



we care



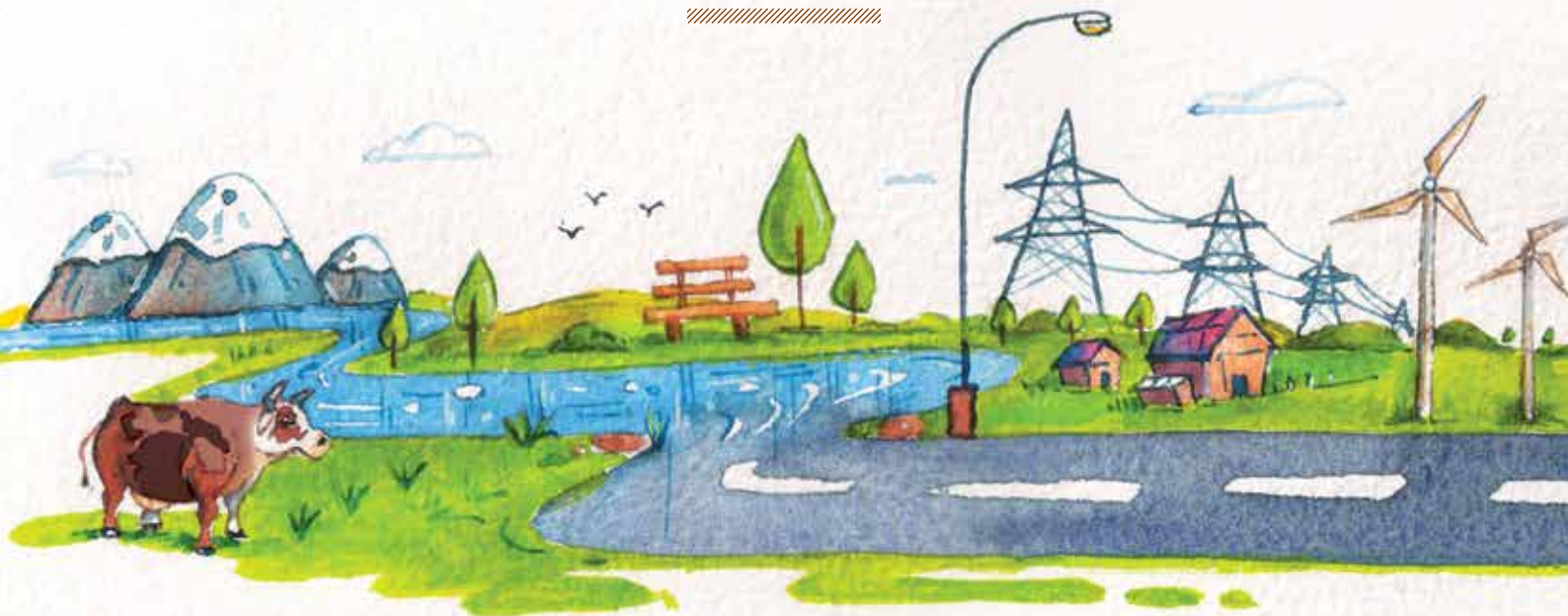
HINDUSTAN ZINC LIMITED



“We do not inherit  
the Earth  
from our ancestors;  
we borrow it  
from our children”



Hindustan Zinc ranked 3<sup>rd</sup> globally  
in Environment in Metals & Mining  
by Dow Jones Sustainability Index 2017





# Towards Nation Building

## ₹ 9,301\* Crore

contributed to Government treasury  
through royalties, taxes and dividends

\*42% of our revenue



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## Forward-looking statements

In this Annual Report, we have disclosed forward-looking information to enable investors to comprehend our prospects and take investment decisions. This report and other statements - written and oral - that we periodically make, contain forward-looking statements that set out anticipated results based on the management's plans and assumptions. We have tried wherever possible to identify such statements by using words such as 'anticipate', 'estimate', 'expects', 'projects', 'intends', 'plans', 'believes', and words of similar substance in connection with any discussion of future performance. We cannot guarantee that these forward-looking statements will be realised, although we believe we have been prudent in assumptions. The achievements of results are subject to risks, uncertainties and even inaccurate assumptions. Should known or unknown risks or uncertainties materialise, or should underlying assumptions prove inaccurate, actual results could vary materially from those anticipated, estimated, or projected. Readers should keep this in mind. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

## VISION

To be the world's largest and most admired zinc, lead and silver company



## MISSION

Enhance stakeholder value through exploration, innovation, operational excellence, safety and sustainability.

Be the lowest cost producer.

Maintain market leadership and enhance customer delight



## VALUES



### Entrepreneurship

Our people are our most important assets. We actively encourage their development and support them in pursuing their goals.



### Integrity

We place utmost importance to engaging ethically and transparently with all our stakeholders, taking accountability of our actions to maintain the highest standards of professionalism and complying with international policies and procedures



### Excellence

Our primary focus is delivering value of the highest standard to our stakeholders. We are constantly motivated on improving our costs and improving our quality of production in each of our businesses through a culture of best practice benchmarking.



### Respect

We lay consistent emphasis on human rights, respect the principle of free, prior, informed consent, while our engagements with stakeholders give local communities the opportunity to voice their opinions and concerns



### Trust

We actively foster a culture of mutual trust in our interactions with our stakeholders and encourage an open dialogue which ensures mutual respect.



### Care

As we continue to grow, we are committed to the triple bottom line of people, planet and prosperity to create a sustainable future in a zero harm environment for our communities



### Innovation

We embrace a conducive environment for encouraging innovation that leads to a zero harm environment and exemplifying optimal utilisation of natural resources, improved efficiencies and recoveries of by-products



# we care

At Hindustan Zinc, the words “we care”  
encapsulate our world view

Simple words but with a depth of meaning. “Care” goes far beyond compliance ...it is our duty to do everything reasonable not only to protect others from harm but also to actively work towards creating a better future. In today’s world where large organisations can impact society in a huge way, it has become critical for us to ensure that our actions are in congruence with our values.

Today, we stand committed to a holistic approach where the well-being of the Environment, Communities and the Nation are the beacons of our operations. It is our firm belief that a philosophy of caring for the environment and our communities will lead to sustained operational performance.





The biggest challenge faced by mankind in the 21st century is the degradation of our environment and consequential climate change. Global warming and rising sea levels are causing unprecedented natural calamities in all parts of the world. Sustainability of our planet is at stake.

Sedentary lifestyles, excessive screen time, advent of artificial intelligence combined with environmental challenges pose a challenge to humanity like never before. We are witnessing increasing stress in agriculture and traditional livelihoods without adequate preparation for the new world which requires retooling of people in a fundamental way. Increasing water scarcity, land degradation and growing income inequalities become the ingredients of social unrest. We are at a tipping point.

How are we addressing this?

*“There was never a night that could thwart sunrise or a problem that could defeat hope”*

**Bernard Williams**

As we look at challenges as varied as climate change, income inequalities and a degraded environment, we have taken it upon ourselves to do things well. Answering these challenge is the soul of our “we care” thought.

We are now looking forward to catapult to a new era where our mines will be more advanced and inclusive. Technology and digitisation are re-defining and re-inventing mining and our operations in many ways. We are enhancing the entire value chain right from beneficiation to smelting to green power to waste management for minimising environmental impact.

We also work diligently with the people in our communities to create long term support systems that solve key problems. Our range of CSR activities cover a spectrum of needs that are increasingly relevant today – from women’s empowerment to reskilling and enhancing the employability of people, to providing better quality education and even to support them in times of distress.

*Corporate Social Responsibility is not about managing, reducing and avoiding risk. It is about creating opportunities, generating improved sustainable profitable performance for people and planet.*

All our efforts are ultimately focused on delivering “we care” as a promise to our nation – financially through taxes, dividends & royalties to the Government; operationally by galvanising the nation’s infrastructure and mining responsibly; and providing gainful employment; all bolstered through our endeavours for the environment and our communities.

We dedicate this Annual Report to our motto of **“we care”**.

# Supporting Manju every step of the way

– because we care

Our CSR projects work in tandem to support people like Manju.

**Manju Khatik** resides near our Rajpura Dariba Complex in Rajsamand district. She has faced one challenge after another in life. Manju was abandoned by her husband for giving birth to a girl and has been fighting a legal case for 9 years to get her husband to pay for her daughter's upbringing. To make ends meet, she did manual labour work in construction sites till an accident at work required insertion of a steel rod.

Unable to do labour work anymore, Manju opened a grocery shop by taking a small loan for her business through our flagship CSR project on women's empowerment, **SAKHI's Self Help Groups (SHGs)**. Eventually, she became President of the SHG.

Manju's daughter got selected in **Unchi Udaan**, our CSR project that provides quality coaching and residential schooling to meritorious students to pursue higher studies.

More challenges were waiting for Manju. Her elder brother who had been her prime support, died in a motor cycle accident. We then stepped in with scholarship support for his 4 children. They are part of **SHIKSHA SAMBAL**, another of our major CSR projects on education that aims to strengthen the learning of Science, English and Mathematics.

This step by step support that Manju received is but one example of how our wide range of CSR activities work with each other and embody **the "we care" motto - not just one time support but long term, sustained support, every step of the way, helping people build lives of dignity.**





# Reaching the last mile

– because we care

We reach out to people in remote areas to deliver our projects and strengthen effectiveness of Government schemes.

**3½ year old Rahul Purbia** and his grandmother Sita of Minnena village near our Chanderiya smelting complex in Chittorgarh district are in an extraordinary situation. Rahul lost his father as an infant. His mother remarried but he was not allowed to live with her. So Rahul is being brought up by Sita who herself has been abandoned by her husband. Sita has a debt of ₹ 3 Lakhs because of which she has lost access to her agriculture land.

Their situation came to light during a field survey done by **Khushi**, our CSR project that is a unique initiative to strengthen effectiveness of the Government's Integrated Child Development Services program for improving well-being of children below 6 years of age.

Our team's spirit of "we care" surfaced and the response to such a dire situation was to first ensure that Rahul is enrolled in the local anganwadi and that he receives his quota of Take Home Ration. They also ensured that Sita receives the nominal pension that she is eligible for and that Rahul gets support from the Palanhar Scheme. Sita had not applied for these Government schemes because she could not even afford the token money required for the application process.

We could find out about Rahul and his grandmother's situation because of our outreach program through which we were able to reach the last mile. However, it is just the beginning of a long journey for Rahul, but he has started on that journey with shy confidence and a smile.





# Bringing light to the visually impaired

– because we care

Everyone enjoys watching movies and that includes blind people. Often blind persons have to rely only on the spoken dialogues to make sense of the movie. Pauses and musical effects are lost as no word is spoken.

A new concept - audio description – where a narrator describes the silent segments of the movie, makes the entire movie accessible to the blind.

Hindustan Zinc under its Jeevan Tarang project organised a special format screening of Aamir Khan's blockbuster movie 'Dangal' for the visually impaired in Udaipur. The movie was edited, with a

narrator describing segments without dialogues. The screening was attended by 110 visually impaired children and adults accompanied by our employees and their families to experience the movie together - a reflection of "we care".

Many more such movies will be screened for a larger group of blind people.

Sachin Porwal, a visually impaired student of Pragya Chakshu school said, *"the audio description format was amazing. The support was superb, the experience was really great. Thank you Hindustan Zinc."*



Raju, a visually impaired student of Udaipur said, *"maine pehli baar movie suni hai, audio description ki help se puri movie samajh mein aayi. Dangal dekhne se bahut prerna mili."* (first time I heard a movie too..., the audio description helped me understand the entire movie. The movie has really inspired me).

We would like to tell Raju that because of the response this initiative received, we are inspired too! And we will continue, in this and different ways, to show that we care.

**110** VISUALLY IMPAIRED  
CHILDREN AND ADULTS  
EXPERIENCED A MOVIE





# Providing a coat of life

– because we care

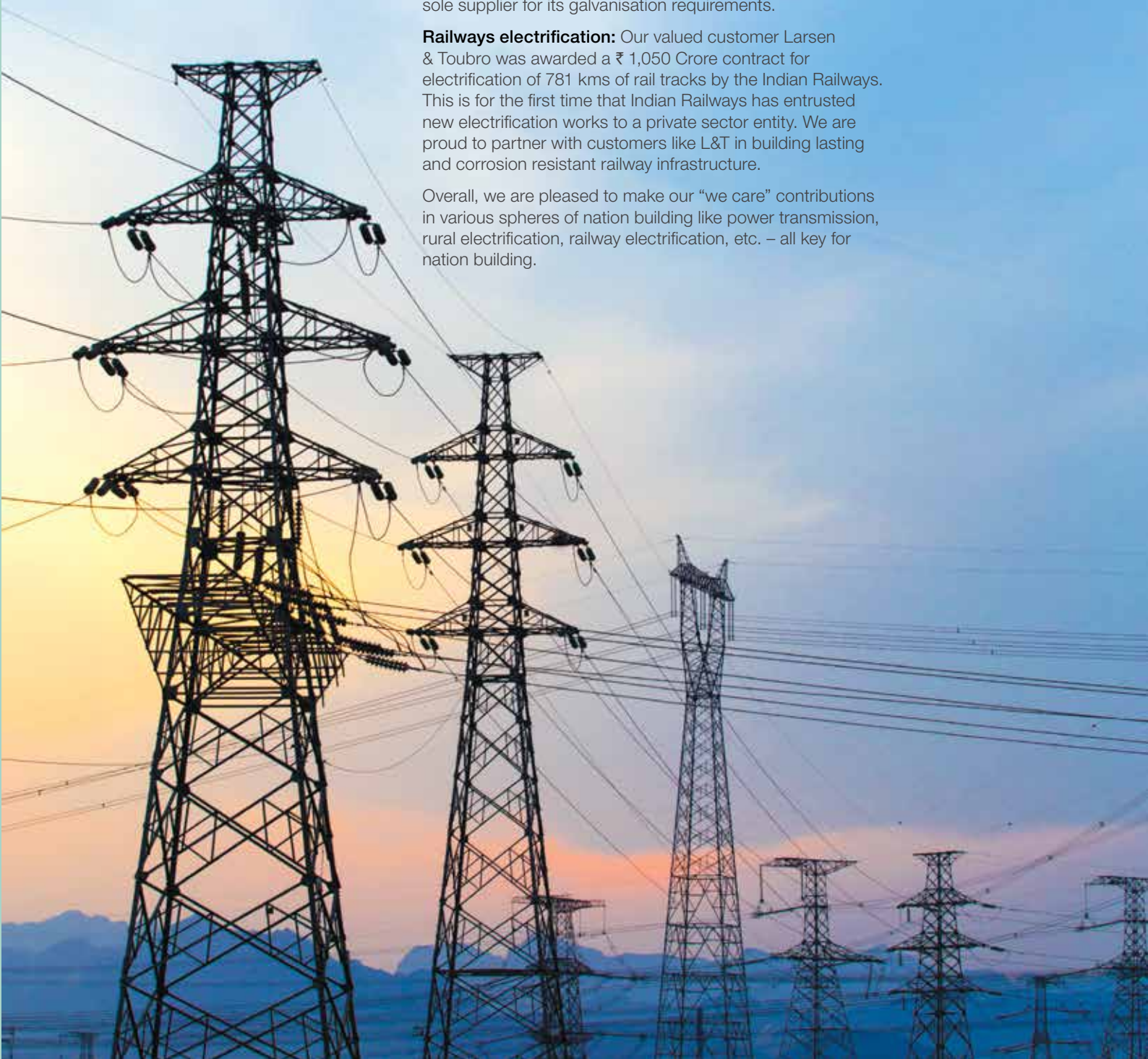
In our own way, we contribute to strengthening the power infrastructure of the country by putting a coat of zinc to steel structures enhancing their safety and life.

**Making power transmission safer:** Skipper is India's largest and one of the world's top 10 Integrated Transmission Tower manufacturing companies. Transmission towers are upto 60 meters in height and need to weather the fury of nature and stand safe and tall for decades. Hindustan Zinc is proud to have done its bit in safeguarding the nation by being exclusive supplier of zinc to Skipper for galvanising its transmission towers.

**Rural electrification:** Similarly, in the rural electrification segment, our customer Bajaj Electrical has recently been awarded orders worth about ₹ 6,000 Crore. We have a long standing relationship with Bajaj and continue to remain the sole supplier for its galvanisation requirements.

**Railways electrification:** Our valued customer Larsen & Toubro was awarded a ₹ 1,050 Crore contract for electrification of 781 kms of rail tracks by the Indian Railways. This is for the first time that Indian Railways has entrusted new electrification works to a private sector entity. We are proud to partner with customers like L&T in building lasting and corrosion resistant railway infrastructure.

Overall, we are pleased to make our “we care” contributions in various spheres of nation building like power transmission, rural electrification, railway electrification, etc. – all key for nation building.





# Solving a city's problem

– because we care

**20** MILLION LITRES  
OF SEWAGE TREATED  
PER DAY

The city of Udaipur was struggling to keep its world famous lakes clean due to dumping of raw sewage into them over decades. At the request of the municipal authorities, Hindustan Zinc set up a 20 million litres per day Sewage Treatment Plant (STP). The project was recognised as one of the best private partnership models and awarded the 'India Today Safaigiri' award 2017 by the Vice President of India, Mr. Venkaiah Naidu.

This project, a result of a forward thinking public-private-partnership, was commissioned in April 2014.

This initiative of treating the city sewage dumped into the lakes has reduced our water footprint by using treated sewage water instead of fresh water at our Dariba smelter while helping to keep the lakes clean and conserving fresh water in the water stressed State of Rajasthan.

**To take things forward and contribute towards 'Swachh Bharat' mission, we have plans to treble the STP capacity by adding 3 additional STPs of which Phase I is now under construction.**





# Reducing land footprint innovatively

– because we care

Across the 3 solar projects, over 190 acres of waste lands will be utilised to generate 40MW of solar power.

Optimising land use innovatively can have a positive environmental impact.

Zinc processing requires large areas of land for permanent storage of mining and smelting waste. We have used the jarosite pond at Debari Smelter and the old tailing dam at Dariba mine to install solar power of 16MW reducing the land footprint by 76 acres. A similar project is under construction on Rampura Agucha waste dump, which will further reduce the land footprint by 115 acres. Across the 3 solar projects, over 190 acres of waste lands will be utilised to generate 40MW of solar power.

Another innovative step in the pipeline is using Fumer Technology in the Jarosite process. The current process generates waste requiring significant land for permanent storage. Through the Fumer technology, this waste is recovered as environment friendly slag, which can then be used in cement manufacturing and construction industries. Fumer will completely eliminate the need of land for storage of waste and help in reducing the land footprint by 1 hectare per annum.



# CHAIRMAN'S MESSAGE



Agnivesh Agarwal - Chairman

Dear Shareholders,

The financial year 2018 was a landmark year marked by record operational and financial performance. The Company delivered highest ever ore, mined metal, refined zinc-lead and silver production driven by its relentless pursuit of efficiency and productivity.

**Further, the buoyancy in zinc market enabled an all-time high EBITDA and Net Profit for the year.** We continue to maintain our position as one of the lowest cost producers globally, even though the recovery in commodity prices led to higher operating costs and offset the leverage of higher volume and cost optimisation initiatives. The Board declared dividends of 400% amounting to ₹ 4,068 Crore including dividend distribution tax during the year.

Rampura Agucha open pit mine, which was commissioned on March 25 1991, delivered its final ore on March 25 2018. For me, it was not just another mine but a manifestation of excellence. Over a period of 27 years, it produced around 79 million MT of ore becoming the world's largest zinc mine. It was an incredible journey of passion and performance.

The world economy has recovered from a period of tepid growth and is in cyclical upswing with revival

in world trade and recovery in commodity prices. The recovery is broad-based across developed and emerging economies and the overall market sentiments are positive. In India, growth during the year was impacted by temporary disruptions from GST roll-out and the fallout from demonetisation, but it is heartwarming to see a strong pick up in investment activity in the second half of the year. We are enthused by the ongoing restructuring and consolidation in domestic steel industry. With zinc metal in short supply due to systematic underinvestment over the last several years, the outlook for zinc price remains buoyant.

To prepare the Company for higher performance, we conducted an organisation restructuring during the year leading to formation of Independent Business Units with the objective of cascading empowerment to drive ownership at the level of action.



## Hindustan Zinc was ranked 11<sup>th</sup> overall globally and 3<sup>rd</sup> in Environment dimension in Dow Jones Sustainability Index in Mining and Metal industry.

I am proud to mention that about 27% of enabling roles in our Company are performed by women, who now form 12% of our employee base and we intend to improve it further.

Our sustainability strategy sets out our resolve to protect and preserve our social license to operate – a license that has remained unbroken for the last 5 decades. The health and safety of our people is our top priority and our goal is 'zero harm'. Despite our best efforts, we had two fatalities at our project sites which is unacceptable. We are committed to eliminate all unsafe acts and behaviours in our operations and project sites. In the last 5 years, injury rate has declined by 69% and reporting of incidents has increased manifold, yet we have a long way to go in our safety transformation journey.

I am delighted that Hindustan Zinc was ranked 11<sup>th</sup> overall globally and 3<sup>rd</sup> in Environment dimension in Dow Jones Sustainability Index in Mining and Metal industry. We are the only Indian mining company and one of the nine Indian companies that have been included in RobecoSAM Sustainability Yearbook 2018.

During the year, we almost doubled our CSR spending to ₹ 92 Crore, touching the lives of half a million people and positively impacting more than 100,000 households. Our first and foremost commitment is towards our communities, for whom we have prioritised our programs and involved

strong and credible local partners to maximise impact. Over a third of our CSR budget is spent on education where we have programmes for all age groups – from creating new age Anganwadis ('Nandghars'), running schools, support for differently abled children to coaching high school students and financially supporting meritorious and needy students for higher education. We also set up a residential Football Academy last year along with 58 community academies including 4 centers exclusively for girls across our 5 districts.

India is poised for stupendous growth on the back of a young population, globalisation, digitisation and reforms, which will fuel higher demand for commodities for developing infrastructure and supporting higher consumption. In this context, we are proud to be associated with 'Make in India' initiative with our plans for higher metal production in future. During the year, we contributed ₹ 9,301 Crore to the Government treasury through royalties, taxes and dividends, which is 42% of our revenues.

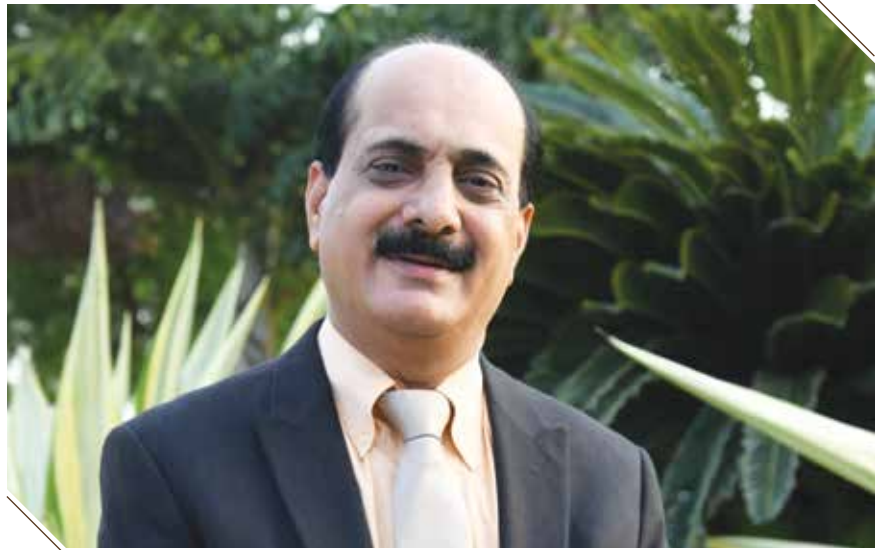
The journey towards 1.2 million MT production that started in 2013 is now in its final stages and expected to be achieved in FY 2020. Our strategic vision is to grow our output to 1.5 million MT per annum and our silver portfolio to 1,500 MT. I am pleased to note that the Board has approved the first phase of this vision to grow our mining capacity to 1.35 mtpa and matching smelting capacity over the next three years. With one of the most successful global transitions from primarily an open-cast to a fully underground mining company, I believe the Company's growth trajectory will transform in the years ahead.

Sincerely,

**Agnivesh Agarwal**  
Chairman

We are the only Indian mining company and one of the nine Indian companies that have been included in RobecoSAM Sustainability Yearbook 2018.

## CEO SPEAK



Sunil Duggal - CEO

Dear Shareholders,

I am pleased to inform that Hindustan Zinc's Silver refinery at Pantnagar Metal Plant has been added to London Bullion Market Association's 'Good Delivery' list, effective from 16th April 2018. I am even more pleased to note that our global silver ranking jumped eight notches to number 10 in 2017, as per Thomson Reuters - Silver Institute. Our silver volumes ratcheted up by 23% to 558 MT in FY 2018. Based on increasing production from our mines and multiple technical initiatives to enhance recovery of silver, we expect to be in the top 5 global silver producers in the next 3-5 years.

The financial year 2018 was a culmination of our 6 years of effort to build a sustainable underground mining business capable of delivering superior business performance. The year marked the completion of operations at Rampura Agucha open cast, which delivered its last ore in March. We are proud of the seamless and one of the most successful transitions globally from a predominantly open cast operation to a fully underground mining company.

Zinc was the leading performer on the LME last financial year with prices up 21%. Zinc market continues to remain tight with metal inventories and spot treatment charges at multi-year lows. The realistic forecast of growth in supplies, both from mine and smelters is not enough to match the growth in demand in 2018 and 2019 and replenish inventories to normal levels for

stable market. This could take 2-3 years till which time zinc price will remain firm.

During the year, we continued our robust performance setting new record of 960kt of zinc and lead metal and 558 MT of silver, delivering growth of 19% and 23% respectively from last year. At 947kt, mined metal production was also an all-time high. EBITDA at ₹ 12,376 Crore was an all-time high growing 27% over previous year. We are targeting another record year of production in FY 2019, in line with our expectation of delivering 1.2 million MT in FY 2020.

The Board has approved Phase I of next phase of expansion which will take **mined metal capacity from 1.2 million MT to 1.35 million MT per annum with matching smelting capacity over next 3 years** at a capital expenditure of about ₹ 4,500 Crore. Phase I will be done concurrently with



the ongoing mining expansion, which is now in its final stages and will take total annual ore production capacity from 17.7 million MT in FY 2020 to 20.4 million MT. Correspondingly on the smelting side, the ongoing debottlenecking of existing smelters will add capacity.

### How is our future growth going to come?

**Resource driven growth:** We want our mine life to remain over 25 years despite depletion even at expanded production rates. For this, our target is to grow the Reserve and Resource (R&R) base through a systematic brownfield exploration programme with continually increasing surface exploration drilling and core drilling to confirm mineable deposits. We have 3 deposits with current R&R of about 100 million MT each or higher and which remain 'open' either at depth or along strike, within our existing mining leases.

**Concurrent expansion of mines:** We are expanding all our mines, each with a mining solution as per the nature of the ore body.

- It was gratifying to see Rampura Agucha underground mine delivering 250kt of mined metal in FY 2018 against just 96kt in the previous year. The mine has already touched a rate of 3 million MT per annum out of the planned annual rate of 5 million MT of ore.
- Sindesar Khurd mine has surpassed all expectations and is already operating at 5 million MT run rate and expected to eventually reach 6.5 million MT per annum. The orebody has expanded with the addition of satellite lenses leading to multiple production centers.
- Zawar group of mines has the highest R&R expansion potential and our strategy is to integrate multiple mines. At Rajpura Dariba, we are upgrading a legacy mine with a new lens now added to main orebody. Kayad mine has already been expanded to its planned capacity and we are adding more reserves through near-mine exploration.

The key growth enabler is the **paradigm shift in mining** wherein

we have created growth capability by inducting subject matter experts in advisory board and partnering with leading global experts for mine design, digitisation and safety. We have invested in growth options through multi-level mining and integrating shaft and declines to enhance mine access and ore hauling. The two shafts at Rampura Agucha and Sindesar Khurd will significantly increase our ore hauling capacity while decline development and shaft upgradation at Rajpura Dariba will increase its overall capacity to 2 million MT per annum. The increase in R&R in Zawar gives us the confidence to raise our target to 5.7 million MT per annum through addition of new production centers.

The biggest impact on our operations will be through ongoing **digital transformation** towards smart, connected intelligent mines which will be safer and more productive. Key features of our future mines will be autonomous drilling, autonomous haulage, remote controlled operations and real-time asset tracking and mine monitoring. I am proud to mention we already have a prototype of such digital mine in Sindesar Khurd and we expect 80% of our entire fleet to be autonomous in the next 3 years. Additional initiatives are being planned to improve recovery, reduce waste footprint, ore fragmentation & sorting and slurry pumping.

During the year, **we spent ₹ 59 Crore on environment related initiatives** continuing to focus on reducing our water and greenhouse gas footprint. We participate in water and carbon disclosure programs of CDP to communicate our sustainability efforts and performance to stakeholders in a transparent and comprehensive manner. Our renewable energy portfolio stands at 324 MW which provides reduction of over 730,000 MT of CO<sub>2</sub> per annum and we plan to increase it further. One of our priorities is conversion of waste into useful and higher value add products for internal consumption as well as to reduce land requirement for storage.

An aspect of our sustainability that I would like to highlight is **technology interventions for waste management, water conservation, climate change**

**and safety.** Our first Fumer project at Chanderiya zinc smelter in FY 2019 will reduce waste, increase metal recovery and reduce land requirement. Doubling of Udaipur's sewage treatment capacity will reduce fresh water intake. We are using internal waste for paste filling of stopes in mines. Remote operations and autonomous fleet in mines keep people away from risk. Some other initiatives in pipeline include ventilation-on-demand in mines to reduce energy consumption and use of advance floatation & ore retreatment technology to increase ore-to-metal ratio will reduce waste and increase output.

We believe in giving back to society and our **social mission is to uplift the lives of people around our operations** and contribute to nation building. Our corporate social responsibility programmes are designed to address a wide range of issues such as education, sustainable livelihood, women empowerment and health, water & sanitation among others. We have gained ground in our social projects which are growing in size and impact while strengthening our governance to make our CSR spending more transparent.

I take special pride in mentioning the persistence and dedication of our employees in building our Company. I would also like to thank all our stakeholders for placing their trust in us and also our regulators for their constant support and guidance.

Sincerely

**Sunil Duggal**  
CEO

# LEADING WITH PRIDE

Hindustan Zinc is the **second largest zinc-lead miner** and **fourth largest zinc-lead smelter** globally

## LEADING ZINC - LEAD MINERS

Mined metal production in '000 MT

Glencore	1,309
<b>Hindustan Zinc*</b>	<b>947</b>
Teck	793
Boliden	368
Sumitomo	342

\* FY 2018 figures

Source: Based on Wood Mackenzie Production Rankings Q4 2017; Hindustan Zinc for company data

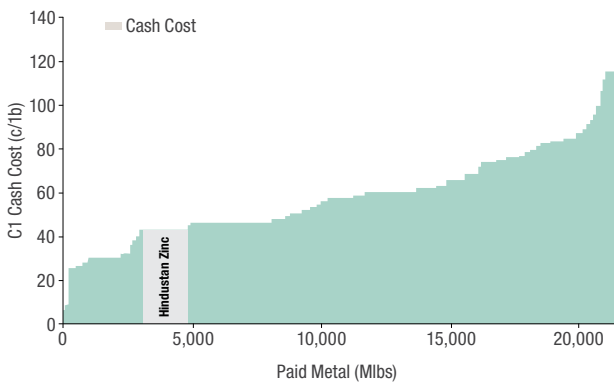
## LEADING ZINC - LEAD SMELTERS

Metal production in '000 MT

Korea Zinc Group	1,600
Glencore	1,439
Nyrstar	1,201
<b>Hindustan Zinc*</b>	<b>960</b>
Yuguang Gold and Lead Co	540

We are among the **lowest cost producers of zinc globally** with cost of production (from ore to refined metal) in the first quartile of global cost curve

## 2018 ZINC MINE, COMPOSITE, C1 CASH COST GROUPED BY COMPANY AND RANKED BY CASH COST (C1)



Source: Wood Mackenzie Ltd, Dataset 2018 Q1

We are among the **Top 10 silver producers** globally

## TOP 10 SILVER PRODUCING COMPANIES

Silver in MT

Fresnillo plc	1,687
KGHM PolskaMeidz	1,244
Glencore plc	1,174
Goldcorp Inc	890
Polymetal International plc	834
Cia De Minas Buenaventura SAA	822
Pan American Silver Corp	777
Hochschild Mining plc	595
Volcan Cia Minera SAA	538
<b>Hindustan Zinc*</b>	<b>526</b>

Source: GFMS, Thomson Reuters



# AWARDS & ACCOLADES

## INDUSTRY EXCELLENCE

- Featured in Forbes list of 'India's Super 50 Companies - 2017'
- Ranked 14<sup>th</sup> in Top 25 Metals and Mining companies by S&P Marketing Intelligence
- Ranked 3<sup>rd</sup> amongst Emerging Market Mining companies by Frontera
- Dun & Bradstreet Corporate Award 2017 in non-ferrous and precious metal category
- ECGC - Best Risk Management Practices Award 2017

## HUMAN RESOURCES

- Great Place to Work Institute - 'Great Place to Work'
- CII HR Excellence Award 2017-18 for "Strong Commitment to HR Practices"

## CORPORATE SOCIAL RESPONSIBILITY

- ET Now CSR Leadership Awards 2018 in Best CSR Practices
- Economic Times and IIM Udaipur - 20<sup>th</sup> rank in Responsible Business 2017
- Bhamashah Award 2016-17 for exceptional contribution in the field of education

## SUSTAINABILITY

- Ranked 11<sup>th</sup> globally in Metals and Mining in Dow Jones Sustainability Index
- '5 Star Rating' by Indian Bureau of Mines, Government of India to Rampura Agucha and Rajpura Dariba mines
- Institution of Engineers Safety Innovation Award
- ICICI Lombard and CNBC TV 18 India Risk Management Award 2018 for Best Sustainability Framework
- CII Sustainable Plus Platinum Label 2016
- CII-IGBC Green Existing Building Platinum Award 2017
- Featured in RobecoSAM Sustainability Year Book 2018 – one of the nine companies in India and the only Indian mining company
- India Today's Safaigiri Award 2017 for Best PPP Model for Sewage Treatment Plant
- National Awards for Excellence in CSR and Sustainability - Best Sustainable Practices, Best Sustainability Report and Best Carbon Footprint



India CSR Leadership Summit awarded Pavan Kaushik with 'CSR Person of the Year 2018' for the campaign – Be Safe-Surakshit Rahiye



Mr. Laxman Shekhawat, COO-Mines receiving Five Star Rating award to Rampura Agucha and Rajpura Dariba mines from Narendra Singh Tomar, Honorable Union Minister of Mine

# BUSINESS MODEL

## FUTURE-PROOFING OPERATIONS

We produce refined zinc, lead and silver metal through our fully integrated operations comprising of mines, smelters, captive power plants and refineries. Our refined metal products are sold primarily in India and balance production is exported.

Hindustan Zinc is an undisputed leader in the key areas of production and cost efficiency. The strategy is to maintain a portfolio of mines with long life and low cost that can remain viable through various stages of the demand-supply cycle. Forward integration with smelting and refining adds further value. Capital allocation aims to maximise shareholders' return by prioritising mining followed by smelting and low cost and reliable captive power.

Adoption of best-in-class mining practices has facilitated smooth transition to underground mining

operation in recent years without any significant impact to the cost structure. Higher metal recoveries from smelters and wealth creation from waste have kept cost in control despite increasing complexity and increasing commodity prices.

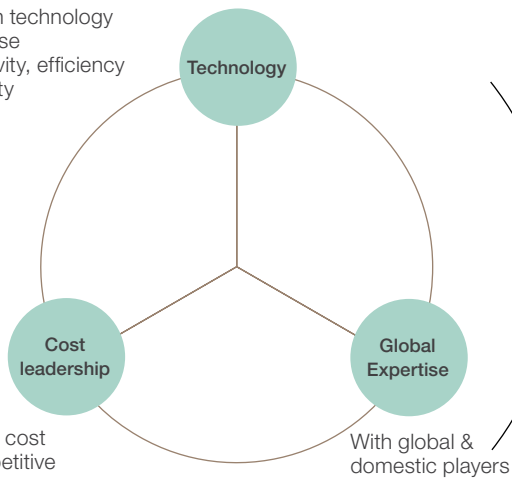
The Company is now working on making these advantages future-proof by focusing on 3 key areas of business operations and have implemented structural changes across the whole value chain to unlock the business potential.



Entering new era of exploration through MCR



Focus on technology to increase productivity, efficiency and safety



Minimise cost for competitive advantage

With global & domestic players

## UNLOCKING BUSINESS POTENTIAL

1.2 million MT in FY 2020

Vision of 1.5 million MT output

### STRUCTURAL INITIATIVES TO UNLOCK BUSINESS POTENTIAL

#### TECHNOLOGY

Technology drive to improve ore to metal index from 0.81 to 0.90

Autonomous machines enabling 24/7 mining to increase production hours by 20% and fleet availability by 15%

Digitalisation of mines for centralised monitoring and control to maximise OEE and improve safety

#### VOLUME

Mined metal of 1.2 million MT in FY 2020  
→1.35 million MT in FY 2021

→Target of 1.5 million MT per annum

Smelter debottlenecking and expansion for mine-smelter synergies

Ore hauling via shafts to reduce cost

#### POWER

Solar power at mines; diversified fuel basket to reduce cost at coal based thermal plants

#### BY-PRODUCT CREDIT

Ancillary unit expansion to recover minor metals from waste

#### LOGISTICS

Optimisation by treating ore, concentrate and WIPs at same location

#### GLOBAL EXPERTISE

Long term partnerships with global mining experts in mine design, mine planning, geotech, digitisation and safety.

### THE NEXT BIG LEAP: OUR FUTURE MINES



We are building a **future workplace** with modern ways of mining by creating a talented pool of mine managers with global exposure, entrepreneurship as well as risk assessment and stakeholder management capabilities and bringing on board specialised external entities to advise on various aspects of mine design and safety.

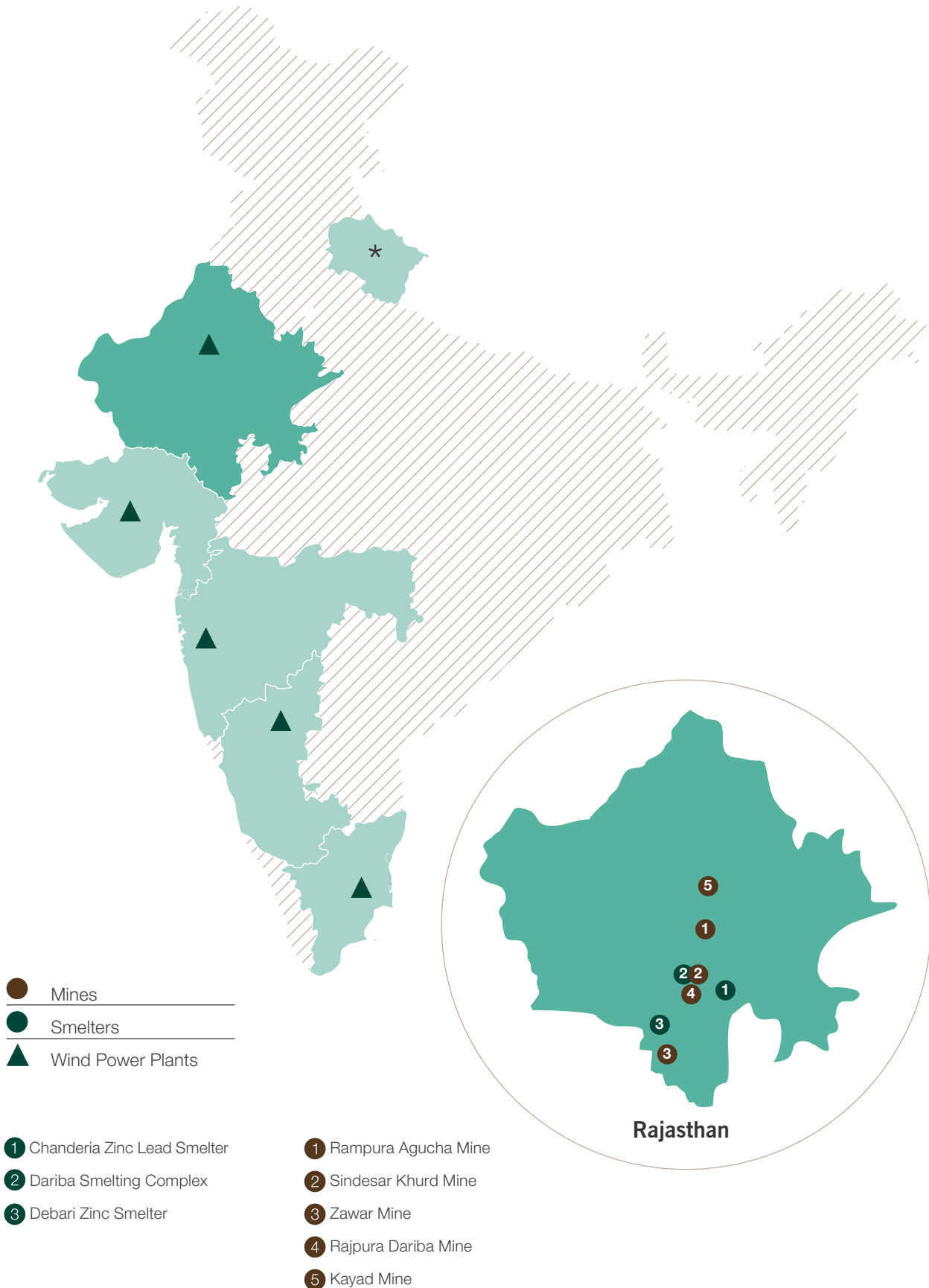
**Remote operation** is our next important priority in order to keep people away from risks through autonomous drilling, loading and haulage while improving productivity.

**Mine digitisation** to enable intelligent mines that are smart, connected, wired and analytical is our top most priority. Creating wi-fi network in underground mines for asset tracking, data communication, underground traffic control and real time equipment health monitoring are some of the aspects of digitised mining.

**Advanced mining** to help improve the qualitative aspects of mining including ore sorting, recovery from tailings, recovery of finer particles and quality concentrate products.

Last but not the least, an **inclusive growth** for everyone associated with us. We wish to impact the quality of life of the communities around us through cultural and behavioural transformation.

# OPERATIONAL ASSETS





**1. RAMPURA AGUCHA MINE**Reserve: **46 million MT**Resource: **50.5 million MT**Reserve Grade Zn: **13.8%**Reserve Grade Pb: **1.9%****2. SINDESAR KHURD MINE**Reserve: **34.6 million MT**Resource: **91.4 million MT**Reserve Grade Zn: **4%**Reserve Grade Pb: **3%****3. ZAWAR MINING COMPLEX**Reserve: **10.4 million MT**Resource: **90.1 million MT**Reserve Grade Zn: **3%**Reserve Grade Pb: **2.1%**Captive Power Plant: **80 MW****4. RAJPURA DARIBA MINE**Reserve: **9.3 million MT**Resource: **50.7 million MT**Reserve Grade Zn: **4.9%**Reserve Grade Pb: **1.7%****5. KAYAD MINE**Reserve: **5.5 million MT**Resource: **2.8 million MT**Reserve Grade Zn: **5.6%**Reserve Grade Pb: **0.8%****1. CHANDERIYA LEAD-ZINC SMELTER**

Pyro-metallurgical Lead Zinc Smelter:

**105,000 tpa** Zinc**85,000 tpa** Lead

Hydrometallurgical Zinc Smelter:

**430,000 tpa**Captive Power Plant: **234 MW****2. DARIBA SMELTING COMPLEX**

Hydrometallurgical Zinc Smelter:

**220,000 tpa**Lead Smelter: **116,000 tpa**Captive Power Plant: **160 MW****3. DEBARI ZINC SMELTER**

Hydrometallurgical Zinc Smelter:

**88,000 tpa**

(tpa = MT per annum)

**WIND POWER PLANTS BY STATE (MW)**Rajasthan: **88.8**Gujarat: **88.8**Maharashtra: **25.5**Karnataka: **49.4**Tamil Nadu: **21.0**

## Notes:

1. We also have a Rock-Phosphate mine at Maton near Udaipur in Rajasthan having capacity to produce 0.18 million MT and Reserve & Resource (R&R) of 8.5 million MT.
2. \*Additional facilities in the state of Uttarakhand for processing and refining of zinc, lead and silver. These do not add to our overall smelting capacity.

**843,000 TPA**

ZINC SMELTING

**201,000 TPA**

LEAD SMELTING

**600 TPA**

SILVER REFINING

**474 MW**

THERMAL POWER

**325 MW**

GREEN POWER

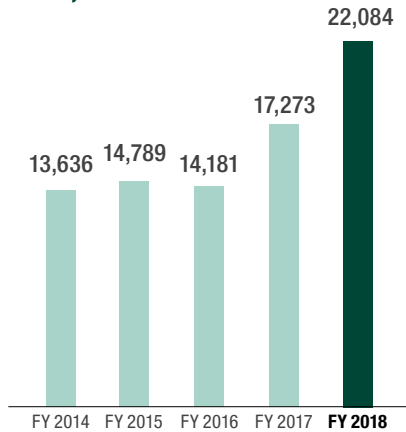
# FINANCIAL HIGHLIGHTS

## SCALING NEW HEIGHTS

### REVENUE FROM OPERATIONS (₹ Crore)

(net of excise duty)

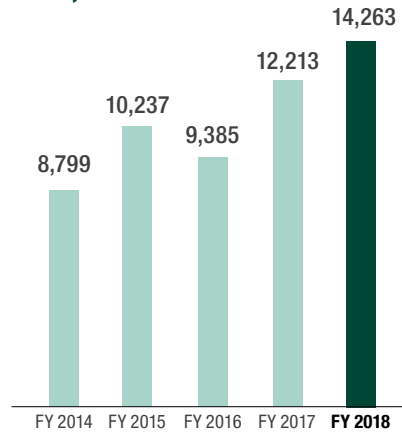
₹ **22,084 CR**



### PBDIT\* (₹ Crore)

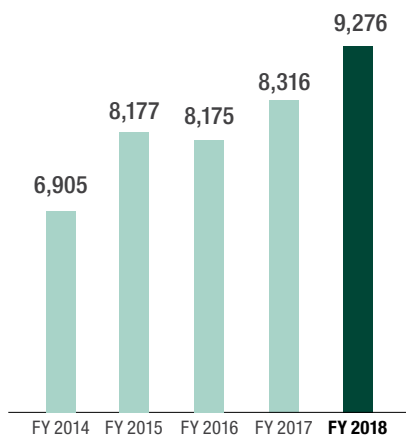
(Profit before Depreciation, Interest & Tax)

₹ **14,263 CR**



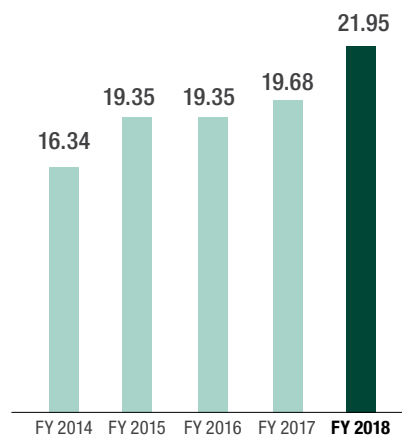
### PAT (₹ Crore)

₹ **9,276 CR**



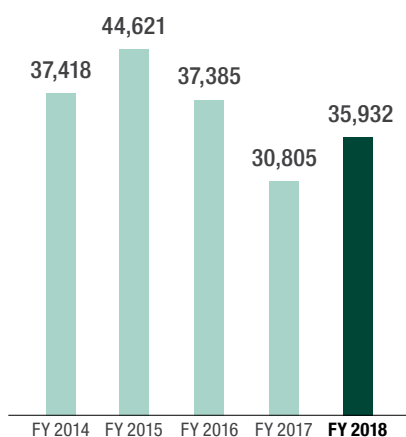
### EPS (₹ per share)

₹ **21.95**



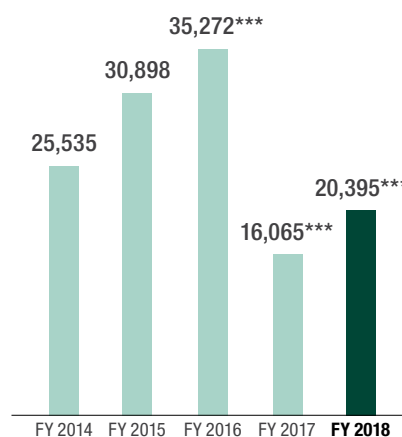
### NET WORTH (₹ Crore)

₹ **35,932 CR**



### CASH & EQUIVALENTS\*\* (₹ Crore)

₹ **20,395 CR**



\* includes Other income and Extraordinary income

\*\*includes Cash & Cash Equivalents and Current Investments

\*\*\*net of dividend account balance and temporary borrowings



# OPERATIONAL HIGHLIGHTS

## SETTING NEW RECORDS

### MINED METAL (MT)

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Zinc	769,897	774,330	744,271	755,964	<b>773,015</b>
Lead	109,821	112,752	144,653	151,020	<b>174,368</b>
Total	879,718	887,082	888,924	906,984	<b>947,383</b>

### TOTAL REFINED METAL (MT)

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Zinc	749,167	733,803	758,938	671,988	<b>791,461</b>
Lead*	129,858	134,898	151,576	144,294	<b>175,193</b>
Silver	388	368	458	480	<b>594</b>

\*Includes Captive Consumption

**947,383** MILLION MT  
TOTAL MINED METAL

**959,708** MILLION MT  
TOTAL REFINED METAL



21 MT Load Haul Dump - one of the largest in India

# BOARD OF DIRECTORS



Mr. Agnivesh Agarwal



Mr. Navin Agarwal



Mr. Sunil Duggal



Mr. A. R. Narayanaswamy

## Mr. Agnivesh Agarwal

### Chairman

Mr. Agnivesh Agarwal was appointed on the Board with effect from November 15, 2005. He is an eminent industrialist with rich knowledge of business operations and extensive experience in efficiently managing large projects, business restructuring and strategic planning. Over the years, he has successfully developed excellent commercial acumen.

Mr. Agarwal is also the Director of Sterlite Iron and Steel Company Ltd., Primex Healthcare & Research Pvt. Ltd., Caitlyn India Pvt. Ltd., Vedanta Medical Research Foundation, Agarwal Galvanising Pvt. Ltd., Fujairah Gold FZC and Caitlyn Ltd.

Mr. Agarwal is a graduate in commerce from Sydhenam College, University of Mumbai.

## Mr. Navin Agarwal

### Director

Mr. Navin Agarwal is the Executive Chairman of Vedanta Ltd. and Executive Vice Chairman of Vedanta Resources Plc. He has been with the Vedanta group since its founding and has extensive experience in the natural resources industry.

Mr. Agarwal plays a key role in the strategic and governance framework of the Vedanta Group and provides leadership for its long-term planning, business development and capital planning. He has been instrumental in the growth of the group through global organic projects as well as acquisitions. He is passionate about developing leadership talent for the group by identifying and nurturing future leaders.

## Mr. Sunil Duggal

### CEO & Whole-time Director

Mr. Sunil Duggal was appointed as CEO & Whole-time Director on October 1, 2015. Mr. Duggal is a result oriented professional with over 34 years of experience of leading high-performance teams and more than 20 years in leadership positions. He is known for his passion for excellence in operations and focus on safety.

He has an electrical engineering degree from Thapar Institute of Engineering & Technology, Patiala.

Mr. Duggal has been honoured with Rajiv Gandhi Award for Environment Excellence. He is also the Vice Chairman of International Zinc Association; President of India Lead Zinc Development Association; Chairman of Skill Council for Mining sector; Chairman FIMI Non Ferrous Metals Committee, Co-Chair of FICCI Non Ferrous Metals Committee 2017 and Director in Federation of India Mineral Industries.

## Mr. A. R. Narayanaswamy

### Director

Mr. Narayanaswamy is on the Board since March 2009. He is a member of the Institute of Chartered Accountants of India and has an extensive industry experience. He is also on the Board of Sterlite Technologies Limited, Sterlite Grid 1 Ltd., Bharat Aluminium Company Ltd., MALCO Energy Ltd., Sterlite Power Grid Ventures Limited, Sterlite Grid 2 Ltd., Vizag General Cargo Berth Pvt. Ltd., IBIS Softec Solutions Pvt. Limited and IBIS Systems & Solutions Pvt. Limited.





Ms. Reena Sinha Puri



Mr. Arun L. Todarwal



Ms. Farida M. Naik



Mr. Sudhir Kumar

## Ms. Reena Sinha Puri

### Director

Ms. Reena Sinha Puri was appointed on the Board with effect from December 29, 2016. She is an officer of the Indian Revenue Service. Currently, she is Joint Secretary and Financial Advisor in the Ministry of Mines and has held various positions in the Income Tax Department and was seconded to the Tax Department of Government of Botswana.

She completed her Bachelor and Masters in Political Science from Punjab University, Bachelor of Law from Delhi University and Masters in Public Policy from National University of Singapore.

She is also on the Board of Bharat Aluminium Company Ltd., Coal India Ltd. and Northern Coalfields Ltd.

## Ms. Farida M. Naik

### Director

Ms. Farida M. Naik was appointed on the Board on March 14, 2017. She is currently a Director in Ministry of Mines, Government of India. She has held various positions in different ministries and departments of Central Government, which includes her last stint as Joint Director of National Book Trust.

She is an alumna of Sophia College, Mumbai from where she graduated in Psychology.

## Mr. Arun L. Todarwal

### Director

Mr. Todarwal is on the Board since March 2015. He is a member of the Institute of Chartered Accountants of India and has extensive experience in Taxation, Statutory Audits, Due Diligences, Arbitrations and Joint Ventures. He is also on the Board of Sterlite Technologies Ltd., Anuh Pharma Ltd., SREI Mutual Fund Trust Pvt. Ltd., Welspun India Ltd., Welspun Global Brands Ltd., Sterlite Grid 1 Ltd., Sterlite Grid 2 Ltd. Lakecity Ventures Pvt. Ltd., Malco Energy Limited, Sterlite Power Transmission Limited and PTC Cables Pvt. Ltd..

## Mr. Sudhir Kumar

### Director

Mr. Sudhir Kumar was appointed on the Board in November 2015. He has held senior managerial position in different ministries and departments of the Central Government, which includes his last stint as Secretary, Department of Food and Public Distribution in Ministry of Consumer Affairs, Food and Public Distribution.

He holds Master of Science in Physics and Bachelor of Science in Physics, Chemistry and Mathematics.

# EXECUTIVE COMMITTEE



Bottom row (left to right): Barun Gorain, RP Dashora, Laxman Shekhawat, Sunil Duggal, Amitabh Gupta, Pankaj Kumar  
Top row (left to right) Mahesh Todkar, Rajesh Kundu, Ramakrishnan Kasinath, KC Meena, Scott Caithness

**Sunil Duggal**  
**Chief Executive Officer**

With Hindustan Zinc from:  
August 10, 2010

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Industry Experience: 34 years

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Previous Companies: Ambuja Cement,  
Cement Corporation of India

**Amitabh Gupta**  
**Chief Financial Officer**

With Hindustan Zinc from:  
November 23, 2011

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Industry Experience: 31 years

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Previous Companies: Ranbaxy Lab,  
Cargill India, TeleTech India (Bharti  
Group), Moser Baer Solar

**Laxman Shekhawat**  
**Chief Operating Officer - Mines**

With Hindustan Zinc from:  
October 20, 1990

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Industry Experience: 28 years

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Previous Companies: NA

**Pankaj Kumar**  
**Chief Operating Officer - Smelters**

With Hindustan Zinc from:  
March 1, 2017

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Industry Experience: 28 years

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Previous Companies: Tata Steel, Mittal  
Steel, Sterlite Copper, Adani Ports,  
United Breweries, Gujarat Guardian

**RP Dashora**  
**Site President – Rampura Agucha IBU**

With Hindustan Zinc from:  
April 17, 1988

Industry Experience: 30 years

Previous Companies: AGRC (2002-2004), Arcelor Mittal (2010-2011), JSW (2011-2012)

**KC Meena**  
**Site President - Dariba Mining IBU**

With Hindustan Zinc from:  
October 5, 1990

Industry Experience: 27 years

Previous Companies: Konkola copper mines (2009-2013)

**Rajesh Kundu**  
**Site President – Zawar IBU**

With Hindustan Zinc from:  
January 18, 2007

Industry Experience: 27 years

Previous Companies: Usha Martin and Dunlop India

**Mahesh Todkar**  
**Head Projects**

With Hindustan Zinc from:  
July 6, 2013

Industry Experience: 27 years

Previous Companies: Mahindra Ugine Steel Co, Ispat Industries, Hadeed, DUBAL

**Ramakrishnan Kasinath**  
**Chief Commercial Officer**

With Hindustan Zinc from:  
September 23, 2015

Industry Experience: 26 years

Previous Companies: SKF India Ltd., J&J, South India Corporation, Best & Crompton Engineering

**Scott Caithness**  
**Director – Exploration**

With Hindustan Zinc from:  
November 2, 2015

Industry Experience: 35 years

Previous Companies: Indian Pacific Resources, Indophil Resources, Scott Caithness Research, CRA Exploration, Rio Tinto, Bougainville Copper

**Heath Thorpe** (not in the picture)  
**Chief Health, Safety & Environment Officer**

With Hindustan Zinc from:  
March 18, 2018

Industry Experience: 16 years

Previous Companies: NOSA

**V Jayaraman** (not in the picture)  
**Head – Health, Safety & Environment**

With Hindustan Zinc from:  
April 7, 2006

Industry Experience: 19 years

Previous Companies: MALCO, BALCO

**Neelima Khetan** (not in the picture)  
**Head - CSR**

With Hindustan Zinc from:  
November 16, 2015

Industry Experience: 34 years

Previous Companies: Coca-Cola, American India Foundation, IRMA, Seva Mandir, PRADAN

**Barun Gorain**  
**Chief Technology & Information Officer**

With Hindustan Zinc from:  
March 5, 2018

Industry Experience: 24 years

Previous Companies: Barrick Gold Corporation, Teck-cominco, Mount Isa

**Sanjay Sharma** (not in the picture)  
**Interim Head – HR**

With Hindustan Zinc from:  
December 29, 2011

Industry Experience: 32 years

Previous Companies: J.K. Cement, Global Steel Holding, AGRC, L&T



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## BUSINESS REVIEW

### INDUSTRY

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Strong  
fundamentals.  
Robust  
outlook.

**14.8** MILLION MT

EXPECTED ZINC CONSUMPTION IN 2018

**13.6** MILLION MT

EXPECTED MINE SUPPLY IN 2018

**8%** CAGR

CONSTRUCTION SPENDING IN INDIA TO FUEL DOMESTIC ZINC DEMAND

**6%** CAGR

PRIMARY LEAD CONSUMPTION IN LAST 5 YEARS

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# ZINC

Zinc was the leading performer on LME last financial year with prices up 21%. The year was marked by a sharp decline in finished goods stocks and reduced zinc supply from China for most part of the year. The combination of scheduled mine closures, strategic production cuts and the impact of tighter environmental norms in China resulted in scarcity of zinc mined metal driving treatment charges (TCs) to multi-year lows. The consequent constraints on refined production ensured that the rally in the zinc price that started in 2016 gained momentum in 2017.

## PRICE TREND (USD/MT)



Zinc market fundamentals remain robust with global zinc consumption expected to grow by 2.5% to 14.8 million MT in 2018 while mine supply will likely be 13.7 million MT. Despite increase in mine supply in 2018 on the back of enhanced mine supplies, the imbalance in the mined metal market is expected to continue for some more time. The expected new supply from Century Tailings project along with Glencore's Lady Loretta and Vedanta's Gamsberg mines are expected to add 500-700kt, which will be easily absorbed without disturbing the market balance. The market is likely to become balanced only in the latter half of 2019.

	2016		2017		2018	
	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)
Mine Production	12,356	-6.1	13,158	6.5	13,724	4.3
Smelter requirement	13,133	-1.2	13,073	-0.4	13,630	4.3
Upstream Surplus/Deficit	-777		85		94	

	2016		2017		2018	
	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)
Refined Production	13,585	-0.9	13,599	0.1	14,232	4.7
Consumption	14,095	2.2	14,429	2.4	14,793	2.5
Downstream Surplus/Deficit	-510		-830		-561	

Source: Wood Mackenzie, March 2018

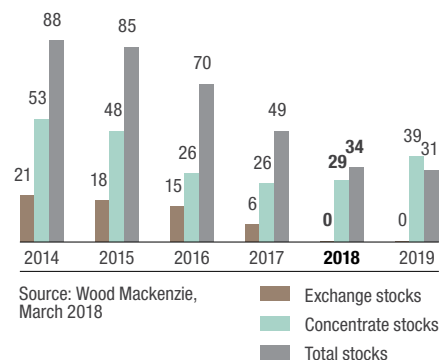
## UPSTREAM HIGHLIGHTS

LME and SHFE zinc stocks around the world fell to record low levels equivalent to around 6 days of global consumption in 2017 while aggregate stocks fell sharply to 40 days.

Voluntary and involuntary mine production cuts in 2015 and 2016 caused the rapid draw down of global inventories of zinc concentrate during 2017. In 2017, low concentrate stocks constrained refined production in China. These constraints, together with global demand growth of 2.4%, depleted exchange as well as off-exchange stocks of refined zinc which have now been forecast to fall to critically low levels which is equivalent to 40 days of global consumption as per the latest data released by Wood Mackenzie in March, 2018.

## GLOBAL METAL BALANCE TRENDS

(in number of days of consumption)

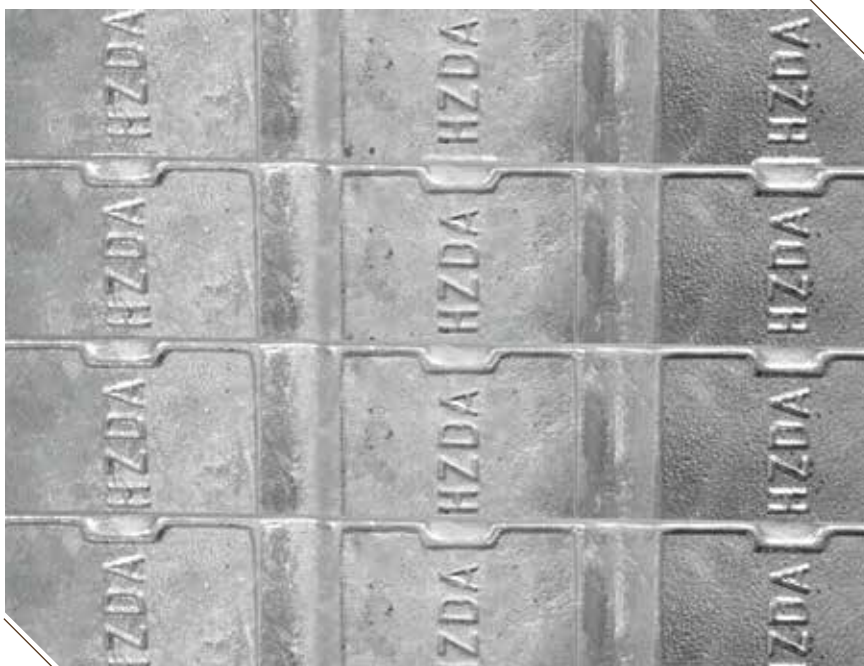


## DEMAND TRENDS AND OUTLOOK

Global macroeconomic scenario during FY 2018 sent mixed signals to the market. Although conservative trade policies driven by the USA threatened to negatively impact trade relations with EU and China, there was a synchronised global economic growth underpinned by rising investments and overall trade growth. Last year saw healthy increase in zinc consumption in the three major consuming regions - Asia, Europe and North America.

Demand growth in China from the real estate & automotive sectors and the 'One Belt One Road' initiatives was partly offset by the impact of pollution control measures during the year. Europe recorded a surprising revival in growth in industrial activity in Germany and France driven by uptick in their domestic consumption along with a major push for technology and engineering product exports. With falling unemployment, rising Fed rates and changing trade policies in the USA, there is already higher consumption demand along with fresh investments targeted at promoting exports.

In India, given 70% of the demand coming from galvanising, zinc consumption in the near term will benefit from the ongoing restructuring of the steel industry and adherence to upcoming IS277 coating standards. Alloys & die cast alloys have increasingly been finding applications across sectors. Over the next five years, zinc demand in India will be a beneficiary of higher construction spending, which is expected to increase at around 8% CAGR with projects under the metro rail, Smart Cities Mission and Swachh Bharat Abhiyan (clean India) driving investments in urban infrastructure.



Diversified product portfolio, in line with 'Make in India' Vision



## LEAD

Lead, zinc's sister metal, was in significant deficit in 2017 driven by shortage in mine supply whereas tightness in the scrap market could not offset this shortage. Overall, refined production grew at 1.1% in 2017 to 12.4 million MT and fell short of lead demand which recorded a 2.2% growth.

	2016		2017		2018	
	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)	VOLUME (KT)	GROWTH (%)
Mine Production	5,308	-0.7	5,459	2.8	5,558	1.8
Primary Refined Production	5,699	4	5,758	1	5,923	2.8
Total Refined Production	12,281	4.1	12,421	1.1	12,630	1.7
Total Refined Consumption	12,268	4.2	12,535	2.2	12,671	1.1
Refined Market Balance	13		-114		-41	

Source: Wood Mackenzie, March 2018

During 2017, acute deficit in upstream lead concentrate market caused spot TCs to turn negative as smelters pushed for capacity utilisation. Refined lead deficit in 2017 was around 114,000 MT while forecasts hint at a reduced deficit of 41,000 MT in 2018. Subsequently, the market is expected to reach a fine balance. The supply of lead concentrate by mines is forecast to remain tight to 2021.

Global demand is expected to remain steady at about 2%-3% per annum over the next few years with passenger and commercial vehicle sales driving lead consumption. Despite Li-ion battery packs standing at the pole position to cash-in on the electric vehicle wave, lead-acid batteries will continue to provide an economic advantage over other emerging energy storage technologies in the foreseeable future.

In India, primary lead consumption has grown at over 6% CAGR for the past five years primarily driven by growth in the automotive segment which comprises 55% of consumption. Non-auto consumption in telecom and power back-up segment has performed even better.

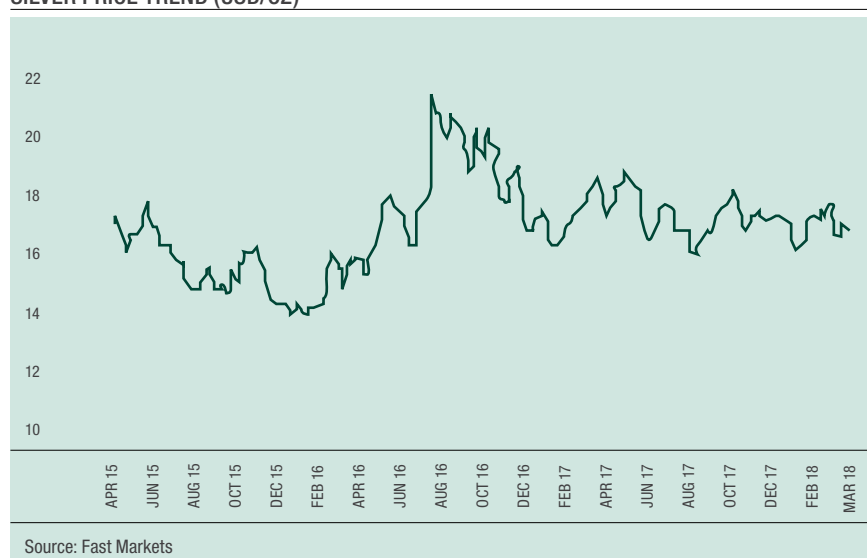


Hindustan Zinc is the largest supplier of lead in India

## SILVER

The silver market recorded another year of deficit in 2017 due to fall in mine supply by 4%. Supply of silver remained constrained during the last year as 70% of annual silver production is as by-product of copper, zinc and lead extraction process for which the mine supply remained subdued in 2017.

SILVER PRICE TREND (USD/OZ)



	2016		2017	
	VOLUME (MT)	DECLINE (%)	VOLUME (MT)	DECLINE (%)
Mine production	27,638	-0.7	26,503	-4.1
Total Supply	31,395	-3.3	30,841	-1.8
Physical Demand	32,406	-10.5	31,650	-2.3
Upstream Surplus/Deficit	-1,010		-808	

Silver demand also fell during the year due to investor preference for equities and new elements like cryptocurrencies. Usage of silver in jewelry and industrial applications grew during the year. The exponential increase in solar energy in recent years is underpinning the demand for industrial silver. There was a 19% uptrend last year in industrial demand for the grey metal in solar panels.

Silver is likely to face headwinds from higher interest rates, but rising inflationary expectations and the likelihood of raised geopolitical tensions may well see recovery in investor interest. Silver is expected to perform strongly primarily driven by solar PV sector and increased vehicle electronics applications along with rising incomes in Asia giving a push up to jewellery demand.





Overview of Pantnagar Metal Plant in Uttarakhand



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## BUSINESS REVIEW

### OPERATIONS

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# Mining new dimensions

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**12.6 MILLION MT**

RECORD ORE PRODUCTION

**27%**

INCREASE IN UG ORE PRODUCTION

**947,383 MT**

RECORD MINED METAL PRODUCTION

**959,708 MT**

RECORD REFINED SALEABLE ZINC-LEAD PRODUCTION

**557 MT**

RECORD SALEABLE SILVER PRODUCTION

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## MINES

We take immense pride in being India's largest and world's second largest zinc-lead miner with fully integrated operations. With more than 50 years of operational experience, we give highest priority to safety of our people and conservation of scarce natural resources through technology and innovation. In our quest to benchmark against global best practices, our approach towards mining is beyond just compliance.

### PERFORMANCE IN FY 2018

('000 MT)

	ORE MINED		ZINC				LEAD			
			FEED GRADE (%)		MINED METAL		FEED GRADE (%)		MINED METAL	
	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017	FY 2018	FY 2017
Rampura Agucha Mine (RAM)	3,842	4,701	11.4	10.4	438.0	483.2	1.6	1.6	41.6	45.6
Sindesar Khurd Mine (SKM)	4,500	3,665	3.9	3.8	162.7	118	2.1	2.0	84.1	60.2
Rajpura Dariba Mine (RDM)	896	746	4.8	5.2	37.2	31.4	1.1	1.2	7.1	6.1
Zawar Mine (ZM)	2,176	1,770	2.5	2.7	40.1	38.6	2.0	2.1	30.8	30.0
Kayad Mine (KM)	1,200	1,000	8.7	10.0	101.1	84.9	1.2	1.4	10.8	9.1
<b>Total</b>	<b>12,614</b>	<b>11,881</b>	<b>6.6</b>	<b>7.6</b>	<b>773.0</b>	<b>756.0</b>	<b>1.8</b>	<b>1.8</b>	<b>174.4</b>	<b>151.0</b>



Promoting young talent and gender diversity

Ore production was 12.6 million MT in FY 2018, an increase of 6% from a year ago, supported by 27% increase in ore production from underground mines. Ore production during the year was impacted by lower production at RAM open cast as it ramped down during the year, which was more than offset by higher production from underground mines at 10.9 million MT. The ongoing expansion projects has led underground mine production ramp up to a rate of about 13 million MT per annum in the last quarter of the year.

### MINING - OVERVIEW

	UNDERGROUND MINING METHOD	RESERVE & RESOURCE (MILLION MT)
RAM	Long hole open stoping with paste filling	96.5
SKM	Long hole open stoping with paste filling	126
RDM	Blast hole stoping with hydraulic filling	60
ZM	Long hole open stoping	100.5
KM	Long hole open stoping with CRF	8.3
<b>Total</b>		<b>411.3</b>

## RAMPURA AGUCHA MINE (RAM)

RAM is the second largest zinc mine in the world with a production of 3.9 million MT in FY 2018. RAM stands apart as a world class ore body with zinc-lead reserve grade averaging 15.7%.

The ongoing underground mine project is being developed with a vision of producing 5.0 million MT per annum ore production. The underground route has achieved a fast ramp from 0.4 million MT per annum in FY 2015 to 2.1 million MT per annum in FY 2018 and has ramped up its mine development from 8.4 km in FY 2015 to 20 km in FY 2018.

### INFRASTRUCTURE UPGRADATION AND MINE IMPROVEMENT INITIATIVES

RAM has collaborated with leading global mining partners to implement world class mining practices and achieve the planned ramp up of mine development and ore production.

The ongoing underground mine project includes a main production shaft of 955m depth, 7.5m diameter and hauling capacity of 3.75 million MT per annum; two ventilation shafts, two declines from surface and paste fill plants.

During the year:

- The main production shaft was sunk & furnished and winding installations, skip loading arrangements & surface conveyors work was completed
- Main shaft hoisting and south ventilation systems were commissioned
- Paste fill plant was commissioned to fill stope voids to provide greater ground stability and faster turnaround of the stoping cycle

The main production shaft is expected to commission in FY 2019 with early ore and waste hoisting planned from October 2018 while crushing and hoisting system is expected to be commissioned by March 2019.

RAM has set high standards and zero compromise policy on safety initiatives with the highest priority to people safety. The mine site has a world class, fully equipped refuge chambers and rescue team to support any emergency situation.

### AWARDS & RECOGNITIONS

RAM received Five Star Rating for exemplary performance in implementation of Sustainable Development Framework by Indian Bureau of Mines, Government of India.

RAM has also received 8th Rajasthan Energy Conservation Award 2017.

### IMPROVING AIR QUALITY AND SAFETY

Rampura Agucha Mine installed JACON WATER CANON, a water spraying equipment which is used not only for dust suppression but also for firefighting. It improves air quality by suppressing the dust generated on haul roads as well as on freshly blasted stope. As a safety equipment, it loosens the hanging rock pieces through pressure of water nozzle and is also used in firefighting as its nozzle can rotate 360 degree.

### REFUGE CHAMBER

We have installed a Refuge Chamber that provides a place of safety in case of emergency situations like fire, rock fall, blockage of escape routes etc. in the underground mines, which is designed to provide life support system up to 36 hours. During the year, additional 4 chambers of 8 seater capacity were installed at Rampura Agucha underground site.



Longhole solo drill rig for accurate drilling



## RAJPURA DARIBA MINE (RDM)

RDM is an underground lead-zinc mine with reserve grade of 6.6% and is one of our oldest mines where mining operations began in 1983. The mine achieved its highest ever ore production of 0.9 million MT and highest ore treatment of 1.0 million MT during the year. Mine is presently accessed via decline and main shaft.

Similar to SKM, RDM orebody also allows for multiple production centers in future with potential to mine 2.0 million MT per annum of ore. An exploration program is under process to identify additional resource.

### INFRASTRUCTURE UPGRADATION AND MINE IMPROVEMENT INITIATIVES

As part of the ongoing capacity expansion plan, RDM will be ramped up to 1.5 million MT of ore production capacity by FY 2020. This will be achieved by development of decline, shaft hoisting system upgradation, hydro fill plant, beneficiation capacity as well as new and upgraded surface and underground infrastructure.

During the year, following key milestones were achieved:

- Connectivity of decline completed making all parts of the mine accessible through decline
- Development of underground workshop in progress
- Commencement of additional mining blocks
- Debottlenecking of decline to mine to depth of 500 m with trucking
- Technical evaluation for optimisation of shaft hoisting capacity

During the year, several productivity and efficiency measures were undertaken of which the key ones are:

- Leaky feeder communication system to improve equipment performance, productivity and safety
- Rock breaker installed in underground crusher to improve fragmentation for higher metal recoveries during beneficiation
- To improve load carrying capacity of trucks, a monitoring system in form of a load scanner installed thereby minimising carry back and reducing hauling cost

- Hydraulic fill plant was upgraded to improved and consistent density filling, thereby leading to improved stope cycle time, reduced water in filling as well as better hygiene
- In order to strengthen ventilation system, raise boring was done at different levels
- To improve dewatering by sludge cleaning in sump, mud pump has been introduced to pump the slurry from underground to surface

### AWARDS & RECOGNITIONS

Rajpura Dariba Mine received Five Star Rating for exemplary performance in implementation of Sustainable Development Framework by Indian Bureau of Mines, Government of India.

The mine was declared as an overall winner of Mine Environment & Mineral Conservation Week, 2017.



Training on Simulator for skill upgradation

## SINDESAR KHURD MINE (SKM)

SKM is India's largest underground mine with production of 4.5 million MT in FY 2018. With average reserve grade of 7%, the mine differentiates itself with its silver-rich zinc-lead deposit and highly mechanised and low cost of operations.

The mine production began in April 2006 and has undergone several phases of expansions from 0.3 million MT to its current capacity of 4.5 million MT. SKM lies on the same geological belt as the Rajpura Dariba mine. Access to the mine is presently through declines (North and South) while ore hauling is planned to start through shaft in FY 2019.

SKM consists of multiple standalone deposits or auxiliary lenses, which provide for three production centres. To achieve the targeted production rate of 6.0 million MT, production from the main lens is envisioned at 3.5 million MT per annum and the auxiliary lens are planned for a production of 2.5 million MT per annum.

### INFRASTRUCTURE UPGRADATION AND MINE IMPROVEMENT INITIATIVES

SKM continues to scale new milestones in its operations as well as infrastructure and innovation. The mine has achieved ore production rate of 5.0 million MT per annum in the final quarter of FY 2018 while mine development was steady at 18 km compared to last year.

As part of the ongoing mine expansion plan, the main production shaft of 1,050m depth, 7.5m diameter and 3.75 million MT hauling capacity is under development. During the year, the equipping of the main shaft was completed. Post its expected commissioning in the third quarter of FY 2019, the total hauling capacity of the mine will increase to 6.0 million MT per annum. Concurrently, construction of the second new 1.5 million MT per annum mill is in full swing and expected to commission in the middle of this year.

During the year, Sindesar Khurd implemented several measure to improve productivity and cost. Key initiatives were:

- Under Digital Mine project, the 'SKA6 section' of the mine has been fully converted to wi-fi and successfully commissioned the first phase of OPTIMINE system in trucks for health monitoring of machine
- Autonomous drill rigs from leading manufacturers were commissioned allowing drill holes in autonomous mode and being utilised in shift changeover hours to increase utilisation
- Highest capacity Load Haul Dump machines of 21 MT capacity and tele-remote Loaders were implemented to utilise shift-changeover hours

- LPDT of 65 MT hauling capacity were introduced in the fleet
- Lechler system introduced for dust suppression in stopes which has improved loader productivity and safety
- Mine control room was established to enhance communication during shift thereby improving utilisation and mean time to repair

Several green initiatives were undertaken during the year to promote healthy environment. Notable among these include efforts to reduce paper consumption by adopting paperless reporting, online monitoring of ambient air quality by installing Continuous Ambient Air Monitoring Stations, relocating trees during road widening and conducting trials to suppress dust generation from hauling road by using Dustron Nano in water spray.

### AWARDS & RECOGNITIONS

Sindesar Khurd has been awarded National Energy Conservation Award and Rajasthan Energy Conservation Award in 2017.



M2C Automatic Face drill Machine



## TRANSFORMING SINDESAR KHURD TO A FULLY DIGITAL MINE

The mine is being transformed from a mechanised mine to a fully digital mine, providing much greater transparency across the value chain and enabling us to maximise efficiency, improve safety and reduce the cost of operations.

A pilot scheme to digitise over 1.5 km of decline and portals has already been successfully implemented in partnership with global technology experts and full roll-out across the mine is now in progress. Once fully operational, the project will allow monitoring and optimisation of assets, traffic management, improved scheduling and task management, autonomous fleet operations and real time visibility of machine health and productivity data.

As a result, we expect to see a wide range of benefits including:



**increased utilisation**  
across all fleet



**timely maintenance checks** improving  
safety and equipment  
availability



**ability to activate ventilation on demand**,  
leading to potential  
energy savings of 15%



**increase the fill factor**  
of trucks to 100%



**increased mine throughput and volumes** with better  
traffic management &  
safety



## ZAWAR MINES (ZM)

ZM has now been upgraded to the status of a mega mining complex based on revised R&R potential and consists of four mines namely Mochia, Balaria, Zawar Mala and Baroi with average zinc-lead reserve grade of 5.1%. Zawar group of mines are a symbol of the Company's legacy with constant addition to its reserve and resource base. Access to the mines as well as ore hoisting hauling is through shaft decline. During the year, ZM produced 2.18 million MT of ore as compared to 1.77 million MT in FY 2017.

### INFRASTRUCTURE UPGRADATION AND MINE IMPROVEMENT INITIATIVES

Ore production capacity at ZM is planned to progressively increase to 4.5 million MT per annum by FY 2020. This will be achieved through mechanised mining as well as development of new crusher system, raise boring, beneficiation plant and surface & underground infrastructure. During the year, following were the main developments in expansion project:

- Total mine development and production run-rate was ramped up to 26 km and 3 million MT per annum respectively
- The new Mochia and Baroi declines were connected to production level enhancing its hauling capacity. Mochia-Balaria portal & North Baroi were developed as new entry locations
- The mill was debottlenecked to 2.7 million MT per annum with plans to increase overall capacity
- Underground exploration of 88 km and surface exploration of 39 km was carried for converting resource to reserve and finding additional resources in lateral and depth extension
- Major infrastructure development including ventilation fans, primary crushers, workshops, new mill, parking plaza are in progress along with residential & industrial civil infrastructure development
- Raise borers were installed for long ventilation raises to augment ventilation capacity

### AWARDS & RECOGNITIONS

Zawar mines received 3<sup>rd</sup> International Conference of Society of Power & Energy Professionals - 'Energy Efficient Plant for Business Sustainability' award. It also received 8<sup>th</sup> Rajasthan Energy Conservation Award 2017.

## KAYAD MINE (KM)

KM is the newest mine of the Company starting its operations in 2013 and has zinc-lead reserve grade of 6.4%.

During the year, KM received environment clearance to increase ore production from 1.0 to 1.2 million MT per annum and was ramped up accordingly.

### AWARDS & RECOGNITIONS

Kayad mine has received Indian Chamber of Commerce's Environment Excellence Award 2017.

### TAILING DAM BREAK ANALYSIS STUDY

Tailings are generated from beneficiation plants across mining sites and pumped to tailing dams for storage. The safety of tailing dams and mitigation of associated risks are a major environmental responsibility of the Company. During the year, tailing dam break analysis study and stability study was conducted by global experts for all operational tailing dams. The study has established a risk evaluation system based on the failure probability analysis & consequence assessment and enables proactive risk management steps.



Rapid mine development with safety and quality at Rampura Agucha underground mine

## SMELTERS

Hindustan Zinc is the fourth largest producer of zinc and lead metal globally with a smelting capacity of 1.04 million MT per annum. We are a fully integrated producer with mining and smelting which results in optimisation of cost, while proximity of mines and smelters facilitates logistical convenience.

### SMELTING - OVERVIEW

SMELTING PROCESS & TECHNOLOGY					
METAL	PROCESS	TECHNOLOGY	SMELTER	CAPACITY (MT PER ANNUM)	
Zinc	Hydrometallurgy	Outokumpu roast-leach-electro winning	Chanderiya	430,000	
			Dariba	220,000	
			Debari	88,000	
	Pyrometallurgy	Imperial smelting	Chanderiya	105,000	
			<b>Total</b>	<b>843,000</b>	
Lead	Pyrometallurgy	Imperial smelting	Chanderiya	35,000	
			Ausmelt Top Submerged Lance	Chanderiya	50,000
			SKS, bottom blowing	Dariba	116,000
			<b>Total</b>	<b>201,000</b>	
Zinc & Lead	<b>Grand Total</b>			<b>1,044,000</b>	

Chanderiya Lead-Zinc Smelter (CLZS) is one of the largest zinc-lead smelting complexes in the world. Its current metal production capacity is 620,000 MT per annum including 535,000 MT per annum of zinc and 85,000 MT per annum of lead. The facility for making Hindustan Zinc Die-cast Alloy was revamped during the year and the new product has widespread acceptance in the market. CLZS is certified for Integrated Management System (IMS) comprising of the Quality Management System (ISO 9001:2008), Environmental Management System (ISO 14001:2004) and Occupational Health and Safety Management System (OHSAS 18001:2007).

The zinc smelter at Dariba Smelting Complex (DSC) was commissioned in March 2010 and has a capacity of 220,000 MT per annum. In July 2011, a lead smelter was commissioned which has been debottlenecked to 116,000 MT per annum. The Complex is ISO 9001 certified and is pursuing IMS certification Zinc Smelter at Debari (ZSD) was commissioned in the year 1968 with an initial production capacity

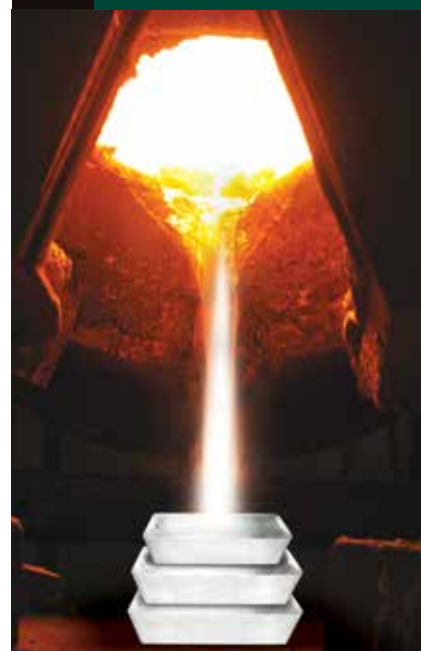
of 18,000 MT per annum. Over the years, ZSD has expanded manifolds to the current capacity of 88,000 MT per annum. ZSD also supplies surplus zinc oxide, an intermediate product, to the Company's other zinc smelters.

The Company has a 600 MT per annum silver refinery at Pantnagar in the state of Uttarakhand where the entire silver is manufactured using residues from our smelters in Dariba and Chanderiya.

The Company also has facilities at Pantnagar for processing and refining of zinc and lead cathodes manufactured at its Rajasthan smelters as well as for nationwide distribution of finished goods, making it a centralised finished good centre for its customers. These facilities do not add to the overall smelting capacity. During the year, production capacity of CGG zinc was doubled to 70,000 MT and new value added products in silver were launched including 1Kg silver bar and silver nitrate.

Zinc refinery at Haridwar in Uttarakhand and zinc smelter at Vishakhapatnam in Andhra Pradesh are currently non-operational.

We have invested in world class smelters where we try to ensure minimal environmental hazard and impact.







## Hindustan Zinc Silver Refinery Recognized by London Bullion Market Association (LBMA)

The silver refinery of Hindustan Zinc, located at Parangar in the state of Chhattisgarh, has been added to London Bullion Market Association's (LBMA) "London Good Delivery" list for Silver effective from 16 April 2018. The LBMA is the international silver association that represents a wholesale sector of the market for gold and silver bullion. Its silver refiners whose gold and silver bullion has been tested, has originally tested, and each time tested for acceptability the London Bullion market. The list now includes 19 gold and 12 silver refiners.

LBMA has extensive testing requirements under which silver refiners are assessed and assigned independent refiners, and testing capabilities are tested. Also includes assessment of refiners' ownership, history, technical capability and financial standing.

Hindustan Zinc is the only Indian private sector company to feature in London Bullion Market Association's (LBMA) global "London Good Delivery" list. As per World Silver Survey 2018 by The Silver Institute, Hindustan Zinc, that produces over 95% of primary silver in India, is the 10th largest Silver producer in the world.

Hindustan Zinc for Silver has become effective from 16th April 2018. This gives Hindustan Zinc recognition of international standards quality of silver bars that match global trade acceptability.

Hindustan Zinc Silver Refinery is India's first refinery and the only private sector refinery to be listed on LBMA. The silver refined originates from India via INMTC Ports, Marseilles and Hindustan Petroleum Pvt. Ltd. Head Mumbai, both of government.

The CEO of Hindustan Zinc, Sanjiv Duggal said "We are very

pleased to be listed on LBMA for our silver refinery located at Parangar in the state of Chhattisgarh. Since we export India to global silver market, with production of 95% primary silver in India, I would like to elaborate Hindustan Zinc silver as #Silver of India."

As per the latest World Silver Survey report 2018, Hindustan Zinc ranked 10th among the top silver producing companies globally in the year 2017. The report also documents 2017 as the third consecutive year of growth posted by India due to

volume processed by Hindustan Zinc. The company jumped 8 positions from its 2016 ranking of 18.

In the financial year 2017-18, Hindustan Zinc has produced a record 556 tonnes of silver. The Company sells Silver in the form of 35 Kilograms bars. The Company is aiming to produce 1000 tonnes of Silver in the next 2-3 years at which the Company would be ranked amongst the top 5 global silver producers.

In the domestic market, silver will remain bullish due to the digital silver, silver prices generation and opening

## PERFORMANCE IN FY 2018

	CHANDERIYA LEAD-ZINC SMELTER	ZINC SMELTER DEBARI	DARIBA SMELTING COMPLEX	TOTAL
Refined Zinc (MT)	497,049	76,979	217,433	<b>791,461</b>
FY 2017 (MT)	435,664	46,442	189,882	<b>671,988</b>
Refined Lead (MT)	72,450		95,797	<b>168,246</b>
FY 2017 (MT)	46,474		92,535	<b>139,009</b>
Sulphuric Acid (MT)	615,409	275,741	512,945	<b>1,404,095</b>
FY 2017 (MT)	545,563	191,635	446,997	<b>1,184,195</b>

In FY 2018, the Company produced 791,460 MT of zinc and 168,246 MT of lead as compared to 671,990 MT and 144,294 MT respectively in FY 2017. The increase was driven by uniform availability of mined metal during the year and debottlenecking in smelters' capacity.

Concurrent with mine expansion, smelters are undergoing debottlenecking to increase metal production capacity. The first phase of expansion was completed during the year in which current carrying capacity of cell house of hydro smelters at CLZS was upgraded from 192 kA to 200 kA to enhance zinc output. Further debottlenecking is underway to increase capacity to 1,123,000 MT per annum during the current year.



## KEY SAFETY AND SUSTAINABILITY INITIATIVES

The Company's first zinc Fumer project with a capacity of 160,000 MT per annum is presently under construction at CLZS and is expected to commission in FY 2019. The Fumer will lead to annual recovery of valuable metals including 32MT of silver and 6,200 MT of zinc and lead from zinc residue, which otherwise would be wasted in tailings dam. The project is a step forward in achieving the goal of zero solid waste and favourably impacts the environment footprint by reducing waste and land requirement.

To improve safety at acid plants and in a first of its kind initiative in the country, the Company has developed a one-way traffic system at acid loading area, which will not only avoid reversing of acid trucks but also use a remote controlled robotic loading arm to fill acid in carriers.

In continuation with its green initiatives, captive solar plant with the capacity of 12 MW was commissioned at ZSD in March 2017, which will reduce carbon footprint by approximately 14,000 MT per annum. The Company's total solar power capacity now stands at 16MW and a further 24 MW is under construction at Rampura Agucha on waste dumps.



Fumer construction site - a step towards environment friendly technology

## KEY OPERATIONAL INITIATIVES

### REDUCTION IN CONSUMABLE SPEND BASE

During the year, optimal quality and suppliers of chemicals like strontium carbonate, sodium sulphate, epoxy based cathode top coating were identified to increase cathode life.

### DEVELOPMENT OF PERFORATED ANODES IN CELL HOUSE OF HYDRO SMELTERS

The modification in anode design by developing perforated anodes for use in cell house of hydro smelters resulted in reduction of anode weight by 18 kg each resulting in savings of 800 MT of High Silver-Lead (HSL). This has led to one-time monetary savings of ₹ 21 Crore and recurring benefit of about ₹ 1 Crore per annum from lower HSL consumption and other intangible benefits.

### ZINC DUST REDUCTION IN PURIFICATION OPERATION

Norms of zinc dust usage were reduced from 38 Kg/MT to 33 Kg/MT by improving tip speed of the agitator in purification process leading to reduction in operating cost as well as operational efficiency.

## AWARDS & RECOGNITIONS

SEEM National Energy Management Award 2016 to Dariba Smelting Complex and Chanderiya Smelting Complex

Water Digest Water Award 2016-17 to Dariba Smelting Complex

2nd CII National 5S Excellence Award 2017 to Pantnagar Metal Plant

Quality Circle Forum of India's Par Excellence Award in 5S & Kaizen to Pantnagar Metal Plant

## AUTOMATION OF HOT METAL TRANSFER

Automation of transfer of hot molten metal from noble furnace to cupel furnace at silver refinery at Pantnagar has eliminated the potential hazard of exposure to hot molten metal.





## WASTE TO WEALTH: ANCILLARY PLANT AT DARIBA SMELTING COMPLEX

A significant 'Waste to Wealth' initiative is the ancillary product plant at DSC to treat residues produced during smelting process leading to in-house production of few key consumables and by-products, in collaboration with the Company's central R&D team.

During the year, additional projects were successfully executed including production of copper sulphate and zinc sulphate from PF cake as well as production of potassium antimony tartarate from antimony dust. With this, the gains from ancillary unit during the year was ₹ 30 Crore.

The key initiatives planned for FY 2019 include production of sodium sulphate from RO reject, treatment of slag from silver refinery to produce bismuth oxychloride and production of copper sulphate from copper matte.





## BUSINESS EXCELLENCE

Business Excellence is a strategic function that integrates excellence into various aspects of operations through latest technology, benchmarking, innovation and asset optimisation. Our vision is to take business excellence to the next orbit using best-in-class technologies and big data analytics.

Key projects include 'Digital Mine' at SKM, capacity enhancement of smelters, automatic loading of acid in tankers, Transport Management System and centralised maintenance workshops. These have elevated safety, environment and financial performance of the Company.

### PROCESS EXCELLENCE

**Technological interventions for process and performance improvement.**

During the year, Business Excellence carried out engineering modifications and incorporated best-in-class technologies in leaching, purification and cell house to debottleneck zinc smelters and developed alternate process to treat oxides other than pyro route. Additionally, the team conducted audits for monitoring of process parameters to achieve consistent performance.

### ASSET OPTIMISATION (AO)

**Continual improvement initiative to achieve operational excellence.**

AO has played a pivotal role to improve performance of mining equipment, mill recovery, specific energy consumption and product quality, achieving 15% improvement with targeted annual savings of over ₹ 200 Crore.

### RELIABILITY CENTERED MAINTENANCE

**Maintenance Design Process to improve system reliability and avoid redundant maintenance**

This project was launched in October 2017 in roasters and beneficiation plants. Key focus is on culture change towards proactive maintenance, "zero" unplanned downtime, reducing risk and increasing Mean-Time-Between Failures. This initiative will improve Overall Equipment Effectiveness and throughput of plants by 5% to 7%.



Technology upgradation: Man-less weigh bridge



## CAPTIVE POWER

Our captive power plants (CPP) provide low-cost, reliable power to our mines and smelters to help achieve lowest cost producer vision of the Company

CPPs achieved nil LTIFR across all power operations in FY 2018. The Company has a Safety First policy and several sustainability initiatives were undertaken throughout year, as outlined below.

- Dariba CPP used 100% Sewage Treatment Plant water reducing fresh water consumption
- Zero spillage across all belt conveyors
- Implementation of arc flash study and boundary marking in all Motor Control Centre
- Improving safety of LT feeders by replacing switch fuse unit with motor protection circuit breaker or moulded case circuit breaker
- 360 degree guarding of all conveyors
- Automation of chemical dosing to avoid manual handling

### CONVEYOR SAFETY DRIVE

To strengthen the conveyor safety and 360 degree guarding, machine guarding & conveyor safety standard was released during the year and trainings were conducted. Audits were conducted on conveyors and actions were taken on identified gaps for safe & spill free conveyors and compliance with safety standards.



Inside view of turbine area at captive thermal power plant

## COAL BASED CPPS

The Company has coal based thermal CPPs with a total power generation capacity of 474 MW. CPPs generated a record 4,155 million units of power in FY 2018 as compared to 3,345 million units in FY 2017.

To optimise cost in a high commodity price environment, the Company diversified its fuel basket using lignite & off-spec coal and also secured 0.94 million MT of Indian coal through linkage auctions for five years, which is about 40% of total coal requirement.

### PERFORMANCE IN FY 2018

CPP	CAPACITY	APC	PLF
Chanderiya	234 MW	8.11%	95.91%
Dariba	160 MW	8.09%	98.42%
Zawar	80 MW	8.13%	97.89%

During the year, several benchmarks were achieved in safety, reliability and efficiency:

- Zero blackout across all operations and all units sustained 100% successful islanding
- Lowest ever station Auxiliary Power Consumption of 8.11% with all units achieving best ever
- Lower specific coal consumption 442 gm/Kwh as compared to 446 gm/Kwh in FY 2017
- Highest ever station PLF of 97.09% across all CPPs
- Chanderiya CPP Unit #2 achieved benchmark of 741 running days without boiler tripping

### ENVIRONMENT FRIENDLY VAM CHILLER

VAM chillers are based on absorption refrigeration system, which is environment friendly as it produces chilled water using low-grade energy such as waste heat and uses water as refrigerant. The first VAM chiller was installed at Dariba CPP and it uses waste steam from Dariba lead plant. It has led to energy savings of 2,000 kwh per day, eliminated need of CFC or HCFC refrigerants and is maintenance free.

## RENEWABLE POWER

We continuously focus on reducing greenhouse gas emissions and carbon footprint. In line with this vision, the Company has made significant investments in green energy aggregating to 325 MW.

Of this, wind power accounts for 273.5 MW spanning five states and is under long-term PPA with discoms. 16 MW solar power was installed last year in two of our facilities for captive consumption and the same is planned to increase significantly in the coming years. In addition, the Company produces 35.4 MW through its waste heat recovery boilers.

During the year, the Company produced wind power of 414 million units and solar power of 30 million units. It achieved reduction of 614,793 MT of CO<sub>2</sub> through green energy and various cost reduction initiatives.

### AWARDS & RECOGNITIONS

- Chanderiya CPP received first prize in Fly Ash Utilization Awards 2017 by Mission Energy Foundation for the second consecutive year
- National 5S Excellence gold certificate Award 2017 by CII
- Solar Innovation & Excellence Award at the 2nd annual Conference EXPO Awards
- Gold award in rising category on technical performance for solar projects
- Dariba CPP received Energy efficient FAME Excellence award in GOLD category



## EXPLORATION

Our exploration objective is to maintain mine life of over 25 years.

To achieve this objective, the Company has an aggressive exploration program in its brownfield tenements focusing on delineating and upgrading R&R in and around the existing deposits.

The exploration team consists of 25 geologists, geophysicists and analysts responsible for designing and executing exploration programs complemented by outsourced service providers. Technology adoption and innovations play key role in enhancing exploration success. In FY 2018, the Company implemented the latest 3D modelling software to enable better visualisation of its ore bodies and identify drilling gaps with potential for additional ore. It also conducted trials of 'big data' machine learning to help identify new target areas at Rajpura Dariba.

Exploration success in FY 2018 added to Hindustan Zinc's R&R providing opportunities for extended mine life and production growth. All of the Company's deposits remain 'open' and exploration identified a number of new targets on mining leases having potential to increase R&R over the next 12 months. Across all the sites, the Company doubled its surface drilling to 140km and completed 6.5km of underground drilling during the year.

In line with previous years, the Mineral Resource is reported on an exclusive basis to the Ore Reserve and all

statements have been independently audited by SRK (UK). In comparison with the previous years' Mineral Resource and Ore Reserve statements, there is an overall net depletion of 3.4 million MT of Ore Reserve and a net 10.3 million MT increase of exclusive Mineral Resource. Total contained metal in Ore Reserve is 8.8 million MT of zinc, 2.3 million MT of lead and 304 million ounces of silver and the exclusive Mineral Resource contains 17.9 million MT of zinc, 6.6 million MT of lead and 701 million ounces of silver. At current mining rates, the R&R underpins a mining life of more than 25 years.

### ORE RESERVE AND MINERAL RESOURCE (R&R) AS ON MARCH 31, 2018

	ORE RESERVE				MINERAL RESOURCE							
	PROVED AND PROBABLE				MEASURED AND INDICATED				INFERRED			
	MILLION MT	GRADE %		G/T	MILLION MT	GRADE %		G/T	MILLION MT	GRADE %		G/T
	ZINC	LEAD	SILVER		ZINC	LEAD	SILVER		ZINC	LEAD	SILVER	
Rampura Agucha	46	13.8	1.9	64	16.2	15	1.9	58	34.3	10	2.6	76
Rajpura Dariba	9.3	4.9	1.7	49	22.9	6.9	2.1	69	27.8	6.4	1.8	88
Sindesar Khurd	34.6	4	3	164	15.8	4.8	3	169	75.6	3.6	1.8	82
Bamnia Kalan	0	0	0	0	5.4	4.5	1.6	67	14.7	3.7	1.8	56
Zawar	10.4	3	2.1	31	22.3	4.8	1.8	41	67.8	4.6	2.6	47
Kayad	5.5	5.6	0.8	19	1.5	14.3	2	43	1.3	4.6	1.9	16
<b>Total</b>	<b>105.7</b>	<b>8.3</b>	<b>2.2</b>	<b>89</b>	<b>84.1</b>	<b>7.5</b>	<b>2.1</b>	<b>78</b>	<b>221.5</b>	<b>5.3</b>	<b>2.2</b>	<b>69</b>

Mineral resources reported exclusive of ore reserves, reported at variable cut-off grade per mineral asset.



High grade mineralisation (zinc & lead) intersected in exploration drill hole



Drill core inspection at Zawar exploration site

# HUMAN RESOURCE

## ENRICHING OUR TALENT

Our vision is to be the most admired employer brand where every employee feels engaged in a high-performance environment and is our best brand ambassador.

Hindustan Zinc has a committed workforce of 4,397 employees and over 17,000 associates through business partners.

### KEY HR INTERVENTIONS DURING THE YEAR WERE:



#### TECHNOLOGY IN HR

The Company has built an integrated landscape of digital HR for data driven decisions and transparency in HR processes. During the year, Success Factors was implemented in SAP ERP system.



#### ENGAGEMENT & DEVELOPMENT

The Company continuously strives to develop its talent through various interventions such as coaching and mentoring, global benchmarking visits, Leaders' Connect, live business projects, etc. Also, through its flagship 'V Connect' program, 126 potential talents have been anchored by senior leaders to help them grow and realise their potential.



#### BUILDING ROBUST TALENT PIPELINE

Strong talent pipeline is one of the key factors for success. Through dedicated process of talent review, the Company has identified and developed a pool of internal successors for key & critical positions. Also, through its flagship program 'Internal Growth Workshops', over 50 high potential young talent was identified and given enhanced leadership role in the organisation.



#### EFFECTIVE PERFORMANCE MANAGEMENT

A new outcome-based performance system has been introduced that promotes frequent performance dialogues in order to help employees get timely feedback about their performance.



#### FOCUS ON DIVERSITY

As an organisation, the Company has put concerted efforts to enhance gender diversity achieving an overall gender ratio of 12% women, with 27.1% in enabling functions.



#### STRATEGIC OUTSOURCING AND PARTNERSHIP MODEL

The performance of the Company depends on performance of its business partners. Therefore, it makes continuous efforts towards driving and aligning the performance of contractors and help them achieve business results through inclusion and development of their people.

### SAFETY TOWN HALL MEETING

CEO and IBU Presidents interacted with employees and their families in a town hall meeting at Chanderiya and emphasised safe behaviour both within and outside work premises and stressed on zero tolerance against unsafe behaviour in workplace.

### CLEAN & GREEN HZL

"Clean & Green HZL" housekeeping drive set the tone of a clean, well ordered and hygienic work place. Employees participated in various activities and competitions with increased awareness on importance of housekeeping towards excellence and sustenance of operations. The drive includes HSE assessments and 5S audits with a focus on waste segregation and scrap disposal from sites.

### MANAGEMENT OF CHANGE

Personnel policy rolled out to strengthen safety standards

The objective of this policy is to lay down a framework to ensure HSE risks and hazards are controlled systematically during change of personnel in critical roles.





Global mining contractors at work in Sindesar Khurd



## SUSTAINABILITY

# Caring for environment and people

**69% REDUCTION**

IN INJURY FREQUENCY RATE OVER LAST 5 YEARS

**35%**

WATER RECYCLING RATE

**42%**

WASTE RECYCLED

**₹ 59 CRORE**

ENVIRONMENT EXPENDITURE

**324 MW**

RENEWABLE POWER PORTFOLIO

**638 MN UNITS**

GREEN POWER GENERATION

Our strategic priority is to protect and preserve our social license to operate which emanates from how we look after our people, communities and the environment.

Hindustan Zinc is a responsible metals & mining company with sustainable development as a core element of its business strategy. The Company is committed to ensure zero harm to people, reducing environmental footprint, enhancing livelihood, benefitting the communities and communicating its sustainability efforts and performance to stakeholders with transparency, authenticity and integrity.

## SAFETY

Achieving “Zero Harm” to people with the belief that all workplace injuries are preventable

- **0.27** – 69% reduction in Lost time injury frequency rate over 5 years
- **0.6** – Safety training million man hours accomplished



Rescue Gallery

## HEALTH

Improving Health and Well-being at workplace

- **Zero** – Occupational illness cases
- **100%** – Periodic medical examinations of all relevant employees



X-ray facility at occupational health center

## ENVIRONMENT

Sustainable use of natural resources in our operations and minimising environmental footprint

- **Zero** – High Potential Environment Incidents
- **₹ 59 Crore** – Environment expenditure
- **100%** – Assurance of all sites through Vedanta Sustainability Assurance Programme



Amitabh Gupta, CFO planting tree on World Environment Day

We publish an annual sustainability report, in accordance with requirements of Global Reporting Initiative. This report covers in considerable detail our approach, our performance and our efforts towards sustainability practices. Our sustainability reports are available on our website.



[www.linktocomehere.com](http://www.linktocomehere.com)

“Vedanta Sustainability Assurance Programme (VSAP)”, an in-house comprehensive sustainability risk management tool regularly reviews the Company’s progress through a 3-tier mechanism. VSAP helps to assess the compliance of all units and provides identification of gaps and necessary corrective and preventive actions to address them.

## SAFETY: CORE TO OUR SUSTAINABLE STRATEGY

The health and safety of our people is our top priority. We take a proactive and preventive approach towards health and safety with the aim to establish a positive safety culture which empowers employees and contractors to stop work if they consider a workplace or situation unsafe.

During FY 2018, the Company showed improvement in safety performance. While there was no fatality in operations, there were two fatalities at Rampura Agucha underground project and Chanderiya Fumer project site. LTIFR reduced to 0.27 from 0.30 in FY 2017 and has declined by 69% over the last 5 years. The trend shows our commitment towards zero harm and implementation of safety standards and HSE policy. In recognition of its safety performance and efforts to strengthen safety culture, Hindustan Zinc was awarded "Safety innovation Award 2017" by the Institution of Engineers (India).

### 'Aarohan'

**Aarohan is a company-wide initiative which focuses on eliminating fatalities and serious injuries through positive safety behaviour and a better understanding of consequences of unsafe acts.**

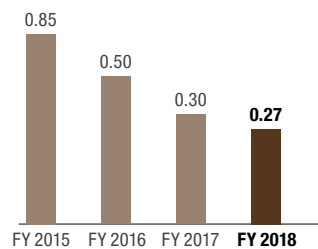
During the year, 'VSAP Chaupal', an interactive sessions were initiated with contract workforce to raise awareness on Vedanta Sustainability framework.



Simulator Training

### LTIFR TREND

(million man-hours)



Classroom Safety training

### 'LINE OF FIRE' AWARENESS DRIVE

An internal analysis showed that 50% of injury incidents are due to people entering the line of fire unknowingly. A drive was initiated for increasing awareness on line of fire where senior leaders have taken a lead to educate employees during safety interactions, Tool Box talks and site tours.

### BEING SAFE

A step towards attaining "No Unsafe Act"

'Being Safe' is a scientifically designed interactive project with the objective of reducing stress and enhancing realisation of safety for their own good among workers. It involves a live informal interaction with employees, screening of specially crafted safety films and silent meditation sessions. The 90-minute interactive session also involves narration of case studies and incidents. Conceptualised as part of communication project, 'Being Safe' workshops have so far touched the lives of about 2,500 employees and contract workers, school children and families.



## ESTABLISHING HEALTH AND WELL-BEING AT WORK PLACE

All occupational diseases can be prevented by providing a workplace that is free from occupational health risk and hygiene hazard.

Hindustan Zinc has occupational health centres at all mines and smelters. All employees and contract workers access health services including pre-employment medical check-up as well as periodic medical examination by on-site medical professionals to monitor occupational exposure limits. During the year, over 26,480 employees and contract employees underwent periodic and initial medical examinations.

In pursuit of a healthy work environment, the Company emphasizes on controlling the source of pollution and on monitoring exposure to hazardous substances through technologically advanced processes. During the year, trainings on Industrial Hygiene for occupational health experts and other functions were conducted.



Audiometry test at occupational health center



Monitoring and sampling equipment

## SLIM CAMPAIGN

Hindustan Zinc & Naso filters carried out a week long SLIM (Save Lungs India Movement) campaign for its employees at Debari, Dariba & Chanderiya sites. SLIM used Naso filters, a non-inserted, hypo-allergenic and self-adhering nano technology based nasal filter, which prevents harmful effect of bacteria, viral infections and tiny suspended dust particles. It is a convenient and effective disposable nasal filter which helps prevent respiratory disease, heart and lung related problems.



SLIM campaign event

## ACHIEVING SUSTAINABILITY THROUGH PERFORMANCE IN OUR OPERATIONS

We are committed towards responsible stewardship and to reduce our environmental footprint by judicious use of natural resources like water & energy and alternate use of waste.

We abide by three guiding principles:

- Responsibility towards resources
- Sensitivity towards environment footprint
- Zero harm to environment

### WATER FOOTPRINT

**Our priority is reduction in fresh water footprint through efficient water use through water efficient technologies and higher use of recycled water by treating waste water in effluent treatment plant and thus maintaining zero discharge. We report to the Carbon Disclosure Project (CDP) & Water Disclosure Programme.**

Hindustan Zinc follows a risk-based approach for the implementation of water management plans. During the year, water risk assessment was conducted at all operating sites to create comprehensive water balances to improve measuring and reporting on water. The Company has undertaken several water conservation and harvesting initiatives for reducing fresh water intake and maintaining zero discharge. With the success of 20 million litres per day (MLD) Sewage Treatment Plant (STP), the Company has again partnered with Udaipur Smart City Limited for a phase-2 comprising of 25 MLD STP which is under construction and phase-3 is in the pipeline. These STPs will further replace fresh water intake at our facility with treated sewage water.

The Company continued to improve its performance in conservation and recycling. During the year, water recycling rate was 35% (FY 2017: 32%), 42% of waste generated was recycled (FY 2017: 39%). However, due to continuous expansion of our operations and increased use of treated water, specific water consumption increased during the year by 4% to 15.08 specific water per ton of metal.

### WASTE MANAGEMENT

**Our operations have rigorous waste management systems while preventing environmental contamination.**

The major waste generated by operations are tailings, jarosite, slag and rock. All wastes are stored at earmarked places and hazardous waste is disposed timely through approved registered recyclers as per the Hazardous Waste Rule. The Company has laid down comprehensive guidelines on waste management, which cover hazardous as well as non-hazardous waste and monitoring of waste management is carried out on a regular basis.

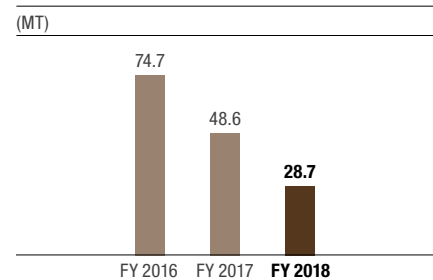
During the year, a Waste to Wealth Committee was constituted to spearhead waste reduction and value extraction initiatives.

### BIODIVERSITY MANAGEMENT

**Our biodiversity management plan collectively supports the management of biodiversity at our sites and is developed to avoid, minimise or compensate the loss of biodiversity as a result of new projects or major expansions.**

During assessments for new projects, detailed environmental impact assessments including biodiversity are undertaken. During project conceptualisation, detailed Environment and Social Impact Assessments are conducted to support approval of the project by regulators and stakeholders. Critical biodiversity areas are identified and biodiversity action plan is developed to mitigate the risk associated with new project activities on region's biodiversity

### WASTE GENERATION



### CASTING PAVER BLOCKS FROM WASTE

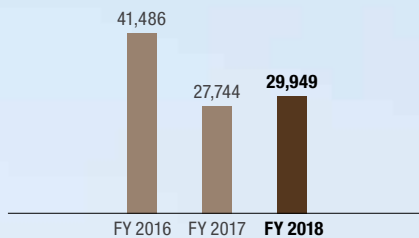
The Company's Central R&D Laboratory has established a suitable mix of waste materials generated from smelters and power plants to cast paver blocks. The substitution of conventional raw materials i.e. ordinary Portland cement, aggregates and stone dust with waste has been validated for different grades of paver blocks from M-25 to M-40 grade. About 70% to 80% waste substitution was observed for M-25 to M-30 grade paver blocks, which are generally used for pedestrian paths. More than 80,000 pieces of M-25 grade paver blocks were consumed internally in FY 2018.

## MAINTAINING AIR QUALITY

The Company is committed to measuring, controlling and reducing air emissions and implementing systems and procedures to address the concerns of local communities as well as to comply with environmental license conditions. As a best practice management, an online effluent and emission monitoring system connects directly to the servers of Pollution Control Board.

### AIR EMISSION FROM STACKS

(MT)



## ENERGY AND CLIMATE CHANGE MANAGEMENT

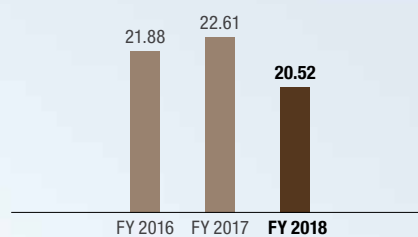
**We are committed to optimise our energy consumption and investing in newer technologies as well as to diversify our energy portfolio.**

Hindustan Zinc participates in CDP Carbon disclosure programme, whereby it calculates and reports greenhouse gas (GHG) inventory i.e. Scope 1 (process emissions and other direct emissions), Scope 2 (purchased electricity) and Scope-3 (Downstream and upstream movement) as defined under the World Business Council for Sustainable Development and World Resource Institute GHG protocols. The Company is also committed to Science Based Target initiative (a global team comprised of UNGC, CDP, WWF and WRI) to set GHG emissions reduction targets in accordance with climate science, i.e. in line with the level of decarbonisation required to keep global temperature increase below 2°C compared to preindustrial temperatures.

Hindustan Zinc has committed to reduce scope 1 and scope 2 GHG emissions by 9.9% till 2026 from a base year of 2016.

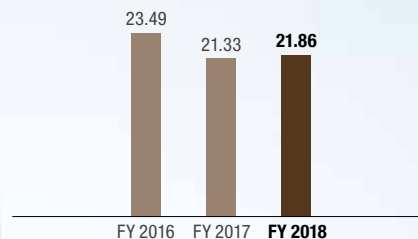
### ENERGY CONSUMPTION IN GJ/MT OF METAL

(5% reduction over five years)



### ENERGY CONSUMPTION IN GJ/MT OF MIC

(4% reduction over five years)



## GREEN ENERGY

**The Company has 274 MW wind farms in five states across India which are registered under Clean Development Mechanism (CDM) program by United Nations Framework Convention on Climate Change (UNFCCC).**

For its captive use, the Company has two solar power projects of 16 MW which were commissioned last year on waste land at Dariba mine and Debari Zinc smelter. The green power generated from it have reduced carbon footprint by 30,278 MT of CO<sub>2</sub> emission per annum. In addition, there is 34.4 MW of power capacity through waste heat recovery from roasters and steam turbo generator out of which 9.4 MW Waste Heat Recovery Boiler project is registered under CDM along with 21 TPH Low Calorific Value boilers for steam generation project. The Company is planning to further enhance its solar energy footprint in the coming year.

During FY 2018, 638 million units of green power was generated as compared to 609 million units in FY 2017, primarily driven by commissioning of solar power plants.

### PROJECTS IN PIPELINE

- 24 MW solar power project at waste dump yard of Rampura Agucha Mine
- 1 MW floating solar power project at Gosunda captive dam near Chanderiya for utilisation of available water surfaces
- 5 MW roof top solar power project
- Additional 30 MW solar power plant and 50 MW wind power plant

The 10 UNFCCC registered projects reduce the Company's carbon footprint by 583,685 MT of CO<sub>2</sub> emission per annum while unregistered projects provide reduction of 147,270 tonnes CO<sub>2</sub> emissions per annum. The new solar projects in pipeline will further reduce carbon footprint by 58,000 MT of CO<sub>2</sub> emission per annum.



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## CORPORATE SOCIAL RESPONSIBILITY

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# Empowering and enriching lives

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ABOUT **500,000**

LIVES TOUCHED

₹ **92 CRORE**

CSR SPENDING

ABOUT **70,000**

CHILDREN TOUCHED THROUGH EDUCATION INITIATIVES

**16,621 WOMEN**

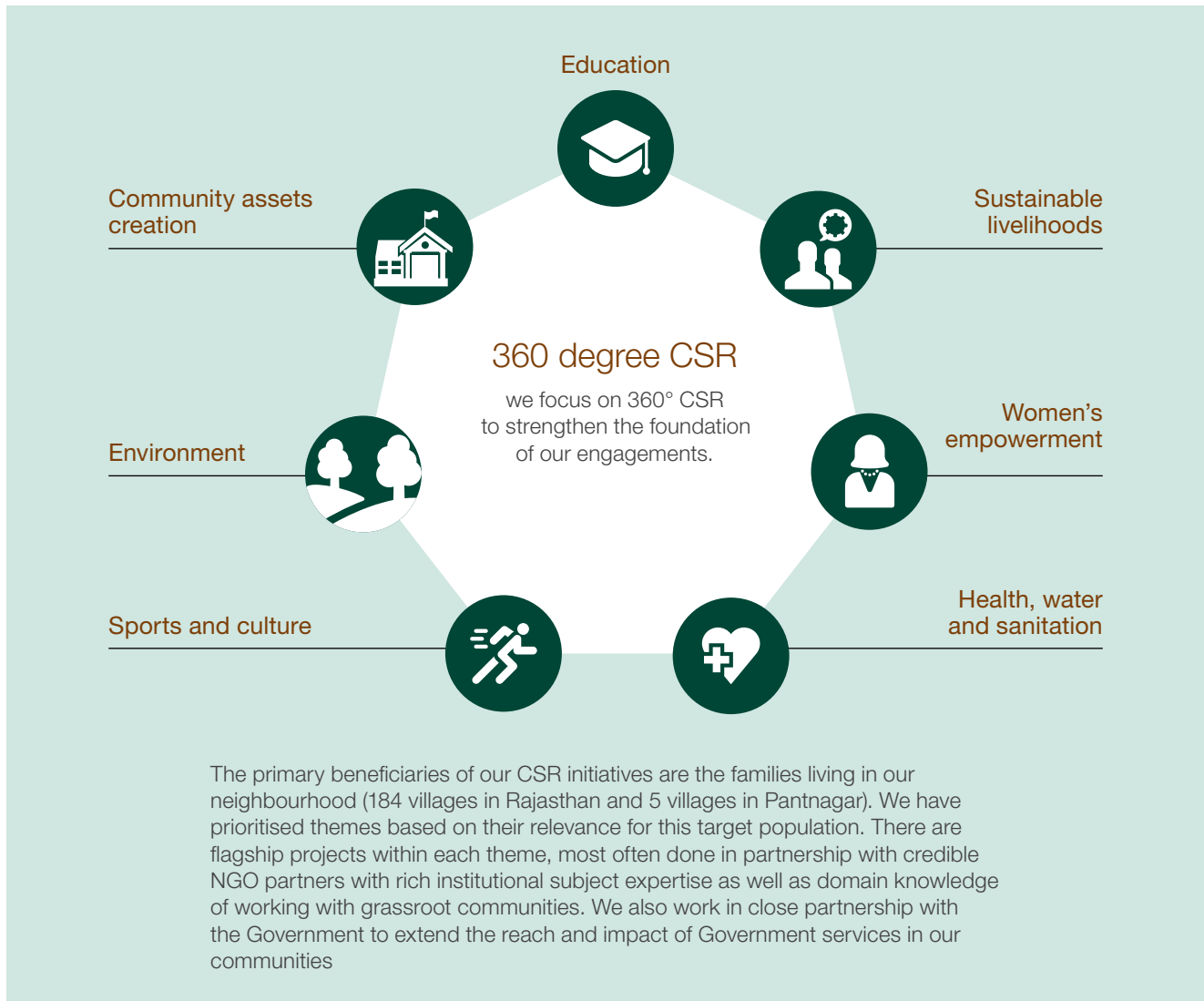
ASSOCIATED THROUGH 1,299 SHGS

ABOUT **7,000**

FAMILIES COVERED THROUGH AGRICULTURE  
AND ANIMAL HUSBANDRY INITIATIVES

//////////

Our guiding philosophy is driven by the desire to contribute to the community well being and empowerment around our operations, and to contribute to nation building at large. Our CSR policies are framed and implemented in a systematic manner to ensure efficient deployment of resources to deliver sustainable impact. We invested ₹ 92.18 Crore in CSR in FY 2018, touching the lives of half a million people and positively impacting more than 100,000 households.



## GOVERNANCE

**All CSR projects are monitored through multi-tiered governance protocols to ensure quality, impact and transparency.**

The Company has Project Steering Committees and Project Advisory Committees for every major CSR project. The Project Steering Committees comprise of NGO partners and CSR team members and holds monthly or bi-monthly reviews to ensure implementation as per plans. The Project Advisory Committee comprises of Government officials, NGO partners, CSR Project Leaders from Hindustan Zinc and subject matter experts and meets periodically to review the progress and design the way forward.

The projects are subject to stringent audits and are monitored by the Implementation Monitoring Committee on a monthly basis, by the Executive Committee on a quarterly basis and by the CSR Board Sub-Committee on a half yearly basis.

## EDUCATION

▢ Khushi, Nandghar, Shiksha Sambal, Unchi Udaan, Scholarships & Sponsorship for higher education, Jeevan Tarang...Zinc Ke Sang

🌐 SDGs 1, 2, 3, 4, 5, 10, 17

📊 36%

👥 Ministry of Women & Child Development - Government of India, Department of Women & Child Development - Government of Rajasthan, Care India, Seva Mandir, Jatan Sansthan, Gramin Evam Samajik Vikas Sanstha, Vidya Bhawan, Resonance, Sumedha, Noida Deaf Society, Vedanta PG Girls College

### KHUSHI ANGANWADI PROGRAM

This program focuses on supporting the government in improving the functioning of the Integrated Child Development Services (ICDS) program in five districts of our operational area. The total coverage is 3,089 Anganwadi centers (AWCs) directly reaching 64,000 children in age group 3-6 years. The program is implemented in partnership with strong civil society organisations in each of the five districts.

This program is probably the largest such Public-Private-People initiative in the ICDS space. It aims to improve children's attendance, retention, learning levels, health status and community engagement.

During the year:

- Attendance at the centres went up from 43% in base year (2016) to 59%
  - Learning assessment was undertaken for about 9,666 children. The key findings were – 60% of children were found satisfactory in physical development, 45% were satisfactory in social, 43% were good at language development, 34% were satisfactory in cognitive development and 42% were high on creativity
  - All 3,089 AWCs were assessed using a unique Anganwadi Grading Tool that has been developed by the project. The Grading Tool rates Anganwadis taking into account the status of infrastructure, functioning of the centre and record keeping. This was first such assessment and it rated 11% centres in A category (with score >70%), 45% as B (score between 55 and 70%), 33% as C (score between 40 and 55%), and about 10% were in D rating
- (with scores below 40%) These results will help us to benchmark for future improvements
- Comprehensive health check-ups were done for more than 20,000 children
  - Over 25,000 community meetings were held and community contributions equivalent to ₹ 54.3 Lacs were mobilised
  - About 4,500 ICDS workers and NGO staff received training on pre-school education and nutrition, including the very popular recipe trials that demonstrated to mothers how they can use the Take Home Ration (THR) given by the AWCs to make seasonally suitable tasty food by adding other easily available local ingredients
  - 1,107 kitchen gardens were developed at the Anganwadis and household level, to supplement food made at the centres



Engrossed in colouring at the Anganwadi



Kitchen Gardens set up at Anganwadis



## NANDGHAR

**This program is our flagship CSR initiative with focus on converting existing run-down AWCs into new age Nandghars.**

Nandghars are equipped with state-of-the-art infrastructure including access to e-learning. The Nandghars double up as hubs for entrepreneurship training for women post Anganwadi hours, integrating the Khushi and Sakhi projects. During the year, 49 Nandghars were completed, taking total number to 53 and construction of another 225 Nandghars was initiated. A user friendly manual has also been developed on how to convert Anganwadis into Nandghars by laying out standard design, specification and processes.

## JEEVAN TARANG...ZINC KE SANG

**Started in FY 2017, this is an initiative to mainstream people with disabilities beginning with improving the facilities and learning in identified schools catering to the specially abled children.**

During the year, this program impacted more than 600 children. Some of the key activities were:

- Indian Sign Language training has been integrated for hearing impaired students and their teachers
- Technology based learning for visually impaired students by giving android smart phones to access books through Bookshare, world's largest online library for visually impaired

## SHIKSHA SAMBAL

**A signature project with emphasis on strengthening teaching of Science, English & Mathematics in 9th to 12th standard in about 59 government schools, reaching over 6,600 children.**

- The project works through 63 field instructors who hold regular classes in schools, conduct periodic tests and handhold students to prepare for board exams. Residential and non-residential learning camps and extra

classes are organised throughout the year and have proved very effective. The key highlights of 2017 Board Exams were as follows:

- The 'causal impact' of the Shiksha Sambal programme was 9.3% improvement in students who passed exam, starting with an average pass rate of about 70%
- Impact was highest in the remote tribal location of Zawar
- Overall improvements occurred for all three subjects with maximum improvement in English followed by Science and Maths
- 80% of Shiksha Sambal schools have started using library and labs more effectively

## UNCHI UDAAN

**The program builds on Shiksha Sambal to identify and prepare talented students from primarily rural Government schools for entry into good engineering institutions.**

The project has identified 56 students including 26 girls from a long list of 2,000 students and these select students have joined the residential program comprising of 27 students in a 2-year program and 29 students in a 3-year program. The students are living and studying at Vidya Bhawan school in Udaipur while our partner Resonance provides specialised coaching.

## SUPPORT FOR HIGHER EDUCATION

**Provide financial support to meritorious students, especially those from financially weak families to help continue their education.**

During the year, 87 students from Government engineering colleges received the Yashad-Summedha Scholarship, another 59 meritorious girls received full tuition fees and living expenses at the Vedanta Post Graduate Girls College at Ringus and 8 top ranked students of College of Technology & Agriculture Engineering, Udaipur received scholarships.



Pada Khadri Nandghar and the happy children



Visually challenged Sachin with the Chairman and CEO



Sign Language Class- Jeevan Tarang



Shiksha Sambal girls learning all about microscope

## SUSTAINABLE LIVELIHOODS

### 📁 SAMADHAN & HZL Mining Academy

🎯 SDGs 1, 2, 8, 10, 11, 12

📊 13%

👥 BAIF Institute of Sustainable Livelihood Development (BISLD), Skill Council of Mining Sector, Indian Institute of Skill Development

### SAMADHAN

Our target for agriculture & livestock development is to cover 60% of all families of our 67 core villages through agriculture interventions and 185 villages in our vicinity through animal husbandry interventions

The project aims to positively impact the lives of 30,000 farming families by the year 2021. Around 7,000 farming families have already benefited since project's initiation in September 2016. Special efforts have been made to include women as well as small and marginal farmers. Following are some of the key highlights of this year's work .

- **Rabi (winter crop):** 2,499 farmers were reached through interventions in wheat cultivation leading to an average production of 50.3 quintal per hectare, which is about 31% productivity increase on base line
- **Kharif (monsoon crop):** 994 farmers with irrigated land achieved 30%, 70% and 33% increase in production in Maize, Soya-bean and Millet respectively and 558 farmers with rain- fed land had a 21%, 55%, 47% and 45% increase in production of Maize, Soya-bean, Millet and Black gram respectively
- **Horticulture:** 390 families were covered out of which 60% of families cultivated high value vegetables leading to a cash flow increase of over ₹ 13,000 per family
- **Livestock development:** Total 5,942 artificial Inseminations were done during the year and 627 female calves were born

### HINDUSTAN ZINC MINING ACADEMY

Given the acute shortage of skilled manpower in the country for underground mines, this program focuses on training local youth in underground mining skills. The first program launched was Jumbo Drill Operators (JDO) training program, followed by a training program for Winding Engine Drivers (WED) and Banksman/Bellman.

During the year, about 350 qualified rural youth were trained in different underground mining skills. 108 candidates qualified as JDOs of which 105 have been placed at an average salary of ₹ 325,000 per annum. Another 47 young men qualified as WEDs/ Banksman/Bellman and 44 of them got placed with an average salary of about ₹ 292,000 per annum.



Full grown lemon orchard under Samadhan



Hindustan Zinc Mining Academy



Projects Sustainable Development Goal (SDG) Alignment % spend of CSR Budget Partners

## WOMEN'S EMPOWERMENT

📄	Sakhi
🎯	SDGs 1, 5, 8, 10, 11, 17
💰	4%
👥	Manjari Foundation & Saheli Samiti

### SAKHI

**Sakhi Self Help Group (SHG) program has a mission to form 2,000 SHGs by the year 2021, touching lives of nearly 24,000 women. By then, the project also aims to have set up 6 self-sustaining federations of these women**

There are presently 1,299 functional SHGs with membership of about 16,621 women with an accumulated savings of over ₹ 3 Crore. During the year, 10,580 women availed loans amounting to ₹ 7.9 Crore primarily for household consumption, agriculture, health & sanitation, animal husbandry and entrepreneurship

During the year, the Company initiated a drive on safety in our communities by distributing over 5,951 helmets through SHGs. SHG members have also taken the responsibility of ensuring usage of helmets in villages.

International Women's Day was celebrated at all operating locations including Pantnagar with participation of women from nearby communities and women employees. More than 12,400 women participated in the celebration which had the theme 'Press for Progress'.

At Pantnagar, a cost effective sanitary napkin making unit 'Sparsh' has been established in joint collaboration with ICDS which has also provided direct employment to 20 women.

## COMMUNITY ASSETS CREATION

📄	Community asset creation, Improving infrastructure in government schools
🎯	SDGs 9, 11
💰	9%
👥	Local Panchayats and Government

**Many of our ongoing CSR interventions at locations are focused on rural development through community asset creation.**

During the year, we built roads, class rooms and public toilets; conducted repair and renovation work at government schools; and put up street lights and solar lights in our communities.



Sakhi groups taking forward safety at Bhavanipura



Women learning Zardosi as part of skilling under Sakhi



Celebrating International Women's Day with a game of football



Projects Sustainable Development Goal (SDG) Alignment % spend of CSR Budget Partners

## HEALTH, WATER & SANITATION

Health Camps; Support to Homeopathic centre at Gulabpura; Angdaan Mahadaan Campaign; Company run hospitals ; Supporting water security in communities; Supporting Swachh Bharat Abhiyan

SDGs 3, 6, 9, 10, 11

9%

Mukhyamantri Jal Swavlamban Yojana (MJSY)- Government of Rajasthan, Swachh Bharat Abhiyan, Helpage India, Dainik Bhaskar

## SPORTS & CULTURE

Zinc Football Academy, World Music Festival - Udaipur

SDG 3, 5, 9, 10 & 11

14%

Football Link, Seher, Government of India

**Hindustan Zinc undertakes various initiatives for better health, water and sanitation in its core communities.**

During the year, following key initiatives were undertaken:

- The six Company run hospitals treated over 108,000 external patients through the year
- Over 22,000 patients were treated at a Homeopathic camp supported by Hindustan Zinc at Gulabpura
- Conducted mobile health camps in partnership with Helpage India directly benefitting over 5,600 citizens in 23 villages. In addition, conducted other health & awareness camps benefitting over 4,700 people
- Angdaan Mahadaan Campaign was initiated in partnership with Hindi daily Dainik Bhaskar to encourage people to pledge their organs for donation and to conduct discussion forums
- Under MJSY, 7 anicuts were constructed in Chittorgarh district and 1 in Udaipur district for rain water harvesting
- 1,100 meters of pipeline was laid in Sarlai and Delwas village in Chittorgarh district for drinking water purpose
- 30 school toilets were constructed in Chittorgarh under the Swachh Bharat Abhiyan



Health care for communities through our hospitals



Football Academy - mini coaching camp closing event

**Support for culture is an old pillar in our CSR policy. This year we also added sports launching a football academy in Rajasthan with a vision to make it best-in-class. The objective is to nurture and prepare young football talent from Rajasthan and make them part of the National Team.**

Zinc Football Academy -Hindustan Zinc has been organising All India Mohan Kumar Mangalam Football Tournament in Zawar for last 42 years. Given this long and rich footballing tradition, the Company has now set up a Football Academy which will not only have a residential academy but also 64 community academies across five districts.

During the year, scouting camps were held across Rajasthan, scouting nearly 3,500 children and shortlisting 56 of them for the Residential Academy. The 58 community football centres are also now operational including 4 centres for girls who made their debut in Rajasthan State championship and reached the semi-finals.

**World Music Festival:** Like every year, this year also the Company helped bring the World Music Festival to Udaipur which had performances by over 200 musicians from 17 different countries. The Festival had a footfall of over 50,000 people in 3 days.

Projects Sustainable Development Goal (SDG) Alignment % spend of CSR Budget Partners

## ENVIRONMENT

Tree Plantations, Renewable Energy, Sewerage Treatment Plant for Udaipur City

SDGs 7, 11, 15

11%

Urban Improvement Trust, Forest Department

We have wide range of initiatives around environmental stewardship with specific engagements at Udaipur city and community level as well as promoting renewable energy.

### SEWAGE TREATMENT PLANT (STP)

Hindustan Zinc runs a 20 MLD STP in Udaipur, which treated effluent of 6,215,000 Kilolitres during the year and recovered about 5,731,650 kilolitres of water. This STP is a unique PPP initiative of the Company and is counted among the best functioning STPs in the country.

### 'ROAD SAFETY'

The road safety project is running across all operating locations in partnership with All India Federation of Motor Vehicles Department. The focus areas for the project were the 4 E's of road safety, viz Education, Engineering, Enforcement & Emergency care. During the year, baseline surveys and stakeholder meetings involving all district level stakeholders were done and over 540 awareness sessions were done covering about 60,000 people.

During the year, a campaign to plant fruit trees in the premises of all Anganwadi centres supported by the Company was initiated. For the safety of community members in the villages, 231 new solar lights were installed and 243 were replaced in 42 villages across all locations.

## BE SAFE

With the aim to promote safety beyond the boundaries of Hindustan Zinc, a new initiative titled – 'Be Safe' was launched in association with All India Radio (AIR). A 5-minute program was broadcast daily by AIR for 90 days reaching masses in urban and rural Rajasthan to spread the message of being safe for their families.

## ENGAGING EMPLOYEES IN CSR

Khushi Baatiye, Paint for Joy, Movie Screening for visually challenged children, Holi Ke Rang Jeevan Tarang Ke Sang, International Women's Day

SDGs 4, 8, 10

Employee engagement has been an important way for involving people from across the organisation in the work that we do.

During the year, nearly 2,000 employees of the Company participated in CSR initiatives by contributing in cash and kind. Some of the key events were:

- **Khushi Baatiye** – a Fundraising Campaign on Diwali that brought Khushi in the lives of children of Anganwadis - raised funds from 304 employees and presented a new pair of clothes and sandals to over 64,000 children of Khushi Anganwadis
- **Audio Description Movie** – In a first of its kind initiative, blockbuster film 'Dangal' was screened in Audio Descriptive format for the visually impaired in Udaipur. About 130 employees attended the screening of the movie with visually impaired children
- **Summer & Winter Camp** - As part of our Shiksha Sambal Program, employees and their spouses have often been mentors to children in high schools, supporting both academic and non-academic aspects like theatre, music, yoga, craft, self-defence, etc.
- **Paint For Joy** – A painting event for the hearing impaired and children with autism and cerebral palsy was organised. Children painted to their hearts content helped by 100 employee volunteers
- **Holi Ke Rang** - This year, employees celebrated Holi with organic Gulal as part of a fund raising effort by Prayas Sansthan, Udaipur. The money from the sales of over 3,000 packets enabled Prayas to buy their centre's first television. Around 1,100 employees & families as well as people from communities across all locations purchased Gulal to contribute to this noble cause



Chairman with Jeevan Tarang children

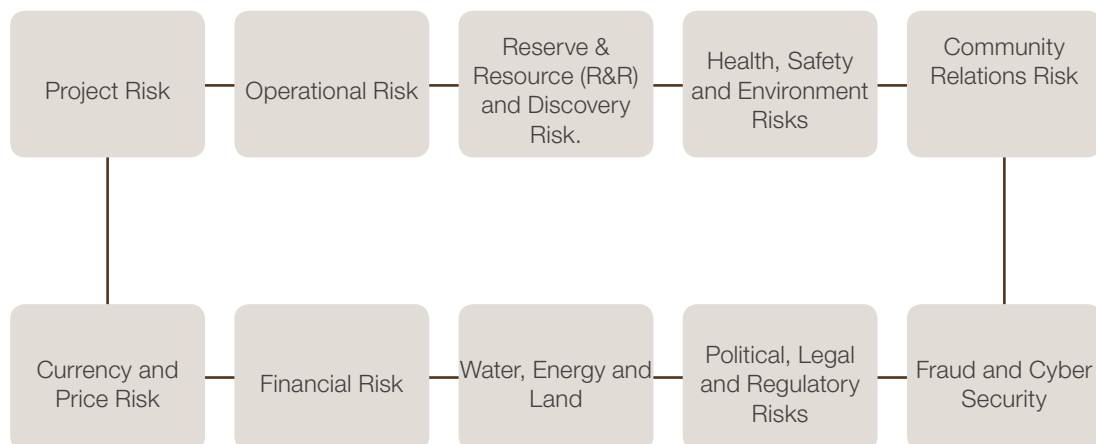
# RISK MANAGEMENT FRAMEWORK

We are exposed to a variety of risks inherent to global mining & resource organisation and other common business risks. Our philosophy of risk management encompasses strategy & operations and seeks to pro-actively identify, address and mitigate existing and emerging risks.

The Company continuously identifies, assesses and mitigates risks arising out of internal as well as external factors under its robust Risk Management Framework. Risk Management is embedded in our critical business activities, functions and processes. Materiality and tolerance of risk is key considerations in our decision making. There is a formal monitoring process at unit and Company level, wherein new risks are identified, categorised as per impact & likelihood, mapped to key responsibilities of select managers and managed with appropriate mitigation plan. Formal discussion on risk management happens in unit level review meetings on quarterly basis. The respective units review the risks, change in nature and quantum of major risks since the last assessment, control measures established for mitigation and further action plans. The control measures stated in the risk register are periodically reviewed to verify their effectiveness.

To ensure transparency and critical assessment, we have a Group Management Assurance System that co-ordinates the risk management framework, which is reviewed annually by the Audit Committee on behalf of the Board. This in turn is supported by a Board Level Risk Management Committee comprising of CEO, CFO and Chairman of the Audit Committee. Head of Group Management Assurance along with COO Mines and COO Smelters are permanent invitees.

Our principal risks, which have been assessed based on impact and likelihood, are described below. The order in which these risks appear does not necessarily reflect the likelihood of their occurrence or the potential magnitude of their impact on our business. Our Risk Management Framework is designed to help the organisation meet its objective. It is reasonably designed and reviewed to ensure that the risks are identified and mitigated in a timely manner.





## PROJECT RISK ON MINING PROJECTS

**The Company's current and future mining projects may be significantly delayed by failures to receive timely regulatory approvals or their renewals, technical difficulties, natural disasters, human resource, technological and other resource constraints, resulting in significant cost overruns and delays. Timely execution of underground mining projects is critical to deliver our growth plans.**

The Company continues to invest in ensuring the best-in-class human resources to complete large projects on time and within budgeted cost. Leading international consultants have been engaged for geotechnical modelling and optimisation to endorse mining projects' technical feasibility and mine stability. Renowned global contractors for shaft sinking, beneficiation plant, paste fill plant and mine development have been engaged for timely execution of the projects.

The project progress is closely monitored both at individual mine level and Company level. During the year we commissioned main shaft waste hoisting system & south primary ventilation system at Rampura Agucha and debottlenecked Zawar beneficiation plant. The Company produced ever highest production from underground mines and expansion activities are going well. Our underground mines have ramped up at a CAGR of approximately 36% achievement on time in the last five years.

## OPERATIONAL RISK

**Disruptions in mining and production due to natural calamities, equipment failures, unexpected interruptions, non-availability of input materials at appropriate price & quality and industrial unrest will negatively impact business operations.**

The Company's operational profitability is dependent upon the ability to produce metals at a low cost. Any disruption in the operations will impact production and costs. For this, the Company proactively undertakes

process improvements programs, benchmarks with best-in-class peers, increases automation to reduce manual-interface and focuses on asset optimisation & utilisation. The Company has created Business Excellence organisation to identify and drive savings and synergy initiatives, in order to further reduce costs and improve overall financial performance of our operations. These initiatives include aspects such as reducing cycle time, using low cost substitutes, optimising consumption, optimising supplier portfolio, consolidating purchases, combining logistics activities and developing closer relationships with key vendors to get benchmark performance and reduce costs.

The Company maintains cordial relations with employee unions and has comprehensive insurance programs to reduce risks.

## PEOPLE RISK

**The Company's inability to recruit and retain skilled manpower will hamper operations and projects.**

The Company's highly skilled workforce and experienced management team is critical in maintaining current operations, implementing development projects and achieving long-term growth. It continues to invest in initiatives to widen talent pool. Looking at the multi-fold increase in underground operations, there could be a potential shortage of underground mining professionals. The Company is proactively engaging international contractors and recruiting expatriates & experts and is also supporting local skill development through a mining academy in Rajasthan under the aegis of National Skill Development Council. There are robust processes and systems in place for leadership development - to nurture and promote talent from within the Company. Succession plan is in place for most key positions. Besides, the Company follows best practices to retain employees including several employee engagement initiatives, reward & retention schemes and fast track growth for high-potential employees.

## RESERVE & RESOURCE (R&R) AND DISCOVERY RISK

**The Company's longevity depends on its ability to access mineral resources that have desired geological characteristics enabling mining at competitive costs.**

The Company's strategic priority is to extend the life of its resources at a faster rate than it depletes them, through a focus on drilling high potential exploration targets within mine leases. In order to achieve this, it has a strong exploration organisation, latest tools & technologies and right fit contractors. The Company has more than doubled its R&R in last one decade and maintained overall mine life of over twenty-five years. It also engages the services of independent global experts annually to ascertain and verify the quantum and grade of R&R.

Additionally, the Company has an active portfolio of tenements where it has preferential rights under MMDRA Act 2015 at different stages of approval. It is also looking at participating in mineral auctions opened up by the Government recently.

## HEALTH, SAFETY AND ENVIRONMENT RISKS (HSE)

**The resource sector has inherent hazards and is therefore subject to extensive health, safety and environmental laws, regulations and standards. Any incident can result in property damages, injuries and potential fatalities as also adversely impact surrounding communities and environment. Such incidents may result in litigation, disruption of operations, penalties and loss of Company image & goodwill.**

The focus on HSE goes well beyond complying with international & local regulations and standards. Key priorities are to protect people, communities & the environment from harm and business operations from interruptions.

The Company has implemented a set of standards that align its sustainability framework to globally accepted international practices like

IFC, ICMM and OECD standards. In its quest to prevent all injuries and achieve the objective of zero harm, the Company has an ongoing programme “Aarohan” to achieve excellence in safety performance. The Company regularly monitors occupational health; hazard identification & analysis has been incorporated in all critical operations. The focus is on capturing leading indicators to eliminate incidents while continuing to invest in training of employees & contractors and remaining focused on creating a zero-harm culture across the organisation. All safety and environmental incidents are thoroughly investigated for root cause analysis and to eliminate recurrence. Tailing dam management has been a recent area of focus, where the Company is implementing the recommendations from the global experts to mitigate associated risks.

The Company has undertaken several initiatives to control air, water and noise pollution including dust suppression, electronically delayed blasting for minimal vibrations & dust, regular effluent monitoring and waste management to achieve the goal of zero discharge. It is also committed to reduce footprint on environment by judicious use of natural resources like water and energy and exploring alternate use of various wastes.

### COMMUNITY RELATIONS RISK

**Inability to provide inclusive growth to the communities and any disruption to their lives due to the Company’s operations will cause discontent and can have negative impact on the Company’s reputation and social license to operate.**

Establishing and maintaining close links with stakeholders is an essential part of sustainability journey. The Company regularly engages with local bodies and communities to help them identify their priorities through need assessment and articulate programs around assessed needs. It also seeks to identify & minimise potential negative impact caused by operations; act transparently and ethically; promote dialogue with communities and has developed

grievance mechanisms at each of its locations. Further details of CSR activities and environment management are included in the CSR & sustainability sections respectively and also covered in the Company’s Sustainability Report.

### CURRENCY AND PRICE RISK

**Price and demand of the Company’s finished products are inherently volatile and remain strongly influenced by global economic conditions. Any fluctuation in finished product prices or currency has direct impact on the Company’s revenue and profits.**

The Company considers exposure to commodity price fluctuations to be an integral part of its business and its usual policy is to sell its products at prevailing market prices. The Company has a well-defined policy framework wherein no speculative positions are taken and limited commodity hedging is done with an endeavor to achieve month-average rates both in currency and metal prices. The Company follows the policy of taking forward cover for net foreign currency exposure, if the net is payable in foreign currency and takes very limited exposures in non USD currencies. The Company also takes forward cover for next twelve months for projects on a rolling basis. All policies are periodically reviewed basis local and international economic environment.

### FINANCIAL RISK

**Like any large and complex business, the Company’s operations are also prone to interest rate volatility on treasury funds, counter party risk and insurance risk. If the financial policies are not designed well or not implemented rigorously, it could lead to control breakdown and impact the Company’s cash reserves, profitability, growth and image.**

The Company follows a conservative treasury policy revolving around capital protection and yield maximisation, in that order. Treasury operations are managed in an overall framework encompassing segregation of

duties, third party confirmations and supplementary management assurance audits. The Company policy restricts trading or speculative calls or dealing in exotic structured products.

Furthermore, the Company has defined policies to mitigate counter party risks by making substantially all its sales on a secured basis while its investments are only in highly rated debt instruments with defined counter party limits. The Company’s investment portfolio is periodically reviewed by an external agency certifying ‘highest’ credit quality basis evaluation of underlying portfolio and exposures. The Company runs a well-structured insurance program balancing risks and costs and encompassing loss of profits and project risks, in addition to traditional asset risks.

### WATER, ENERGY AND LAND

**Natural resource companies such as ours are highly dependent on availability of water, energy and land. Lack of availability of these resources will hamper Company’s operations and impact future projects.**

The Company endeavors to minimise its environment footprint and has several structured programs to reduce energy and water consumption and maximise utilisation of waste.

Supporting water conservation efforts of the Government is the stated priority and the Company maintains several water sources in conjunction with the Government. A Sewage Treatment Plant (STP) was also set up in Udaipur which not only reduces inflow of sewage into local lakes but also provides a sustainable water source to its operations. The second phase of STP is under progress.

The Company is self-sufficient in power through coal-based captive power generation for which it sources high calorific value coal from the global market in addition to established linkages from indigenous sources. The Company has also invested in wind and solar energy. It has already started working towards reducing GHG

emissions and is signatory to Science Based Target initiative (SBTi). Fly ash generated in power plants is sold to cement industry while major waste from zinc smelters is neutralised in an environment friendly manner and stored in secured landfills. Further, introduction of Fumer technology will help in eliminating land requirement for landfills and would convert these wastes into commercially usable slag.

### POLITICAL, LEGAL AND REGULATORY RISKS

**Non-compliance with applicable laws & regulations as well as changes in the Government policies, such as changes in royalty mechanism or rates, reduction in export incentives, changes in tax structure, cancellation or non-renewal of mining leases & permits and reduction or curtailment of duty & tax benefits available may adversely impact operations and hamper growth.**

The Company has a strong team of professionally qualified experts to manage compliance with laws and has built-in adequate checks and balances to monitor compliance through technology. Its well thought out tax planning strategies may sometimes get challenged resulting in long disputes which may not always go in Company's favour. Similarly, changes in royalty or additional levies or change in regulations could impact the Company's profitability and operations.

The Company proactively communicates with all Government functionaries to ensure that its suggestions and views are heard before policy making which may impact the industry and the Company's business.

The Company believes in responsible policy advocacy. The Company does not contribute funds to any political party.

### FRAUD AND CYBER SECURITY

**With ever increasing reliance on information technology, there is enhanced risk of security breaches resulting in misappropriation of funds or assets. Such breaches could bring the operations to a standstill or worse.**

The Company has an IT security framework in place and same is periodically reviewed and strengthened to mitigate newer threats and risks. Several safeguards and policies have been put in place to protect its network from cyber security attack. They are firewalls, intrusion detection & prevention systems, real-time security event monitoring, incident management system, content filtering, anti-spamming system, anti-ransomware, anti-virus and anti-spywares, password policy, encryption, backup, failover systems, disaster-recovery policy, mobile device management, etc. The Company is focusing on Plant Technical System security and have implemented various measures to mitigate all vulnerabilities. It has recently deployed ISO standards for Information Security Management and has been certified with ISO 27001 certification. It also carries out periodic penetration testing and vulnerability assessment.

The Company is further automating its processes and internal controls to minimise human intervention in all operations. For an effective Cyber Defense, it is also running a campaign for Information Security Awareness to all users.

There is a strong Code of Conduct and the Company encourages reporting of irregularities through its strong and well communicated whistle-blower mechanism and is governed by an Ethics Committee.

### INTERNAL CONTROLS

The Company has an effective and adequate internal audit and control systems, commensurate with its business size. Regular audits of operations are undertaken to ensure that high standards of internal controls are maintained at each level.

These consist of comprehensive internal and statutory audits, which are conducted by internationally reputed audit firms. Independence of the audit and compliance function is ensured by the auditors reporting directly to the Audit Committee.



# BE SAFE ZINDAGI SURAKSHIT RAHIYE

अपने लिए – अपनों के लिए

Taking forward the mission of Hindustan Zinc to bring about safety for the people within the premises and outside the premises, radio project – BE SAFE ZINDAGI is launched from 1st July 2018 on My FM – 94.3 in Udaipur.

60 Days – 600 Messages

Reaching out to 100% radio listeners of Udaipur

## BE SAFE ZINDAGI

Always wear helmets

Always wear seatbelts

Only 2 passengers on 2 wheelers

Ensure your children go to school safely

Do not do rash driving

Do not over speed

Do not overload

Do not speak or text on mobile while driving

**YOU MEAN YOUR LIFE TO YOUR FAMILY  
FOLLOW ALL TRAFFIC RULES**

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**STATUTORY**

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**REPORTS**

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# BOARD'S REPORT

Dear Members,

The Directors are pleased to inform that Hindustan Zinc delivered strong performance from all our underground mines and many benchmarks in operational and financial performance were set during the year.

## I. FINANCIAL PERFORMANCE

We share with you our 52nd Annual Report, together with the Audited Financial Statements for the year ended March 31, 2018.

### FINANCIAL INFORMATION

Particulars	₹ in Crore	
	FY 2018	FY 2017
Revenue from operations (net of Excise Duty)	22,084	17,273
Other Income	1,751	2,474
Profit before depreciation, interest and tax	14,263	12,213
Less: Interest	283	202
Less: Depreciation and amortization expense	1,483	1,811
Profit before tax	12,497	10,200
Less: Net tax expense	3,221	1,884
Net profit	9,276	8,316
Earnings per share, ₹	21.95	19.68

#### REVENUE

The Company reported 'Revenue from operations' (net of excise duty) of ₹ 22,084 Crore, an increase of 28% y-o-y driven primarily by higher metal volumes and prices partly offset by impact of rupee appreciation.

The 'Other income' was ₹ 1,751 Crore during the year compared to ₹ 2,474 Crore in the previous year on account of lower rate of return resulting from a broader decline in interest rates as well as lower investment corpus on account of special dividend payment.

#### PRODUCTION COST

Net zinc metal cost, without royalty, during the year was higher by 14% in INR (18% in USD) at ₹ 63,583 (\$976) primarily due to 38% increase in imported coal prices and metcoke prices and about 15% increase in diesel prices as well as lower ore grades, partly offset by higher metal production.

#### OPERATING MARGIN

The above revenue and production cost resulted in profit before depreciation, interest and tax (PBDIT) of ₹ 14,263 Crore in FY 2018, up 17%.

#### NET PROFIT

The Company reported record net profit of ₹ 9,276 Crore, 12% higher than previous year on account for higher PBDIT and lower depreciation, partly offset by higher tax. With effect from April 1, 2017, the Company has changed its depreciation method and revised certain estimates relating to depreciation resulting in a lower charge for the full year by ₹ 321 Crore.

Net profit was also impacted by a one-time exceptional gain of ₹ 291 Crore related to the Supreme Court's favourable judgement on District Mineral Foundation (DMF) levies leading to write back of excess DMF liability for the period January 12, 2015 to September 16, 2015. This was reduced by a one-time exceptional loss of ₹ 51 Crore related to gratuity provision for earlier years as per the ceiling enhancement announced towards end of the year.

#### EARNINGS PER SHARE (EPS)

The EPS for the year was ₹ 21.95 per share as compared to ₹ 19.68 per share in FY 2017.

#### DIVIDEND

On March 16, 2018, the Board of Directors declared second interim dividend of 300% i.e. ₹ 6 per share on equity share of ₹ 2. Together with the interim dividend of ₹ 2 (100%) paid in October 2017, the aggregate interim dividend paid during FY 2018 was ₹ 8 per share (400%) amounting to ₹ 4,068 Crore including DDT. In view of the second interim dividend, no final dividend is recommended.

#### CREDIT RATING AND LIQUIDITY

CRISIL has reaffirmed the Company's long-term rating of AAA/Stable and short-term rating of A1+. The Company's strong financial risk profile is driven by its sustained strong liquidity and conservative capital structure as well as its integrated operations, highly competitive cost position and high-grade reserves.



The Company follows a conservative investment policy and invests in high quality debt instruments. As on March 31, 2018, the Company's cash and cash equivalents was ₹ 20,395 Crore invested in high quality debt instruments and the portfolio is rated "Tier -1" implying Highest Safety by CRISIL. During the year, the Company paid off ₹ 8,000 Crore of short term commercial paper raised in March 2017 to meet the special interim dividend funding requirement.

## CASH FLOWS

Particulars	₹ in Crore	
	FY 2018	FY 2017
Opening Cash*	23,972	35,272
Add: EBITDA**	12,376	9,734
Add: Net Interest Income	1,291	2,166
Less: Income Tax & Dividend	13,497	21,310
Less: Capital Account Payments	2,733	2,008
(Increase) / Decrease in Working Capital & Others	-1,014	118
Closing Cash*	20,395	23,972

(\*) Includes Cash and Equivalents (refer Note 11 of the Audited Financial Statements) and Current Investments (refer Note 9 of the Audited Financial Statements)

(\*\*) Earnings before Interest, Tax, Depreciation and Amortization expenses and Income on investments.

### GROSS WORKING CAPITAL

Gross working capital represented by inventory, trade receivables and other current assets decreased from ₹ 2,486 Crore to ₹ 1,956 Crore as at March 31, 2018 primarily due to reduction of ore, mined metal and stores inventory. The working capital cycle was 32 days in FY 2018 as compared to 52 days in FY 2017.

### GROSS BLOCK

The gross block during the year increased from ₹ 20,975 Crore to ₹ 23,879 Crore. This was largely due to the on-going mining projects and other sustaining capex.

### CAPITAL EMPLOYED

The total capital employed as at March 31, 2018 was ₹ 15,537 Crore, as compared to ₹ 14,740 Crore at the end of previous fiscal year. The increase is mainly due to addition in fixed assets as reduced by reduction in gross working capital and repayment of temporary borrowings.

### CONTRIBUTION TO THE GOVERNMENT TREASURY

The Company has contributed ₹ 9,301 Crore during FY 2018, in terms of royalties, taxes and dividends to the Government treasury on cash basis, aggregating to approximately 42% of the total revenue.

## II. OPERATIONAL PERFORMANCE

### PRODUCTION

Mined metal production for FY 2018 was 947 kt, 4% higher from a year ago and the highest ever. This was driven by higher ore production from underground mines, partly offset by lower open-cast production and lower ore grades. Performance from underground mines remained robust, attaining best ever ore and mined metal production during the year.

In FY 2018, the Company delivered record integrated refined zinc-lead metal production at 960kt, up 18% from a year ago, driven by higher smelter efficiency and uniform availability of mined metal throughout the year. Integrated zinc production was 791kt as compared to 672kt a year ago, an increase of 18%, while integrated saleable lead production was 168kt as compared to 139kt from a year ago, an increase of 21%.

During the year, integrated saleable silver production was a record 558 MT as compared to 453 MT a year ago, an increase of 23%, in line with higher lead production.

The Company generated record 4,155 million units of power in FY 2018 as compared to 3,345 million units in FY 2017. Total wind power generation was 414 million units as compared to 448 million units in FY 2017.

### SALES

The refined zinc metal sales in the domestic market during the year was 515 kt, while export sales accounted for 278kt. The aggregate sales were higher by 13.9% than previous year. Lead metal sales in the domestic market were 139 kt, while export sales were 30 kt leading to higher aggregate sales of 22.1% from a year ago. The increase was in line with higher metal production during the year. Silver sales were 556 MT in FY 2018, all in the domestic market and 23.9% higher than previous year.

## III. RESERVE AND RESOURCE (R&R)

During the year, the Company added 19.5 million MT to its R&R, prior to a depletion of 12.6 million MT during the period. Total R&R on March 31, 2018 were 411.3 million MT containing 35.7 million MT of zinc-lead metal and approximately 28,500 MT of silver.

#### IV. PROJECTS

The announced mining projects are progressing in line with the target of reaching 1.2 million MT per annum of mined metal capacity in FY 2020.

##### UPDATE ON ONGOING EXPANSION PROJECTS

The announced mining projects are progressing in line with the expectation of reaching 1.2 million tonnes per annum of mined metal capacity in FY 2020. Capital mine development was 38.5 km during the year, an increase of 65% y-o-y.

Rampura Agucha underground reached an ore production run-rate of 3.0 mtpa towards the end of the year. The main shaft hoisting and south ventilation shaft systems were commissioned during the year, while off-shaft development is on track. Production from the main shaft is expected to start as planned from Q3 FY 2019.

Sindesar Khurd mine achieved its target capacity of 5 million tonnes towards the end of the year and is gearing up for higher production. The main shaft was equipped during the year and winder installation work has begun. Production from the shaft is expected to start as scheduled in Q3 FY 2019. Civil and structure erection for the new mill is ongoing and expected to be commissioned in Q2 FY 2019.

Towards the end of the year, orders were placed for paste fill plants for both the Rampura Agucha and Sindesar Khurd mines.

Zawar mines achieved record ore production of 2.2 million tonnes during the year and production capacity has been ramped up to 3.0 mtpa. The existing mill capacity was debottlenecked to 2.7 mtpa. Civil construction work for the new mill is progressing well, with commissioning expected by Q4 FY 2019.

Ministry of Environment, Forest and Climate Change (MoEF) has given environmental clearance for the expansion of ore production at the Kayad mine from 1.0 to 1.2 mtpa. The Kayad project is now operating at its rated capacity of 1.2 mtpa.

The Fumer project at Chanderiya is progressing as scheduled and expected to commission in mid FY 2019.

##### NEXT PHASE OF EXPANSION ANNOUNCED

Based on a long-term evaluation of assets and in consultation with global experts, the Company is evaluating plans to increase its mined metal capacity from 1.2 to 1.5 million MT per annum. The Board has approved the Phase I of this expansion which will increase mined metal from 1.20 to 1.35 million MT per annum through brownfield expansion of existing at an estimated capital expenditure of ₹ 4,500 Crore.

Phase I includes incremental ore production capacity of 0.5 million MT per annum each at Rampura Agucha, Sindesar Khurd and Rajpura Dariba mines bringing the total capacity to 5.0, 6.5 and 2.0 million MT per annum respectively. The capacity of Zawar mines will be increased by 1.2 to 5.7 million MT per annum. These projects will take total ore production capacity to 20.4 million MT per annum and mined metal capacity from 1.20 to 1.35 million MT per annum. Phase I will be completed in three years and will be done concurrently with the ongoing expansion which is now in its final stages.

#### V. OUTLOOK

Mined metal and refined zinc-lead production in FY 2019 is expected to be slightly higher than that of last year, filling the gap caused by completion of open-cast production. Silver production is expected to be in the range of 650 to 700 MT.

COP before royalty is projected to be in the range of USD 950 to 975 per MT in FY 2019. Tax rate is expected to trend up while quarterly depreciation expense is expected to be in the range of ₹ 350 to ₹ 400 Crore. The project capex on mining and smelter expansions is expected to be approximately USD 400 million in FY 2019.

#### VI. HEALTH, SAFETY AND ENVIRONMENT

The Company's efforts towards building a safety culture and achieving its goal of zero harm has led to reduction in Lost Time Injury Frequency Rate by 10% for the year and by 69% over the last 5 years to the lowest ever at 0.27.

Despite our best efforts, there were regrettably two fatalities during the year at Chanderiya Fumer and Rampura Agucha underground mine project sites. Both the accidents were investigated and corrective actions have been taken to make workplace safe. Safety and sustainability initiatives have been discussed in detail in 'Business Review', which forms a part of this Annual Report.

#### VII. CORPORATE SOCIAL RESPONSIBILITY (CSR)

The Company's CSR focuses on Education; Sustainable Livelihoods; Women's Empowerment; Health, Water and Sanitation; Sports and Culture; Environment; and Community Development including Community Assets Creation.

During the year, the Company spent ₹ 92.18 Crore on CSR programs as compared to ₹ 49.40 Crore in previous year. For further details, refer Annexure 5 and 'Business Review' section of this Annual Report.

#### VIII. DIRECTORS

During the year under review, there has been no change in the Directors of the Company.

**IX. MANAGEMENT DISCUSSION AND ANALYSIS**

The Business Review section of this Annual Report gives a detailed account of the Company's operations and the market in which it operates, including its initiatives in areas such as human resources, sustainability and risk management.

**X. CORPORATE GOVERNANCE AND BUSINESS RESPONSIBILITY REPORT**

As a listed company, necessary measures are taken to comply with the listing agreements of the Stock exchanges. A report on Corporate Governance, along with a certificate of compliance from the statutory auditors, forms part of this report. Further, Business Responsibility Report describing the initiatives taken by your Company from an Environmental, Social and Governance perspective, also forms a part of this report. Various disclosures as required under section 134 and 135 of the Companies Act 2013 are annexed to this report or covered in the Corporate Governance Report, such as Related Party Transactions; Information and details on conservation of energy, technology absorption, foreign exchange earnings and outgo; extract of annual return; constitution of various Board level Committees; Annual Report on CSR.

**XI. DIRECTORS RESPONSIBILITY STATEMENT**

As required under Section 134(5) of the Companies Act, 2013, the Directors hereby confirm that:

- i. In the preparation of the annual accounts, the applicable accounting standards read with requirements set out under Schedule 3 to the Act, have been followed and there are no material departures in the same.
- ii. The Directors have selected such accounting policies, applied them consistently and made judgements and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year and of the profits of the Company for that period.
- iii. The Directors have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of this Act, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities.
- iv. The Directors have prepared the annual accounts on a 'Going Concern' basis.
- v. The Directors have laid down internal financial controls to be followed by the Company and that such internal financial controls are adequate and were operating effectively; and

- vi. The Directors have devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems are adequate and operating effectively

**XII. AUDITORS**

The Company had appointed M/s. SR Batliboi & Co. LLP, Chartered Accountants, as Statutory Auditors of the Company to conduct audit of Financial Statements for the year ended March 31, 2018. The Notes to Financial Statement referred to in the Auditors' Report are self-explanatory and do not call for any further comments. The Auditors' Report does not contain any qualification or reservation. The only adverse remark given by Statutory Auditors and Secretarial Auditors (M/s. V. M. and Associates) is for not fulfilling the criteria of adequate number of Independent Directors which is expected to be complied soon.

Pursuant to the orders issued by the Central Government under section 148 of The Companies Act, 2013, the Board has appointed M/s K G Goyal & Co. Cost Accountants for conducting the audit of the cost accounting records maintained by the Company for all its products and M/s V M & Associates, Company Secretaries as the Secretarial Auditors for conducting the Secretarial audit of the Company.

As per provisions of Section 136 of the Companies Act, 2013, the Annual Report including the Audited Accounts for the year will be sent to all the Shareholders.

**XIII. PARTICULARS OF EMPLOYEES**

Disclosures pertaining to remuneration and other details as required under Section 197(12) of the Act, read with Rule 5(1) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014 are attached to this report. In terms of the provisions of Section 197(12) of the Companies Act, 2013 read with Rules 5(2) of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, a statement showing the names and other particulars of employees drawing remuneration in excess of the limits set out in the said Rules forms part of the Report. However, having regard to the provisions of the first proviso to Section 136(1) of the Companies Act, 2013, the Annual Report excluding the aforesaid information is being sent to the Members of the Company. The said information is available for inspection at Registered Office of the Company during working hours. Any member interested in obtaining such information may write to the Company Secretary at the registered office and the same will be furnished on request. Further the details are also available on the Company's website: [www.hzlindia.com](http://www.hzlindia.com).



**XIV. ACKNOWLEDGMENTS**

The Board of Directors places on record its sincere appreciation of the contribution made by the employees and the employees' unions in the success of the Company. The Directors also sincerely thank the Central Government and the State Governments of Rajasthan, Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu, Maharashtra, Jharkhand and Uttarakhand; and the bankers, auditors, vendors, customers and the shareholders of the Company for their continued support.

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO and Whole-time Director

**A. R. Narayanaswamy**

Director

Place: Mumbai

Date: April 30, 2018

# ANNEXURE 1

Particulars of technology absorption and foreign exchange earnings and outgo, as per Section 134(3)(m) of the Companies Act, 2013 and the rules made therein and forming part of the Board's Report for the year ended March 31, 2018.

## A) CONSERVATION OF ENERGY

- a. Leakage arresting drive has been initiated across all CPPs which result in the reduction in power consumption of air compressors
- b. All fan ducts at Chanderiya CPP has been analysed through computational fluid dynamics software and modifications have been carried out to reduce pressure drop and save energy
- c. Modification in the turbine rotor sealing has been carried out in Dariba CPP which results in reduction of steam consumption and auxiliary power consumption of power plant
- d. Thermography and furnace leak test has been carried out in all CPPs and actionables have been implemented which results in reduction of power consumption in ID fan
- e. Colling tower fills replacement has been carried out at Dariba CPP and Zawar CPP which reduce the auxiliary power consumption of power plant
- f. Efficiency of boiler feed pump in power plant has been improved by carrying replacement of ARC in boiler feed pump

## B) TECHNOLOGY ABSORPTION

### A. SPECIFIC AREAS IN WHICH R&D HAS BEEN CARRIED OUT BY THE COMPANY IN FY 2018:

- i. Pilot scale testing successfully completed for Copper-Bismuth slag treatment; realization from slag has improved by generating copper sulphate for mines and bismuth salts
- ii. Usage of fly ash as partial replacement of cement in paste fill plants has been validated and implemented
- iii. Alternate technology tested for recovery of sodium sulphate crystals from RO reject streams at pilot scale. The crystal recovery has improved from 40% to 80% with more than 98% crystal purity
- iv. Process for recovery of cobalt from purification cake has been explored at lab scale and cobalt sulphate crystal of about 60% purity with 50% recovery has been generated. Enhancing of cobalt salt purity and recovery is being explored

- v. Testing initiated for new technologies like staged flotation reactor and direct screening for RD mines
- vi. Studies conducted for Zawar Mines circuit optimization and recovery improvement

### B. BENEFITS DERIVED AS RESULT OF ABOVE R&D

- i. Sustainable utilization of smelter wastes in construction
- ii. Improved realization from residues
- iii. Controlling the operating cost by usage of flyash as partial replacement of cement in paste fill
- iv. Establishing Zero liquid and zero solid waste process for effluent
- v. Generation of new products like antimony tri-oxide, bismuth oxy-chloride, cobalt carbonate and sodium sulphate
- vi. Grinding circuit optimization & process improvement through modeling & simulation
- vii. Recovery improvement by employing new technologies

### C. FUTURE PROJECTS FOR R&D IN FY 2019

- i. Process flowsheet validation for cobalt recovery from purification cake
- ii. Usage of waste rock for generation of aggregates
- iii. Process for recovery of Vanadium from spent vanadium catalyst
- iv. Evaluation of alternative reagents for floatation circuit
- v. Exploring new technology for improving recoveries from challenging ores
- vi. Feasibility studies for generation of Graphene from graphite concentrate

## C) FOREIGN EXCHANGE EARNINGS AND OUTGO

During the year, foreign exchange outgo was ₹ 2,686 Crore (which includes import of capital goods, stores & spares, coal, consumables, consultancy, traveling etc.), while foreign exchange earned was ₹ 6,133 Crore.

**FORM "A"****FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO CONSERVATION OF ENERGY**

Particulars	Unit	Year ended March 31, 2018	Year ended March 31, 2017
<b>A ELECTRICITY, POWER GENERATION &amp; FUEL CONSUMPTION</b>			
Purchase Units	Million Kwh	191	264
Total Amount	₹ Cr	149.33	210.48
Average rate of purchasing	₹/kwh	7.82	7.98
<b>CPP - Units generated from fuel oil</b>			
Own Generation Units (From Fuel Oil)	Million Kwh	0	1
Quantity Consumed			
LSHS/FO	MT	0	0
HSD	KL	526	453
Total Amount	₹ Cr	4.03	2.33
Average cost of fuel per Kg	₹/kg	93.28	60.01
Average cost of generation	₹/kwh	193.97	22.50
Unit generated per unit of fuel (LSHS/FO/HSD)	kwh/kg	0.48	2.79
<b>CPP - Units generated from Coal</b>			
Own Generation Units (From Coal)	Million Kwh	3,693	3,241
Quantity Consumed			
Coal	MT	1,784,862	1,587,724
LDO	KL	352	240
Total Amount	₹ Cr	1,359.91	1026.26
Average cost per Kg (Coal)	₹/kg	7.62	6.46
Average cost per Kg (LDO)	₹/kg	57.96	54.45
Average cost of generation	₹/kwh	4.21	3.56
Unit generated per unit of fuel (Coal)	kwh/kg	2.26	2.24
<b>B) FUEL CONSUMPTION FOR METAL PRODUCTION</b>			
(a) L.P.G./Propane			
Quantity	Million Kg	5.61	8.21
Total Amount	₹ Cr	23.17	29.29
Average cost per Kg	₹/Kg	41.27	35.68
(b) L.D.O./LSHS/FO			
Quantity	KL	19,000	18,091
Total Amount	₹ Cr	66.78	52.34
Average cost per Ltr	₹/Ltr	35.15	28.93
(c) Coal for Steam and Others			
Quantity	MT	26,424	28,552
Total Amount	₹ Cr	20.03	17.20
Average cost per MT	₹/MT	7,580	6,025
(d) Met Coke & Coke breeze			
Quantity	MT	134,822	131,478
Total Amount	₹ Cr	353.69	255.56
Average cost per MT	₹/MT	26,234	19,437



**CERTIFICATE OF COMPLIANCE WITH THE CODE OF CONDUCT POLICY**

As provided under clause 17 (5) (a) of the SEBI (LODR) Regulation 2015, all Board Members and the Senior Management personnel have confirmed compliance with the Business Ethics and Code of Conduct for the year ended on March 31, 2018.

For **Hindustan Zinc Limited**

**Sunil Duggal**

CEO & Whole-time Director

Place: Mumbai

Date- April 30, 2018

**FORM NO. MR-3****SECRETARIAL AUDIT REPORT**

FOR THE FINANCIAL YEAR ENDED 31<sup>st</sup> March, 2018

[Pursuant to section 204(1) of the Companies Act, 2013 and Rule No.9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,  
The Members,  
Hindustan Zinc Limited  
Yashad Bhavan, Yashadgarh  
Udaipur – 313 004 (Rajasthan)

We have conducted the secretarial audit of the compliance of applicable statutory provisions and the adherence to good corporate practices by **Hindustan Zinc Limited** (hereinafter called "**the Company**"). Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the Company's books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of secretarial audit, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on March 31, 2018 ('Audit Period') complied with the statutory provisions listed hereunder and also that the Company has proper Board-processes and compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter:

We have examined the books, papers, minute books, forms and returns filed and other records maintained by the Company for the financial year ended on March 31, 2018 according to the provisions of:

- (i) The Companies Act, 2013 (the Act) and the rules made thereunder;
- (ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder;

- (iii) The Depositories Act, 1996 and the Regulations and Bye-laws framed thereunder;
- (iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings; **(Not applicable to the Company during the Audit Period)**
- (v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):-
  - (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;
  - (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;
  - (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2009; **(Not applicable to the Company during the Audit Period)**
  - (d) The Securities and Exchange Board of India (Share Based Employee Benefits) Regulations, 2014; **(Not applicable to the Company during the Audit Period)**
  - (e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008; **(Not applicable to the Company during the Audit Period)**
  - (f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client;
  - (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2009; **(Not applicable to the Company during the Audit Period)**

- (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 1998; **(Not applicable to the Company during the Audit Period)** and
- (i) The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015
- (vi) As confirmed, following other laws are specifically applicable to the Company for which the Management has confirmed that the Company has devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems are adequate and operating effectively:
  - (a) The Mines Act, 1952 and Rules made thereunder; and
  - (b) The Mines and Minerals (Development and Regulation) Act, 1957 and the Rules made thereunder.

We have also examined compliance with the applicable clauses of the following:

- i. Secretarial Standards issued by The Institute of Company Secretaries of India;
- ii. The Listing Agreements entered into by the Company with BSE Ltd. and National Stock Exchange of India Limited.

During the period under review the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc. as mentioned above **except expense on CSR activities below the prescribed limit.**

Place: Jaipur

Date: April 30, 2018

#### WE FURTHER REPORT THAT

The Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors **except that with regard to the requirement of having at least one half of the Board of Directors comprising of Independent Directors in terms of Regulation 17 of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, the Company falls short by one Independent Director.** The changes in the composition of the Board of Directors that took place during the period under review were carried out in compliance with the provisions of the Act.

Adequate notice is given to all Directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance, and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

Majority decision is carried through while the dissenting members' views, if any, are captured and recorded as part of the minutes.

**We further report that** there are adequate systems and processes in the company commensurate with the size and operations of the company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

**We further report that** during the audit period the company has not undertaken any event/action having a major bearing on the Company's affairs in pursuance of the above referred laws, rules, regulations, guidelines, standards, etc.

For **V. M. & Associates**  
Company Secretaries  
(ICSI Unique Code P1984RJ039200)

**CS Manoj Maheshwari**  
Partner  
FCS 3355  
C P No.: 1971

Note: This report is to be read with our letter of even date which is annexed as **Annexure A** and forms an integral part of this report.

**ANNEXURE A**

To,  
The Members,  
Hindustan Zinc Limited  
Yashad Bhavan,  
Udaipur – 313 004 (Rajasthan)

Our report of even date is to be read along with this letter.

1. Maintenance of secretarial record is the responsibility of the management of the company. Our responsibility is to express an opinion on these secretarial records based on our audit.
2. We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the Secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, we followed provide a reasonable basis for our opinion.
3. We have not verified the correctness and appropriateness of financial records and Books of Accounts of the company.
4. Where ever required, we have obtained the Management representation about the compliance of laws, rules and regulations and happening of events etc.
5. The compliance of the provisions of Corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedures on test basis.
6. The Secretarial Audit report is neither an assurance as to the future viability of the company nor of the efficacy or effectiveness with which the management has conducted the affairs of the company

Place: Jaipur  
Date: April 30, 2018

For **V. M. & Associates**  
Company Secretaries  
(ICSI Unique Code P1984RJ039200)

**CS Manoj Maheshwari**  
Partner  
FCS 3355  
C P No.: 1971



# ANNEXURE 2

## PARTICULARS OF CONTRACT OR ARRANGEMENTS WITH RELATED PARTIES

### FORM NO. AOC-2

FORM FOR DISCLOSURE OF PARTICULARS OF CONTRACTS/ARRANGEMENTS ENTERED INTO BY THE COMPANY WITH RELATED PARTIES REFERRED TO IN SUB-SECTION (1) OF SECTION 188 OF THE COMPANIES ACT, 2013 INCLUDING CERTAIN ARM'S LENGTH TRANSACTIONS UNDER THIRD PROVISIO THERETO

#### 1. Details of contracts or arrangements or transactions not at arm's length basis: NIL

- (a) Name(s) of the related party and nature of relationship
- (b) Nature of the contracts/arrangements/transactions
- (c) Duration of the contracts / arrangements/ transactions
- (d) Salient terms of the contracts or arrangements or transactions including the value, If any
- (e) Justification for entering into such contracts or arrangements or transactions
- (f) Date(s) of approval by the board
- (g) Amount paid as advances, if any:
- (h) Date on which the special resolution was passed in general meeting as required under first proviso to section 188

#### 2. Details of the material contracts or arrangements or transactions at arm's length basis: NIL

- (a) Names(s) of the related party and nature of relationship
- (b) Nature of contracts/arrangements/transactions
- (c) Duration of the contracts / arrangements/ transactions
- (d) Salient terms of the contracts or arrangements or transactions including the value, If any
- (e) Date(s) of approval by the board
- (f) Amount paid as advances, if any:

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO and Whole-time Director

**A. R. Narayanaswamy**

Director

Place: Mumbai

Date: April 30, 2018

Note: In item 2, material is defined as greater than 10% of the turnover

# ANNEXURE 3

## FORM NO. MGT-9

### EXTRACT OF ANNUAL RETURN

as on the financial year ended on 31.03.2018

[Pursuant to section 92(3) of the Companies Act, 2013 and rule 12(1) of the Companies (Management and Administration) Rules, 2014]

#### I. REGISTRATION AND OTHER DETAILS:

i)	CIN	:	<b>L27204RJ1966PLC001208</b>
ii)	Registration Date	:	<b>January 10, 1966</b>
iii)	Name of the Company	:	<b>Hindustan Zinc Limited</b>
iv)	Category / Sub-Category of the Company	:	<b>Public Limited Company</b>
v)	Address of the Registered office and contact details: -	:	<b>Yashad Bhawan, Udaipur - 313004 (Rajasthan)</b> <b>Email id: - hzl.cosecy@vedanta.co.in</b> <b>Phone No: - 0294-6604000</b>
vi)	Whether listed company Yes / No	:	<b>Yes</b>
vii)	Name, Address and Contact details of Registrar and Transfer Agent, if any: -	:	<b>Karvy Computershare Private Limited</b> <b>"Karvy House"</b> <b>46, Avenue 4, Street No. 1, Banjara Hills</b> <b>Hyderabad – 500 034.</b> <b>Phone – 040-23312454/44677312</b>

#### II. PRINCIPAL BUSINESS ACTIVITIES OF THE COMPANY

- Mining and Smelting of Non-Ferrous metals (Zinc, Lead, Silver).
- Wind energy

All the business activities contributing 10% or more of the total turnover of the Company shall be stated: -

Sl. No.	Name and Description of main products / services	NIC Code of the Product / service	% to total turnover of the company
1	Zinc	27204	75.1%*
2	Lead	27209	13.0%

\*Including Mined Metal sale

#### III. PARTICULARS OF HOLDING, SUBSIDIARY AND ASSOCIATE COMPANIES

Sl. No.	Name and Address of the Company	CIN/GLN	Holding / Subsidiary / Associate	% of shares held	Applicable Section
1	Vedanta Limited	L13209GA1965PLC00044	HOLDING	64.92%	2 (46)

## IV. SHARE HOLDING PATTERN (EQUITY SHARE CAPITAL BREAKUP AS PERCENTAGE OF TOTAL EQUITY)

## (I) CATEGORY-WISE SHARE HOLDING

Category of Shareholders	No. of Shares held at the beginning of the year			No. of Shares held at the end of the year			% Change during the year
	Demat	Physical	Total	Demat	Physical	Total	
<b>A. Promoters</b>							
(1) Indian							
a) Individual/HUF	-	-	-	-	-	-	-
b) Central Govt	-	-	-	-	-	-	-
c) State Govt (s)	-	-	-	-	-	-	-
d) Bodies Corp. – Vedanta Limited	2743154310	0	2743154310	2743154310	0	2743154310	64.92
e) Banks / FI	-	-	-	-	-	-	-
f) Any Other	-	-	-	-	-	-	-
<b>Sub-total (A) (1)</b>	<b>2743154310</b>	<b>0</b>	<b>2743154310</b>	<b>2743154310</b>	<b>0</b>	<b>2743154310</b>	<b>64.92</b>
(2) Foreign							
a) NRIs - Individuals	-	-	-	-	-	-	-
b) Other Individuals	-	-	-	-	-	-	-
c) Bodies Corp.	-	-	-	-	-	-	-
d) Banks / FI	-	-	-	-	-	-	-
e) Any Other	-	-	-	-	-	-	-
<b>Sub-total (A)(2)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total shareholding of Promoter (A) = (A)(1) + (A)(2)</b>	<b>2743154310</b>	<b>0</b>	<b>2743154310</b>	<b>2743154310</b>	<b>0</b>	<b>2743154310</b>	<b>64.92</b>
<b>B. Public shareholding</b>							
<b>1. Institutions</b>							
(a) Mutual Funds/ UTI	26395673	265000	26660673	37304507	265000	37569507	0.89
(b) Financial Institutions / Banks	980960	45000	1025960	1623381	45000	1668381	0.04
(c) Central Government/ State Government(s)	1247950590	0	1247950590	1247950590	0	1247950590	29.54
(d) Venture Capital Funds	-	-	-	-	-	-	-
(e) Insurance Companies	17884037	0	17884037	24668104	0	24668104	0.58
(f) Foreign Institutional Investors	12584632	111000	12695632	3338834	111000	3449834	0.08
(g) Foreign Venture Capital Investors	-	-	-	-	-	-	-
(h) Alternate Investment Funds	-	-	-	876800	0	876800	0.02
(i) Any Other (specify)							
(i-) Central Government	2384402	0	2384402	1927464	0	1927464	0.05
(i-ii) Clearing Member	1421191	0	1421191	99297	0	99297	0.00
(i-iii) NBFC	31118	0	31118	8320	0	8320	0
(i-iv) HUF	1651228	0	1651228	1541374	0	1541374	0.04
<b>Sub-Total (B)(1)</b>	<b>1311283831</b>	<b>421000</b>	<b>1311704831</b>	<b>1319338671</b>	<b>421000</b>	<b>1319759671</b>	<b>31.24</b>



Category of Shareholders	No. of Shares held at the beginning of the year				No. of Shares held at the end of the year				% Change during the year
	Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
<b>2. Non-Institutions</b>									
(a) Bodies Corporate	24140419	135000	24275419	0.57	22925813	135000	23060813	0.55	(-) 0.02
(b) Individuals									
i) Individual shareholders holding nominal share capital up to ₹ 2 Lakh	42583516	1665601	44249117	1.05	40983618	1606269	42589887	1.00	(-) 0.05
ii) Individual shareholders holding nominal share capital in excess of ₹ 2 Lakh.	851151	0	851151	0.02	1921923	0	1921923	0.05	0.03
(c) Any Other (specify)									
(c-i) Trust	56082	0	56082	0	79292	0	79292	0	0
(c-ii) NRI	1502346	690000	2192346	0.05	1828152	690000	2518152	0.06	0.01
(c-iii) NRI Company	-	-	-	-	-	-	-	-	-
(c-iv) Foreign Individual	1250	0	1250	0	100	0	100	0	0
(c-v) Foreign Corporate Bodies	98834494	0	98834494	2.34	92233912	0	92233912	2.18	(-) 0.16
(c-vi) IEPF	-	-	-	-	940	0	940	0	0
<b>Sub-Total (B)(2)</b>	<b>167969258</b>	<b>2490601</b>	<b>170459859</b>	<b>4.03</b>	<b>159973750</b>	<b>2431269</b>	<b>162405019</b>	<b>3.84</b>	<b>(-) 0.19</b>
<b>Total Public Shareholding (B) = (B)(1)+(B)(2)</b>	<b>1479253089</b>	<b>2911601</b>	<b>1482164690</b>	<b>35.08</b>	<b>1479312421</b>	<b>2852269</b>	<b>1482164690</b>	<b>35.08</b>	<b>0</b>
<b>C. Shares held by Custodians and against which Depository Receipts have been issued</b>	-	-	-	-	-	-	-	-	-
<b>GRAND TOTAL (A)+(B)+(C)</b>	<b>4222407399</b>	<b>2911601</b>	<b>4225319000</b>	<b>100.00</b>	<b>4222466731</b>	<b>2852269</b>	<b>4225319000</b>	<b>100.00</b>	<b>0</b>

**(II) SHAREHOLDING OF PROMOTERS**

Sl. No	Shareholder's Name	Shareholding at the beginning of the year				Shareholding at the end of the year			
		No. of Shares	% of total Shares of the company	% of Shares Pledge/ encumbered to total shares	No. of Shares	% of total Shares of the company	% of Shares Pledge/ encumbered to total shares	% change in shareholding during the year	
1	Vedanta Limited	2743154310	64.92	0	2743154310	64.92	0	0	0
	<b>Total</b>	<b>2743154310</b>	<b>64.92</b>	<b>0</b>	<b>2743154310</b>	<b>64.92</b>	<b>0</b>	<b>0</b>	<b>0</b>

**(III) CHANGE IN PROMOTERS' SHAREHOLDING (PLEASE SPECIFY, IF THERE IS NO CHANGE)**

Sl. No	Particulars	Shareholding at the beginning of the year		Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	No. of shares	% of total shares of the company
1	At the beginning of the year	2743154310	64.92	2743154310	64.92
2	Date wise Increase/Decrease in Promoters Shareholding during the year specifying the reasons for increase /decrease (e.g. allotment/ transfer/bonus/sweat equity etc.)	-No Change-	-No Change-	-No Change-	-No Change-
3	At the end of the year	2743154310	64.92	2743154310	64.92

**(IV) SHAREHOLDING PATTERN OF TOP TEN SHAREHOLDERS (OTHER THAN DIRECTORS, PROMOTERS AND HOLDERS OF GDRS AND ADRS):**

Sl. No	For Each of the Top 10 Shareholder's	Shareholding at the beginning of the year	
		No. of shares	% of total shares of the company
<b>At the beginning of the year (01.04.2017)</b>			
1	PRESIDENT OF INDIA	1247950590	29.54
2	LIFE INSURANCE CORPORATION OF INDIA	8912724	0.21
3	JANUS OVERSEAS FUND	8149485	0.19
4	GENERAL INSURANCE CORPORATION OF INDIA	7400000	0.18
5	HDFC STANDARD LIFE INSURANCE COMPANY LIMITED	7254549	0.17
6	GOLDMAN SACHS INDIA LIMITED	5717222	0.14
7	GOLDMAN SACHS FUNDS-GOLDMAN SACHS GROWTH & EMERGING	4324192	0.10
8	FIDELITY INVESTMENT TRUST-FIDELITY EMERGING MARKET	4292323	0.10
9	VANGUARD EMERGING MARKETS STOCK INDEX FUND, ASERIE	4232561	0.10
10	SWISS FINANCE CORPORATION (MAURITIUS) LIMITED	4175460	0.10
<b>Net Increase/Decrease in shareholding during the year specifying the reasons for increase /decrease (e.g. allotment/ transfer/bonus/sweat equity etc.) (31.03.2018)</b>			
1	LIFE INSURANCE CORPORATION OF INDIA	7957301	0.19
2	GENERAL INSURANCE CORPORATION OF INDIA	(-) 1600000	(-) 0.04
3	HDFC STANDARD LIFE INSURANCE COMPANY LIMITED	(-) 2790599	(-) 0.07
4	GOLDMAN SACHS FUNDS-GOLDMAN SACHS GROWTH & EMERGING MARKETS BROAD EQUITY PORTFOLIO	434860	0.01
5	FIDELITY INVESTMENT TRUST-FIDELITY EMERGING MARKET	(-) 4292323	(-) 0.10
6	VANGUARD EMERGING MARKETS STOCK INDEX FUND, A SERIES OF VANGUARD INTERNATIONAL EQUITY INDEX FUNDS	105532	0
7	SWISS FINANCE CORPORATION (MAURITIUS) LIMITED	(-) 4175460	(-) 0.10
8	INDIA CAPITAL FUND LIMITED (opening balance 3670000)	380000	0.01
9	INDIA OPPORTUNITIES III PTE. LIMITED	8024214	0.19
Change in holding is due to purchase/ sale of shares			

Sl. No	For Each of the Top 10 Shareholder's	Shareholding at the beginning of the year	
		No. of shares	% of total shares of the company
	<b>At the end of the year (or on the date of separation, if separated during the year) (31.03.2018)</b>		
1	PRESIDENT OF INDIA	1247950590	29.54
2	LIFE INSURANCE CORPORATION OF INDIA	16870025	0.40
3	JANUS OVERSEAS FUND	8149485	0.19
4	INDIA OPPORTUNITIES III PTE. LIMITED	8024214	0.19
5	GENERAL INSURANCE CORPORATION OF INDIA	5800000	0.14
6	GOLDMAN SACHS INDIA LIMITED	5717222	0.14
7	GOLDMAN SACHS FUNDS-GOLDMAN SACHS GROWTH & EMERGING MARKETS BROAD EQUITY PORTFOLIO	4759052	0.11
8	HDFC STANDARD LIFE INSURANCE COMPANY LIMITED	4463950	0.11
9	VANGUARD EMERGING MARKETS STOCK INDEX FUND, A SERIES OF VANGUARD INTERNATIONAL EQUITY INDEX FUNDS	4338093	0.10
10	INDIA CAPITAL FUND LIMITED	4050000	0.10

**(V) SHAREHOLDING OF DIRECTORS AND KEY MANAGERIAL PERSONNEL:**

Sl. No	For Each of the Directors and KMP	Shareholding at the beginning of the year		Cumulative Shareholding during the year	
		No. of shares	% of total shares of the company	No. of shares	% of total shares of the company
(A)	Mr. Arun L. Todarwal, Director	1000	-	-	-
	At the beginning of the year (01.04.2017)				
	Purchase during the year	500	-	1500	-
	At the end of the year (31.03.2018)	-	-	1500	-
(B)	Rajendra Pandwal, Company Secretary	106000	0.0025	-	-
	At the beginning of the year (01.04.2017)				
	Sale during the year	81000	0.0020	25000	0.0005
	At the end of the year (31.03.2018)	-	-	25000	0.0005



**V. INDEBTEDNESS****INDEBTEDNESS OF THE COMPANY INCLUDING INTEREST OUTSTANDING/ACCRUED BUT NOT DUE FOR PAYMENT**

(₹ in Crore)

	Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
Indebtedness at the beginning of the financial year (01.04.2017)	0	8000	0	8000
i) Principal Amount				
ii) Interest due but not paid				
iii) Interest accrued but not due				
<b>Total (i+ii+iii)</b>	<b>0</b>	<b>8000</b>	<b>0</b>	<b>8000</b>
Change in Indebtedness during the financial year				
• Addition	0	12450	0	12450
• Reduction	0	20450	0	20450
Net Change	0	(-) 8000	0	(-) 8000
Indebtedness at the end of the financial year (31.03.2018)	0	0	0	0
i) Principal Amount				
ii) Interest due but not paid				
iii) Interest accrued but not due				
<b>Total (i+ii+iii)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

- Note: 1. Interest is paid upfront on CP, hence nil interest due but not paid and nil interest accrued but not due.  
2. Principal amount of CP is shown and not the CP issue proceeds, hence not matching with Balance Sheet numbers.

**VI. REMUNERATION OF DIRECTORS AND KEY MANAGERIAL PERSONNEL****A. REMUNERATION TO MANAGING DIRECTOR, WHOLE-TIME DIRECTORS AND/OR MANAGER:**

Sl. No	Particulars of Remuneration	Name of MD/ WTD/ Manager	Total Amount (₹)
		<b>Mr. Sunil Duggal</b>	
1	Gross salary (a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961 (b) Value of perquisites u/s 17(2) Income-tax Act, 1961 (c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961	4,26,51,813	4,26,51,813
2	Stock Option	--	-
3	Sweat Equity	--	-
4	Commission - as % of profit - Others, specify	--	-
5	Others, please specify (ESOP of ultimate Holding Co.)	98,92,058	98,92,058
	<b>Total (A)</b>	<b>5,25,43,871</b>	<b>5,25,43,871</b>
	Ceiling as per the Act	10% of Profit after tax i.e. ₹ 928 Crore	

**B. REMUNERATION TO OTHER DIRECTORS:**

Sl. No	Particulars of Remuneration	Name of Directors			Total Amount (₹)
		Mr. A. R. Narayanaswamy	Mr. Arun L Todarwal	Mr. Sudhir Kumar	
1	Independent Directors				
	• Fee for attending board / committee meetings	5,50,000	4,25,000	3,25,000	13,00,000
	• Commission	10,00,000	10,00,000	10,00,000	30,00,000
	• Others, please specify	-	-	-	-
	<b>Total (1)</b>	<b>15,50,000</b>	<b>14,25,000</b>	<b>13,25,000</b>	<b>43,00,000</b>
2	Other Non-Executive Directors				
	• Fee for attending board / committee meetings	2,50,000	75,000		3,25,000
	• Commission	10,00,000	20,00,000		30,00,000
	• Others, please specify	-	-		-
	<b>Total (2)</b>	<b>12,50,000</b>	<b>20,75,000</b>		<b>33,25,000</b>
	<b>Total (B)=(1+2)</b>	<b>28,00,000</b>	<b>35,00,000</b>	<b>13,25,000</b>	<b>76,25,000</b>
	Overall Ceiling as per the Act	1% of Profit after tax i.e. ₹ 92.8 Crore			

**C. REMUNERATION TO KEY MANAGERIAL PERSONNEL OTHER THAN MD/MANAGER/WTD**

Sl. No	Particulars of Remuneration	KEY MANAGERIAL PERSONNEL		
		Company Secretary Mr. R Pandwal	Chief Financial Officer Mr. Amitabh Gupta	Total
1	Gross salary			
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	91,10,884	3,38,03,284	4,29,14,168
	(b) Value of perquisites u/s 17(2) of the Income-tax Act, 1961			
	(c) Profits in lieu of salary under section 17(3) of the Income-tax Act, 1961	-	-	-
2	Stock Option	-	-	-
3	Sweat Equity	-	-	-
4	Commission			
	- as % of profit	-	-	-
	- Others, specify...	-	-	-
5	Others, please specify (ESOP of ultimate Holding Co)	27,40,168	76,22,699	1,03,62,867
	<b>Total</b>	<b>1,18,51,052</b>	<b>4,14,25,983</b>	<b>5,32,77,035</b>

**VII. PENALTIES / PUNISHMENT/ COMPOUNDING OF OFFENCES:**

Type	Section of The Companies Act	Brief Description	Details of Penalty / Punishment/ Compounding fees imposed	Authority [RD / NCLT / COURT]	Appeal made, if any (give details)
<b>A. COMPANY</b>					
Penalty					
Punishment					
Compounding					
<b>B. DIRECTORS</b>					
Penalty					
Punishment					
Compounding					
<b>C. OTHER OFFICERS IN DEFAULT</b>					
Penalty					
Punishment					
Compounding					

NIL



# ANNEXURE 4

## I) DISCLOSURE ON REMUNERATION OF MANAGERIAL PERSONNEL

- (i) The ratio of the remuneration of each Director to the median remuneration of the employees of the Company for the financial year:

Name of Director	Mr. Sunil Duggal
Mean	1:36
Median	1:57

- (ii) The percentage increase in remuneration of each Director, Chief Financial Officer, Chief Executive Officer, Company Secretary or Manager, if any, in the financial year:

Name	Annual Increment (%)
Mr. Sunil Duggal	32
Mr. Amitabh Gupta	33
Mr. R Pandwal	37

- (iii) The percentage increase in the median remuneration of employees in the financial year: Mean 19%, Median 12.8%
- (iv) The number of permanent employees on the rolls of Company: 4,397 (including 22 expats and retainers)
- (v) The explanation on the relationship between average increase in remuneration and Company performance: During the year the Company's profit after tax has increased by 11.54%.
- (vi) Comparison of the remuneration of the Key Managerial Personnel against the performance of the Company: Remuneration of the KMPs as % of the PAT for 2017-18 is 0.11%. The Company's PAT during the year has increased in absolute terms by ₹ 960 Crore.
- (vii) Variation in the market capitalisation of the Company, price earnings ratio as at the closing date of the current financial year and previous financial year and percentage increase over decrease in the market quotations of the shares of the Company in comparison to the rate at which the Company came out with the last public offer in case of listed companies and in case of unlisted companies the variations in the net worth of the Company as at the close of the current financial year and previous financial year:

Date	Market Price in ₹	EPS (₹)	P/E ratio	Market Capitalisation, ₹ Crore	% Change
March 31, 2017	288.85	19.68	14.68	1,22,048	
March 31, 2018	300.95	21.95	13.71	1,27,161	4.19

Percentage increase over the last public offer price is not relevant as there has never been any public offer by the Company.

- (viii) Average percentile increase already made in the salaries of employees other than the managerial personnel in the last financial year and its comparison with the percentile increase in the managerial remuneration and justification thereof and point out if there are any exceptional circumstances for increase in the managerial remuneration:
- Average increase in the remuneration of all employees excluding KMPs: 19%
  - Average increase in the remuneration of KMPs: 33%
  - Justification: KMP salary increases are decided based on the Company performance, individual performance, inflation, prevailing industry trends and benchmarks.
- (ix) Comparison of remuneration of each of the Key Managerial Personnel against the performance of the Company; Each KMP is granted salary based on his qualification, experience, nature of job, industry benchmark, earlier salary and many other factors, comparison of one against the other is not feasible. Performance of the Company has been quite satisfactory this year.

- (x) The key parameters for any variable component of remuneration availed by the Directors: Only Whole-time Directors are given variable component, which is benchmarked against Company performance.
- (xi) The ratio of the remuneration of the highest paid Director to that of the employees who are not Directors but receive remuneration in excess of the highest paid Director during the year: Nil
- (xii) Affirmation that the remuneration is as per the remuneration policy of the Company: Yes

Note: For Director, only CEO & Whole-time Director, has been considered. All remuneration figures are for Executives only.

**II) INFORMATION AS PER RULE 5 (2) OF CHAPTER XIII, THE COMPANIES (APPOINTMENT AND REMUNERATION OF MANAGERIAL PERSONNEL) RULES, 2014. TOP TEN EMPLOYEES IN TERMS OF REMUNERATION DRAWN DURING THE YEAR.**

Name	Designation	Remuneration Received in ₹	Nature of employment (whether contractual or otherwise)	Qualification and experience	Date of commencement of employment in Company	Age	Last employment held by the employee
Sunil Duggal	Chief Executive Officer	52,543,871	Regular	BE - Electrical, 34 Years	16-Aug-10	56.0	Ambuja Cement
Amitabh Gupta	Chief Financial Officer	41,425,983	Regular	B Com, ICWA, CA, 30 Years	23-Nov-11	56.4	Moser Baer Solar
L. S. Shekhawat	COO - Mines	25,854,318	Regular	BE(MIN.), 1st MM Cert., 27 Years	20-Oct-90	50.6	NA
Akhilesh Shukla	Vice President - R&D	19,484,728	Regular	B.Tech. (Chemical), 34 Years	9-Apr-07	57.3	Rubamin Ltd.
Pankaj Kumar	COO - Smelters	18,100,950	Regular	B.Tech. (Hon.) (Mechanical), PGDM (Operations), 28 Years	1-Mar-17	49.0	Adani Group
Mahesh Kumar Todkar	Vice President - Smelting	17,960,323	Regular	BE - Mechanical, Dip in Mechanical Engg, PGDBM - Finance, 26 Years	6-Jul-13	48.3	Vedanta Ltd. Jharsuguda
Rajendra Prasad Dashora	Vice President - Mining	17,156,926	Regular	BE - Mining, 1 <sup>st</sup> CLASS MM CERT., 29 Years	16-Jun-12	55.4	Jindal Saw Ltd
Praveen Kumar Sharma	Vice President - Mines	16,850,954	Regular	B.E. (Mining), 1 <sup>st</sup> class MM CERT, 25 Years	1-Jan-15	50.0	Konkola Copper, Zambia
Ramakrishnan Kasinathan	Chief Commercial Officer	16,842,956	Regular	BE - Civil; MBA - Finance, 25 Years	23-Sep-15	50.9	SKF India Ltd
V Jayaraman	Vice President - EOHS	16,586,127	Regular	BE (ECE), PG Dip. In Thermal Power Plant Engg, MBA, 20 Years	1-Jun-14	42.0	BALCO

# ANNEXURE 5

## ANNUAL REPORT ON THE CSR ACTIVITIES PURSUANT TO THE COMPANIES (CORPORATE SOCIAL RESPONSIBILITY POLICY) RULES 2014.

A brief outline of the Company's CSR policy, including overview of projects or programmes proposed to be undertaken and a reference to the web-link to the CSR policy and projects or programmes	Company's vision on CSR is to enhance the quality of life and the economic well being of communities around our operations. For detailed policy, please refer our website <a href="http://www.hzllindia.com">www.hzllindia.com</a> . For projects please refer to section on CSR under Sustainability (Business Overview section)
The composition of the CSR committee	Mr. A R Narayanaswamy - Chairman Ms. Sudhir Kumar Mr. Sunil Duggal
Average net profit of the Company for last three financial years	₹ 9,482 Crore (PBT, as prescribed)
Prescribed CSR Expenditure (two percent of the amount as in item 3 above)	₹ 189.65 Crore
Details of CSR spent during the financial year	
a) Total amount to be spent for the financial year	₹ 189.65 Crore
b) Amount Spent	₹ 92.18 Crore
c) Amount unspent, if any	₹ 97.47 Crore
d) Manner in which the amount spent during the financial year is detailed below	Refer next page
In case the Company has failed to spend the two percent of the average net profit of the last three financial years or any part thereof, the company shall provide the reason for not spending the amount in its Board report	We spent ₹ 92.18 Crore as CSR this year. This is a significant increase over last year's expenditure and we are continuing to scale up many of our programmes. Further, several new projects were launched this year, which are gradually ramping up. In addition to the above, the Company has also provided ₹ 660.24 Crore as contribution to District Mineral Foundation which will be utilised by the Government for the interest and benefit of persons and areas affected by mining related operations, which is also quasi CSR.
A responsibility statement of the CSR committee that the implementation and monitoring of CSR policy, is in compliance of CSR objectives and policy of the Company	Yes. The CSR Committee of the Company hereby confirms that the implementation and monitoring of CSR Policy, is in compliance with CSR Objectives and Policy of the Company.

**Sunil Duggal**

CEO and Whole-time Director

**A. R. Narayanaswamy**

Director & Chairman of CSR Committee

Place: Mumbai

Date: April 30, 2018



S. No.	CSR Project or Activity Identified	Sector in which the project is covered	Project or Programme		Amount Outlay ₹ in Lakhs (budget)	Amount Spent (₹ in Lakhs)			Cumulative Spend till reporting period (₹ in Lakhs)	Amount Spent, Direct or implementing agency	Name of Implementing Agency
			1. Local area or otherwise	2. Specify the district		Direct	Overheads	Total			
			Area	Name of District							
1	Vedanta Bal Chetna Anganwadi & Child care Project (KHUSHI Project)	Education	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara & Ajmer	1500	1577	0	1577	3,383	Implementing Agency	Seva mandir, Jatan Sanshan, CARE India, GSVS
2	Brownfield & Greenfield Nandghar	Education	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara & Ajmer	6800	543	0	543	543	Direct/Implementing Agency	Vedanta Foundation, HZL, Jatan, Seva Mandir, GSVS, Care India
3	Shiksha Sambal Project	Education	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	280	359	0	359	607	Implementing Agency	Vidya Bhawan
4	Rural education Program & Company run School	Education	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	839	776	0	776	5,583	Direct/Implementing Agency	HZL, Viklang Kalyan Samiti, Badhir bal kalyan samiti, SUMEDHA, CTAE..etc
5	Jeevan tarang Zinc ke sang	Education	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	200	95	0	95	95	Implementing Agency	NDS, National Handicapped Corp, Viklang Kalyan Samiti, Badhir Bal kalyan samiti, Badhit bal vikas samiti
6	Health, water & Sanitation including company run hospitals	Health, Water & Sanitation	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	1990	803	0	803	5,078	Direct/Implementing Agency	Ummati sansthan, Jan chetna gramini vikas sansthan ..etc
7	Hospital Upgradation	Health, Water & Sanitation	Local area	Udaipur	30	28	0	28	636	Direct	HZL
8	Vocational training for youth (YUVANTARAN Project)	Sustainable Livelihood	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	1000	790	0	790	1,227	Implementing Agency	SCMS & IISD
9	Agriculture Project (SAMADHAN Project)	Sustainable Livelihood	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	500	409	0	409	750	Implementing Agency	BAIF Institute of Sustainable Livelihood Development
10	Animal Husbandary project	Sustainable Livelihood	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara	13	0	0	0	284	Direct/Implementing Agency	BAIF, Govt. Animal Husbandary dept.

S. No.	CSR Project or Activity Identified	Sector in which the project is covered	Project or Programme		Amount Outlay ₹ in Lakhs (budget)	Amount Spent (₹ in Lakhs)			Cumulative Spend till reporting period (₹ in Lakhs)	Amount Spent, Direct or implementing agency	Name of Implementing Agency
			1. Local area or otherwise	2. Specify the district		Direct	Overheads	Total			
11	Women Empowerment (SAKHI Project)	Women Empowerment	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara	521	357	0	357	756	Implementing Agency	Saheli Samiti & Manjari Foundation
12	Rural Infrastructure	Infrastructure Projects	Local/ Otherwise	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	1078	789	0	789	6,416	Direct/ Implementing Agency	HZL
13	Football Academy	Sports & Culture	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	1500	870	0	870	870	Implementing partner	The Football Link
14	Ajmer Dargah - Swatch bharat Abhiyaan	Sports & Culture	Local area	Ajmer	990	95	0	95	95	Implementing partner	Abhimanyu Dalal Architects
15	Sports & Culture	Sports & Culture	Local/ Otherwise	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	110	350	0	350	1,647	Direct/ Implementing Agency	HZL/Societies/Trusts
16	Social Forestry/ Environment	Environment	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	183	148	0	148	509	Direct	HZL
17	Social Audit, Evaluation, CSR Communications, etc	Programme evaluation	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara, Ajmer and Ultrahand	55	33	0	33	87	Direct	HZL
18	STP - Maintenance and depreciation	Health, Water & Sanitation	Local area	Udaipur	800	821	0	821	2,736	Direct	HZL
19	Program Management	Programme & Admin	Local area	Udaipur, Rajsamand, Chittorgarh, Bhilwara and Ajmer	576	0	375	375	1,488	Direct	HZL
20	Miscellaneous initiatives		Local area	Udaipur	0	0	0	0	1,276	Direct	HZL
	<b>Total CSR</b>				<b>18,964</b>	<b>8,843</b>	<b>375</b>	<b>9,218</b>	<b>34,066</b>		

# CORPORATE GOVERNANCE

## CODE OF GOVERNANCE

Transparency and accountability are the two basic tenets of Corporate Governance. Responsible corporate conduct is integral to the way we do our business. Our actions are governed by our values and principles, which are reinforced at all levels within the Company. We are committed to doing things the right way which means taking business decisions and acting in a way that is ethical and is in compliance with applicable legislation. Company's Business Ethics & Code of Conduct is an extension of our values and reflects our continued commitment to ethical business practices across our operations. We acknowledge our individual and collective responsibilities to manage our business activities with integrity. Our Business Ethics & Code of Conduct inspires us to set standards which not only meet applicable legislation but go beyond in many areas of our functioning. To succeed, we believe, requires highest standards of corporate behaviour towards everyone we work with, the communities we touch and the environment on which we have an impact. This is our road to consistent, competitive, profitable and responsible growth and creating long term value for all our stakeholders. All Directors and employees are bound by Code of Conduct that sets out the fundamental standards to be followed in all actions carried out on behalf of the Company.

In India, Corporate Governance standards for listed companies are regulated by the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (SEBI, (LODR)). The Company has adopted best practices mandated in SEBI (LODR). This chapter, along with those in the Business Review Section and Additional Shareholder Information, reports the Company's compliance with SEBI (LODR).

## BOARD OF DIRECTORS

The Board is at the core of our Corporate Governance Practice. This belief is reflected in our governance practices,

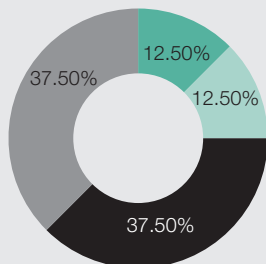
under which we strive to maintain an effective, informed and independent Board. We keep our governance practices under continuous review and benchmark ourselves to best practices.

As trustees, the Board has a fiduciary responsibility towards all the shareholders and ensures that the Company has clear goals aligned to shareholder value and its growth. The Board sets strategic goals and seeks accountability for their fulfillment. The Board also provides direction and exercises appropriate control to ensure that the Company is managed in a manner that fulfills all stakeholders' aspirations and societal expectations.

### (I) COMPOSITION OF THE BOARD

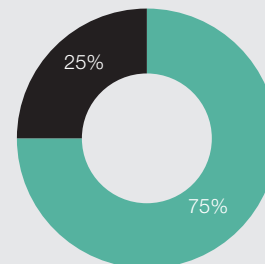
The composition of Board is an appropriate combination of Executive and Non-Executive Directors with right element of independence. As on March 31, 2018, the Company's Board comprised of eight Directors, two of whom are nominee Directors from Government of India including two women Directors, one executive Director and two promoter Directors. In addition, there are three independent Directors on the Board. In terms of clause 17(1)(b) of SEBI (LODR), the Company is required to have one half of total Directors as independent Directors; however, at the year end the Company is having one Independent Director short. The non-executive Directors are appointed or re-appointed based on the recommendation of the Nomination & Remuneration Committee, which considers their overall experience, expertise and industry knowledge. One third of the non-executive Directors of the Company other than independent Directors, are liable to retire by rotation every year and are eligible for reappointment, subject to approval by the shareholders at the Annual general meeting. Independent directors had confirmed their independence. Average tenure of Board Members is more than 6 years.

SIZE AND COMPOSITION OF THE BOARD



- Non-executive and Non-independent Chairman
- Executive and Whole-time Directors
- Non-executive and Non-independent Directors
- Independent Directors

SIZE AND COMPOSITION OF THE BOARD



- Men
- Women



**(II) NUMBER OF BOARD MEETINGS**

The Board of Directors met five times during the financial year, on April 20, July 20, October 23 in 2017 and on January 18 and March 16 in 2018. The maximum time gap between any two meetings was less than 120 days and at least one meeting was held in each calendar quarter. The agenda for each meeting is prepared well in advance, along with explanatory notes and distributed to all Directors.

**(III) ATTENDANCE AND DIRECTORSHIPS HELD**

As mandated by the SEBI (LODR), none of the Directors are members of more than ten board-level committees

nor are they chairman of more than five committees in which they are members. Further all the Directors have confirmed that they do not serve as an independent director in more than seven listed companies or where they are whole-time directors in any listed company, then they do not serve as independent director in more than three listed companies.

The names and categories of the Directors on the Board, their attendance at Board meeting during the year and at last Annual General Meeting, as also the number of Directorships and Committee memberships held by them in other Companies are shown in Table 1

**TABLE 1: COMPOSITION OF THE BOARD OF DIRECTORS**

Name of Director	Relationship with Other Directors	Category	No. of Meetings Held	No. of Meetings Attended	Whether Attended Last AGM	No. of Outside Directorships of Public Companies	No. of Outside Committee Memberships#	No. of Outside Committee Chairmanships#
Mr. Agnivesh Agarwal, Chairman	Relative of Mr. Navin Agarwal	NED	5	1	No	1@	-	-
Mr. Navin Agarwal	Relative of Mr. Agnivesh Agarwal	NED	5	5	No	2@	-	-
Mr. A. R. Narayanaswamy	None	ID& NED	5	5	Yes	8	6	1
Mr. Arun L. Tadarwal^	None	ID & NED	5	5	Yes	8	4	5
Mr. Sunil Duggal	None	ED	5	5	Yes	2	-	-
Mr. Sudhir Kumar	None	ID & NED	5	5	Yes	-	-	-
Ms. Reena Sinha Puri\$	None	NED	5	4	No	3	-	-
Ms. Farida M. Naik\$	None	NED	5	5	No	-	-	-

Notes:

\$ Nominees of Government of India

# Only Audit Committee and Stakeholder Relationship Committee considered as per SEBI (LODR)

@ Excludes foreign companies: Mr. Agnivesh Agarwal – 3, Mr. Navin Agarwal – 2

ID Independent Director, NED: Non-executive Director, ED: Executive Director

^ Holds 1500 shares in his name and 700 shares through Ms. Mala Tadarwal

**(IV) INFORMATION SUPPLIED TO THE BOARD**

The Board has complete access to all information of the Company and has been regularly provided advanced detailed information as a part of the agenda papers or is tabled therein. In addition, detailed quarterly performance report by the CEO is presented in the quarterly Board meeting, encompassing all facets of the Company's operations during the quarter, including update of key projects, outlook and matters relating to environment, health & safety, corporate social responsibility etc. The following information is provided to the Board as a part of the agenda papers:

- Annual and Quarterly financial statements for the Company and the Accounting Policy
- Minutes of the meetings of the Audit Committee and other Committees of the Board
- Annual business plan

- Information on recruitment and remuneration of senior officers just below the level of Board, including the appointment or removal of Chief Financial Officer and Company Secretary, whenever required
- Expansion projects and its status monitoring
- Materially important notices of show cause, demand, prosecution and penalty, if any
- Fatal or serious accidents, injuries or any material environmental problems, if any
- Any material default in financial obligations to and by the Company, or substantial non-payment for goods sold by the Company, if any
- Any issue involving possible public or product liability claims of substantial nature, including any judgement or order which may have passed

- strictures on the conduct of the Company or taken an adverse view regarding another enterprise that can have negative implications on the Company
- Details of any joint venture or significant collaboration agreement
  - Transactions that involve substantial payment towards goodwill, brand equity or intellectual property, if any
  - Significant labour problems and their proposed solutions, whenever necessary
  - Any significant development in human resources / industrial relations including long-term wage agreement, major voluntary retirement scheme, etc.
  - Sale of material nature like equity investments and fixed assets, which is not in the normal course of business, if any
  - Quarterly details of foreign exchange exposures and the steps taken by the management to limit the risks of adverse exchange rate movement, if material
  - Quarterly disclosure of all the investments made
  - Material non-compliance of any regulatory, statutory nature or listing requirements and shareholders service, such as non-payment of dividend, delay in share transfer and others, if any
  - Quarterly review of compliance status under various laws applicable to the Company
  - Corporate Social Responsibility activities
  - Substantial non-payment of goods sold by Company except disputes
  - Related Party Transactions, if they are not at arm's length or not in the ordinary course of business
  - Near term outlook
  - All other matters required to be placed before the Board for its review or information or approval under the statutes.

#### (V) REMUNERATION TO DIRECTORS

Non-executive Directors except Government Directors in the employment of the Government are paid a remuneration in the form of commission and a fixed sitting fee for each meeting, as approved by the Board and within statutory limits. The remuneration paid to Mr. Sunil Duggal, CEO & Whole-time Director is as per the approval granted by the Board and the shareholders. For FY 2017-18, the total remuneration is as shown in Table 2A and Table 2B. Payment of commission to Non-executive directors and independent directors has been approved by the shareholders up to the limit specified under the Companies Act, subject to the annual amount approved by the Board.

**TABLE 2 A: SITTING FEE AND COMMISSION OF NON-EXECUTIVE DIRECTOR FOR FY 2017-18 (IN ₹)**

Name of Director	Category	Sitting fees	Commission
Mr. Agnivesh Agarwal, Chairman	Non-Executive	75,000	20,00,000
Mr. Navin Agarwal	Non-Executive	2,50,000	10,00,000
Mr. A.R. Narayanaswamy	Independent	5,50,000	10,00,000
Mr. Arun L. Todarwal	Independent	4,25,000	10,00,000
Mr. Sudhir Kumar	Independent	3,25,000	10,00,000

**TABLE 2 B: REMUNERATION PAID TO EXECUTIVE DIRECTOR FOR FY 2017-18 (IN ₹)**

Name of Director	Category	Salary perquisites & other allowances	Stock option of ultimate holding Company	Total
Mr. Sunil Duggal	CEO & Whole-time Director	4,26,51,813	98,92,058	5,25,43,871

Non-executive Directors, other than Mr. Arun L. Todarwal, do not hold any shares of the Company and they have no pecuniary relationships or transactions vis-à-vis the Company, except as mentioned above. The Company has not granted any stock options to any of its Directors.

During FY 2017-18, the Company did not advance any loan or guarantee to any of its Directors.

As per the requirement of SEBI (LODR), a separate meeting of the Independent Directors was held on February 28, 2018.

#### (VI) FAMILIARISATION PROGRAMME FOR DIRECTORS

The Board members are provided with necessary documents, reports, internal policies and site visits to enable them to familiarise themselves with the

Company's operations, its procedures and practices. Periodic presentations are made at the Board and Board Committee Meetings, on business and performance updates of the Company, global business environment, business strategy and business risks. Details of the familiarisation programme are available on <http://hzlindia.com/common/images/Familiarisation-program-for-ind-directors-2017-18.pdf>

#### (VII) DIRECTOR RETIRING BY ROTATION

As per law, two-third of non-executive and non-independent Directors should retire by rotation. One-third of these Directors are required to retire every year and if eligible, offer themselves for re-appointment. Mr. Agnivesh Agarwal would retire in upcoming AGM and being eligible, has offered himself for re-appointment. A brief profile of Mr. Agnivesh Agarwal is as follows.

#### Mr. Agnivesh Agarwal

Chairman

Mr. Agarwal was appointed on the Board with effect from November 15, 2005. He is an eminent industrialist with rich knowledge of business operations and extensive experience in efficiently managing large projects, business restructuring and strategic planning.

Over the years, he has successfully developed excellent commercial acumen.

Mr. Agarwal is also the Director of Sterlite Iron and Steel Company Ltd., Primex Healthcare & Research Ltd., Caitlyn India Pvt. Ltd., Vedanta Medical Research Foundation, Agarwal Galvanising Pvt. Ltd., Fujairah Gold FZC and Caitlyn Ltd.

Mr. Agarwal is a graduate in commerce from Sydhenam College, University of Mumbai.

#### (VIII) COMMITTEES OF THE BOARD

The Company has five Board-level committees - Audit Committee, Stakeholders Relationship Committee, Corporate Social Responsibility Committee, Nomination & Remuneration Committee and Risk Management Committee.

All decisions pertaining to the constitution of Committees, appointment of members and fixing of terms of service for Committee members are taken by the Board of Directors. Details on the role and composition of these Committees, including the number of meetings held during the financial year and the related attendance, are provided below:

#### BOARD AND COMMITTEE COMPOSITION

Name of Director	Board	Audit Committee	Stakeholder Relationship Committee	Nomination and Remuneration Committee	Corporate Social Responsibility Committee	Risk Management Committee
Mr. Agnivesh Agarwal	Chairman			Member		
Mr. Navin Agarwal	Member					
Mr. A.R. Narayanaswamy	Member	Chairman	Chairman	Member	Chairman	Chairman
Mr. Arun L. Todarwal	Member	Member		Chairman		
Mr. Sunil Duggal	Member		Member		Member	Member
Mr. Sudhir Kumar	Member				Member	
Ms. Reena Sinha Puri	Member	Member				
Ms. Farida M. Naik	Member		Member			
Total no. of members	8	3	3	3	3	2

#### a) Audit Committee

The Audit Committee of the Board, inter alia, provides reassurance to the Board on the existence of an effective internal control environment that ensures:

- efficiency and effectiveness of operations;
- safeguarding of assets and adequacy of provisions for all liabilities;
- reliability of financial and other management information and adequacy of disclosures;
- compliance with all relevant statutes.

Mr. A.R. Narayanaswamy is the Chairman of the Audit Committee. Details of meeting held and attendance record is given in Table 3.

The time gap between any two meetings was less than 120 days and at least one meeting was held in each calendar quarter. The Committee met four times in the financial year under review on April 20, July 20 and October 23 in 2017 and on January 18, 2018. The details of the Audit Committee are given in Table 3.

**TABLE 3: ATTENDANCE RECORD OF AUDIT COMMITTEE MEETINGS**

Name of the Member	Position	Status	No. of Meetings held	No. of Meetings Attended	Sitting fees (₹)
Mr. A. R. Narayanaswamy	Chairman	ID & NED	4	4	1,00,000
Mr. Arun L. Todarwal	Member	ID & NED	4	4	1,00,000
Ms. Reena Sinha Puri*	Member	NED	3	2	-

\* Appointed as member w.e.f. April 20, 2017.

The Chief Financial Officer, the representative of the Statutory Auditors (S.R. Batliboi & Co. LLP), Internal Auditors (KPMG) and Head of Management Assurance Cell are invitees to the Audit Committee meetings. The Company Secretary is the Secretary to the Committee.

Mr. A. R. Narayanaswamy is a Chartered Accountant and Chairman of the Audit Committee and all the members of the Audit Committee are well versed with financial management. The quorum for the meeting of the Audit Committee is two members. The Audit Committee functions in accordance with its constitution and charter, framed in compliance with SEBI (LODR).

The Role and functions of the Audit Committee include the following:

- Oversight of the Company's financial reporting process and the disclosure of its financial information to ensure that the financial statements are correct, sufficient and credible
- Recommending to the Board, the appointment, re-appointment and if required, the replacement or removal of the statutory auditor and the fixation of audit fees
- Approval of payment to statutory auditors for any other services rendered by them
- Reviewing with the management, the annual financial statements before submission to the Board for approval, with particular reference to:
  - matters required to be included in the Director's Responsibility Statement to be included in the Board's report in terms of section 134 of the Companies Act, 2013
  - changes, if any, in accounting policies and practices and reasons for the same
  - major accounting entries involving estimates based on the exercise of judgement by management
  - significant adjustments made in the financial statements arising out of audit findings, if any
- compliance with listing and other legal requirements relating to financial statements
- approval of related party transactions and their subsequent modifications, if any
- scrutiny of inter corporate loans and advances
- qualifications if any in the draft statutory auditor report
- Reviewing with the management, the quarterly financial statements before submission to the Board for approval
- Reviewing with the management, performance of statutory and internal auditors, their independence, effectiveness of audit process and adequacy of the internal financial control systems
- Reviewing the adequacy of internal audit plan
- Discussion with internal auditors on any significant findings and follow up thereof
- Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control system of a material nature and reporting the matter to the Board
- Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern
- To look into the reasons for substantial defaults in the payment to the shareholders (in case of non-payment of declared dividends) and creditors, if any
- Reviewing the functioning of the vigil and whistle blower mechanism
- Appointment of the Chief Financial Officer of the Company, as and when required



- Carrying out any other function, as is mentioned in the terms of reference of the Audit Committee
- Valuation of undertaking of the assets of the Company, wherever necessary

The Audit Committee is empowered pursuant to its terms of reference to:

- Investigate any activity within its terms of reference and to seek any information it requires from any employee
- Obtain legal or other independent professional advice and to secure the attendance of outsiders with relevant experience and expertise, when considered necessary

The Company has systems and procedures in place to ensure that the Audit Committee mandatorily reviews:

- Business overview including results of its operations and financial condition
- All related party transactions
- Management letters and letters of internal

control weaknesses issued by the statutory auditors

- Internal audit reports relating to internal control weaknesses and review of processes
- The appointment, removal and terms of remuneration of the Auditors.

During the year, all related party transactions were pre-approved by the Audit Committee and were at arm's length and in the ordinary course of business. There was no significant material transaction with any of the related parties of the Company for the year.

#### B) STAKEHOLDERS RELATIONSHIP COMMITTEE

Mr. A. R. Narayanaswamy is the Chairman of the Stakeholders Relationship Committee. The Committee met twice during the financial year under review on April 20 and October 23, 2017.

The primary function of the Committee is to address investor and stakeholders' complaints pertaining to transfers/transmission of shares, non-receipt of dividend and any other related matters as prescribed under section 178 of the Companies Act, 2013. The minutes of each of the Committee meetings are reviewed by the Board. The attendance details are mentioned in Table 4.

**TABLE 4: ATTENDANCE RECORD OF STAKEHOLDER RELATIONSHIP COMMITTEE MEETINGS**

Name of the Member	Position	Status	No. of Meetings held	No. of Meetings Attended	Sitting fees (₹)
Mr. A. R. Narayanaswamy	Chairman	ID & NED	2	2	50,000
Mr. Sunil Duggal	Member	ED	2	2	-
Ms. Farida M. Naik*	Member	NED	1	1	-

\* Appointed as member w.e.f. April 20, 2017.

The matters, if any, requiring Board's attention are informed to the Board by the Committee Chairman. Mr. R. Pandwal, Company secretary is the compliance officer of the Company.

Details of queries and grievances received and addressed by the Company during FY 2017-18 is given in Table 5.

**TABLE 5: NATURE OF COMPLAINTS RECEIVED AND ATTENDED TO DURING FY 2017-18**

1.	Number of complaints received from the investors comprising non-receipt of dividend warrants, non-receipt of securities sent for transfer and transmission, complaints received from SEBI/Registrar of Companies/Bombay Stock Exchange/National Stock Exchange / SCORE and so on	26
2.	Number of complaints resolved	26
3.	Number of complaints not resolved to the satisfaction of the investors as on March 31, 2018	0
4.	Complaints pending as on March 31, 2018	0
5.	Number of Share transfers pending for approval, as on March 31, 2018	0

The Board has delegated the power of approving physical transfer and transmission of shares to the Share Transfer Committee consisting of CEO & WTD, CFO and Company Secretary.

**C) CORPORATE SOCIAL RESPONSIBILITY (CSR) COMMITTEE**

The Corporate Social Responsibility Committee as on March 31, 2018 consisted of three members. The Committee met twice during the financial year under review on April 18, 2017 and on October 23, 2017. Mr. A.R. Narayanaswamy is the Chairman of the Committee, while Mr. Sunil Duggal and Mr. Sudhir Kumar are the members.

The primary function of the Committee is to monitor the CSR function of the Company in furtherance to Company's CSR Vision & Mission. The Committee is responsible for framing the CSR policy of Company and tracks implementation of key CSR projects approved by it during the financial year.

In this financial year, the Company has spent ₹ 92.18 Crore on CSR activities.

**D) NOMINATION & REMUNERATION COMMITTEE**

The Nomination & Remuneration Committee as on March 31, 2018 consisted of three members. The Committee met twice during the financial year under review on July 20, 2017 and March 8, 2018. The primary function of the Committee is to recommend to the Board the appointment or reappointment of Directors, remuneration of Directors and Key Managerial Personnel (KMPs), formulate criteria for evaluation of Independent Directors, Board diversity, identification and selection of persons who could be appointed as Independent Directors etc.

**TABLE 6: ATTENDANCE RECORD OF CSR COMMITTEE MEETINGS**

Name of the Member	Position	Status	No. of Meetings Held	No. of Meetings Attended	Sitting fees (₹)
Mr. A R Narayanaswamy	Chairman	ID & NED	2	2	50,000
Mr. Sunil Duggal	Member	ED	2	2	-
Mr. Sudhir Kumar	Member	ID & NED	2	2	50,000

**TABLE 7: ATTENDANCE RECORD OF NOMINATION AND REMUNERATION COMMITTEE MEETINGS**

Name of the Member	Position	Status	No. of Meetings Held	No. of Meetings Attended	Sitting fees (₹)
Mr. Arun L. Todarwal	Chairman	ID & NED	2	2	50,000
Mr. A R Narayanaswamy	Member	ID & NED	2	2	50,000
Mr. Agnivesh Agarwal	Member	NED	2	1	25,000

As per the requirement of Companies Act, 2013 and SEBI (LODR), the Nomination & Remuneration Committee has carried out a performance review of the individual Directors on the following parameters:

- The size and composition (executive, non-executive, independent members and their background in terms of knowledge, skills and experience) of the Board is appropriate
- The Board conducts itself in such a manner that it is seen to be sensitive to the interests of all stakeholders (including minority shareholders) and it has adequate mechanism to communicate with them
- The Board is active in addressing matters of strategic concerns in its review of the Board agenda with the executive management
- The Board makes well-informed high quality decisions on the basis of full information and clear insight into Company's business
- The Board is effective in establishing a corporate environment that promotes timely

and effective disclosure, fiscal accountability, high ethical standards and compliance with applicable laws and regulations

- The Board meets frequently enough and for sufficient duration to enhance its effectiveness
- The Board meeting time is appropriately allocated between management presentation and Board discussion
- The Board has a good understanding of the Company's key drivers of performance and associated risks, threats and opportunities
- The Board devotes considerable amount of time in developing the business strategy and annual business plan
- The Board has clearly defined the mandates of its various Committees and effectively oversees their functioning
- The Board is effective in formulating and monitoring various financial and non-financial policies and plans

- The Board is effective in developing a corporate governance structure that allows and encourages the Board to fulfil its responsibilities
- The Board pays considerable attention to the quality of financial reporting process and internal financial controls and effectively oversees them
- The Board regularly follows up on its decisions to ensure that action is taken on all its decisions
- The Board gives effective advice and assistance for achieving the Company's mission and vision.
- Board Members performance is assessed through internal assessment

The Committee expressed its overall satisfaction on the performance of the individual Board members and the overall Board.

#### E) RISK MANAGEMENT COMMITTEE

The Risk Management Committee as on March 31, 2018 consisted of two members. The Committee met once during the financial year under review on March 6, 2018. Mr. A. R. Narayanaswamy is the Chairman of the

BSE Limited  
25<sup>th</sup> Floor, P. J. Towers,  
Dalal Street, Fort,  
Mumbai - 400 001

Committee and Mr. Sunil Duggal is the Member while, Mr. Amitabh Gupta, Mr. L. S. Shekhawat, Mr. Pankaj Kumar and Mr. Dilip Golani are invitees to the Committee. The primary function of the Committee is to review the major risks identified by the Management, along with its mitigation plan, monitoring and reviewing the Company's risk management plan and to apprise the Board on risk assessment and minimization procedures. Details of the Key risks, its mitigation plan etc. is given on page no 68 to 71 of this annual report.

#### SHAREHOLDERS MATTERS

##### (I) DIVIDEND

During the year, the Company has paid an interim dividend of 100% declared on October 23, 2017 and second interim dividend of 300% declared on March 16, 2018, aggregating 400% or ₹ 8.00 per share of face value of ₹ 2 each. Inclusive of the dividend distribution tax, the total payout was ₹ 4,068.38 Crore.

##### (II) LISTING

At present, the equity shares of the Company are listed on BSE Limited (BSE) and National Stock Exchange of India Limited (NSE). The annual listing fees for FY 2017-18 to BSE and NSE have been paid. The addresses of stock exchanges are as under:

National Stock Exchange of India Limited  
"Exchange Plaza", Bandra-Kurla Complex  
Bandra (East)  
Mumbai - 400 051

**TABLE 8: STOCK EXCHANGE CODES**

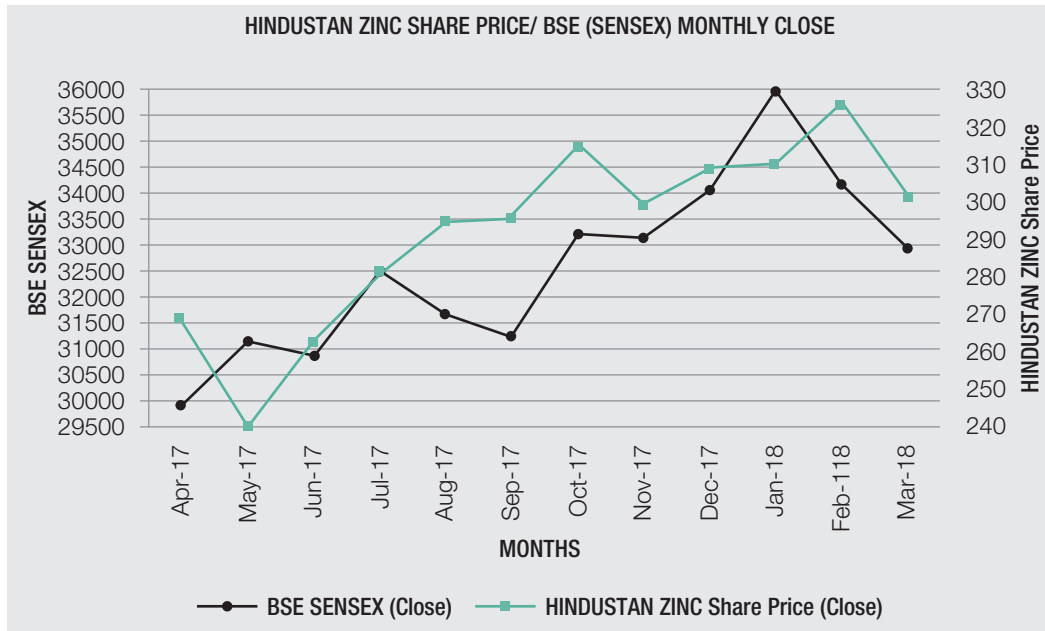
Name of the Stock Exchange	Stock Code	ISIN Code
National Stock Exchange of India Limited	HINDZINC	INE 267A01025
BSE Limited	500188	

#### (III) STOCK MARKET DATA

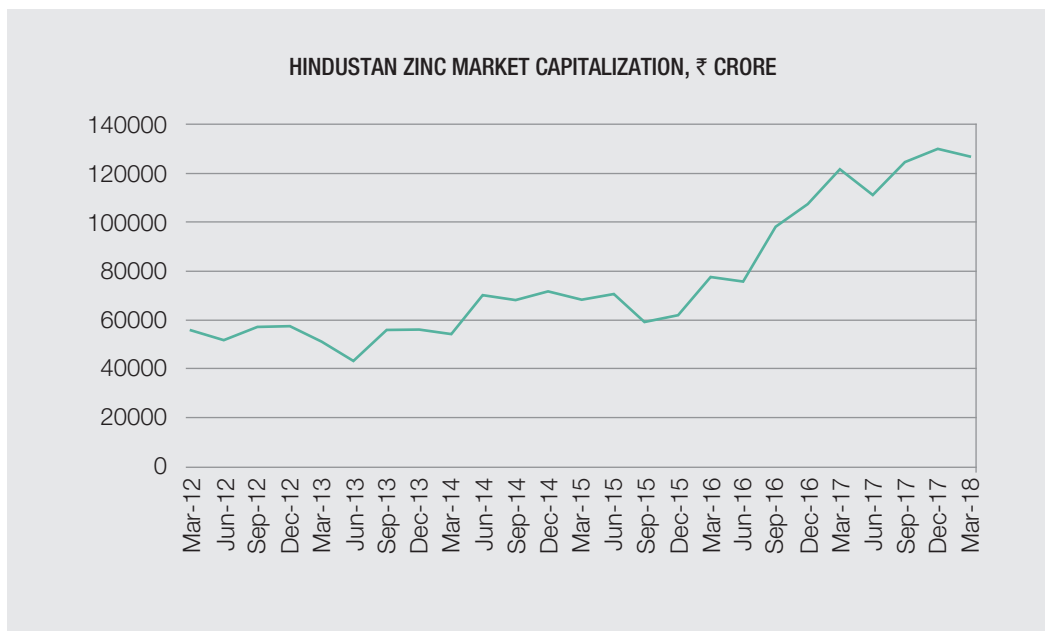
**TABLE 9: HIGH, LOWS AND VOLUMES OF THE COMPANY'S SHARES FOR FY 2017-18**

Month	BSE			NSE		
	High (₹)	Low (₹)	Volume (No. of Shares)	High (₹)	Low (₹)	Volume (No. of Shares)
Apr-17	294.20	266.10	4359664	294.25	265.50	41861433
May-17	271.70	226.75	6727227	271.75	226.85	53339733
Jun-17	265.90	230.75	3806198	266.00	230.55	45370326
Jul-17	286.70	263.10	3782205	285.95	263.10	44022710
Aug-17	300.35	268.00	2685448	305.30	267.50	43937511
Sep-17	313.60	286.00	2654635	314.00	286.05	32421097
Oct-17	330.60	300.00	2251689	331.00	299.85	33755247
Nov-17	328.00	293.40	2146721	328.35	294.50	27968587
Dec-17	314.00	281.40	1382561	314.00	281.25	22747475
Jan-18	329.40	289.05	2931320	328.80	289.60	38640821
Feb-18	339.55	275.10	5333468	340.20	275.05	58403129
Mar-18	330.20	296.45	3744880	330.30	296.35	58553770

CHART: SHARE PERFORMANCE VERSUS BSE SENSEX



MARKET CAPITALISATION PERFORMANCE FROM MARCH 31, 2012 TO MARCH 31, 2018 (₹ IN CRORE)





**(IV) DISTRIBUTION OF SHAREHOLDING**

Table 10 and 11 list the distribution of the shareholding of the equity shares of the Company by size and by ownership class, as on March 31, 2018.

**TABLE 10: SHAREHOLDING PATTERN BY SIZE ON MARCH 31, 2018****DISTRIBUTION SCHEDULE AS ON March 31, 2018**

S. No.	No. of Shares	No. of Shareholders	% of Shareholders	No. of Shares	% of Shareholding
1	1 - 5000	100602	98.28	28960650	0.69
2	5001 - 10000	854	0.83	6608785	0.16
3	10001 - 20000	475	0.46	6955340	0.16
4	20001 - 30000	105	0.10	2636943	0.06
5	30001 - 40000	62	0.06	2170730	0.05
6	40001 - 50000	33	0.03	1499719	0.04
7	50001 - 100000	65	0.06	4584726	0.11
8	100001 & ABOVE	162	0.16	4171902107	98.74
	<b>Total:</b>	<b>102358</b>	<b>100.00</b>	<b>4225319000</b>	<b>100.00</b>

**TABLE 11: SHAREHOLDING PATTERN BY OWNERSHIP AS ON MARCH 31, 2018**

Category	No. of Shares Held	% of Shareholding
<b>A PROMOTER'S HOLDING</b>		
<b>1 PROMOTERS</b>		
- INDIAN PROMOTORS		
VEDANTA LIMITED	2,743,154,310	64.92
- FOREIGN PROMOTORS	0	
<b>Sub Total (A) (1)</b>	<b>2,743,154,310</b>	<b>64.92</b>
<b>B PUBLIC SHARE HOLDING</b>		
<b>1 Institutions</b>		
(a) Mutual Funds	37,569,507	0.89
(b) Venture Capital Funds	0	0.00
(c) Alternate Investment Funds	876,800	0.02
(d) Foreign Venture Capital Investors	0	0.00
(e) Foreign Portfolio Investors	95,683,746	2.27
(f) Financial Institutions/Banks	1,668,381	0.04
(g) Insurance Companies	24,668,104	0.58
(h) Provident Funds/Pension Funds	0	0.00
(i) Any other	0	0.00
Foreign National	100	0.00
<b>Sub Total (B) (1)</b>	<b>160,466,638</b>	<b>3.80</b>
<b>2 Central Governments/State Governments</b>	1,927,464	0.05
<b>Sub Total (B) (2)</b>	<b>1,927,464</b>	<b>0.05</b>
<b>3 Non-Institutions</b>		
(a) Individual Shareholders holding nominal share capital up to ₹ 2 Lakhs	42,589,887	1.01
Individual Shareholders holding nominal share capital in excess of ₹ 2 Lakhs	1,921,923	0.05
(b) NBFC's Registered with RBI	8,320	0.00
(c) Employee Trusts	0	0.00

Category	No. of Shares Held	% of Shareholding
<b>(d) Overseas Depositories (Holding DRs)</b>	0	0.00
<b>(e) Any other</b>		
President of India	1,247,950,590	29.54
Non Resident Indian Repatriable	179,803	0.00
Trusts	79,292	0.00
Non Resident Indian	1,689,046	0.04
Clearing Members	99,297	0.00
Other Schedule Banks	0	0.00
Non Resident Indian Non Repatriable	649,303	0.02
Bodies Corporate	23,060,813	0.55
IEPF	940	0.00
HUF	1,541,374	0.04
<b>Sub Total (B) (3)</b>	<b>1,319,770,588</b>	<b>31.23</b>
<b>Total Public Shareholding (B)= (B) (1)+(B) (2)+(B) (3)</b>	<b>1,482,164,690</b>	<b>35.08</b>
<b>GRAND TOTAL</b>	<b>4,225,319,000</b>	<b>100.00</b>

**(V) DEMATERIALISATION OF SHARES**

The shares of the Company are compulsory traded in dematerialised form only. The Company's shares are available for trading in the depository system of both NSDL and CDSL. As at the financial year end 4,22,24,07,399 equity shares forming 99.93% of the share capital of the Company, stand dematerialised.

The Company's share is actively traded on both the stock exchanges, namely BSE and NSE. Any shareholder desiring to transfer his shares either in physical form or to get the physical shares converted into electronic form, may contact the Company Secretary or the RTA for necessary advice and the procedure.

**(VI) OUTSTANDING GDRS / ADRS / WARRANTS/ OPTIONS**

The Company has not issued any Global Depository Receipts / American Depository Receipts / Warrants / Options.

**(VII) DETAILS OF PUBLIC FUNDING OBTAINED IN THE LAST THREE YEARS**

No public funding has been obtained in the last three years.

**(VIII) COMMUNICATION WITH SHAREHOLDERS AND OTHERS**

The Company published its quarterly, half yearly and yearly results in the form as prescribed under SEBI (LODR) within the prescribed time. The results were sent to stock exchanges where shares are listed and the same were published in The Economic Times, Business Standard and Rajasthan Patrika/Dainik Bhaskar.

The financial results and official news releases are also displayed on the website of the Company ([www.hzindia.com](http://www.hzindia.com)). Annual Report containing inter-alia Audited Annual Financial Statements, Board's Report, Auditors Report and other important and statutory information are circulated to all members and to others entitled thereto. The Business Review along with CEO and CFO certificate forms a part of the Annual Report.

**TABLE 12: DETAILS OF THE ANNOUNCEMENT OF THE FINANCIAL RESULTS FOR FY 2017-18**

Description	Date
Unaudited Financial Results for the quarter ended on June 30, 2017	July 20, 2017
Unaudited Financial Results for the quarter and half year ended on September 30, 2017	October 23, 2017
Unaudited Financial Results for the quarter and nine months ended on December 31, 2017	January 18, 2018
Audited Financial Results for the quarter and year ended on March 31, 2018	April 30, 2018

In addition to this, if there is any other announcement affecting the shareholders or public, it is duly informed to the stock exchanges and published in newspapers for the benefit of shareholders and public at large. The same are also placed on the website of the Company for information of all.

**(IX) GENERAL BODY MEETINGS****TABLE 13: DETAILS OF THE LAST THREE GENERAL BODY MEETINGS**

Date	AGM	Location	Time
June 15, 2015	49 <sup>th</sup> AGM	Yashad Bhawan, Udaipur, Rajasthan	2.30 P.M.
June 28, 2016	50 <sup>th</sup> AGM	Yashad Bhawan, Udaipur, Rajasthan	2.30 P.M.
August 18, 2017	51 <sup>st</sup> AGM	Yashad Bhawan, Udaipur, Rajasthan	2.30 P.M.

In the last three Annual General Meetings, special resolution was passed only for the reappointment of Statutory Auditors.

**Annual General Meeting**

Date: August 31, 2018

Time: 2.30 pm

Venue: Yashad Bhawan, Udaipur

**Financial Calendar**

The Company follows the financial year i.e. April to March for accounting purposes.

For the year ending March 31, 2019, financial results will be announced in the month following the end of the quarter.

**Book Closure**

The dates of book closure are from August 24, 2018 to August 30, 2018, both days inclusive.

**(X) POSTAL BALLOT**

During the current year, no approval of shareholders was taken through Postal Ballot.

**(XI) REGISTRAR AND TRANSFER AGENT**

M/s. Karvy Computershare Private Limited  
"Karvy House"  
46, Avenue 4, Street No. 1, Banjara Hills  
Hyderabad – 500 034.  
Ph. no.: 040-23312454  
Fax no.: 040-23311968  
E-mail: einward.ris@karvy.com

These cover:

- Guidelines on Corporate Communication
- Securities Dealing Code (Insider Trading Regulations)
- Whistle Blower Policy
- Gift Policy
- The UK Bribery Act
- Foreign Corrupt Practices Act (USA)
- Fraud
- Human Rights
- Antitrust Compliance for Restricting Anti-Competitive Practices
- Health, Safety & Environment
- Political Contribution
- Sexual Harassment

The Code also covers Whistle Blower policy and Vigil Mechanism, which is available on the website of the Company, <http://www.hzindia.com/common/images/HZL-WHISTLE-BLOWER-POLICY-19.10.2015.pdf>. The annual declaration of its compliance by senior management personnel of the Company is given by the CEO & Whole-time Director, the same is annexed. During the year no personnel was denied access to the Audit Committee.

**GOVERNANCE & COMPLIANCE****1. CODE OF CONDUCT**

Our values and principles are enshrined in the Business Ethics & Code of Conduct ("Code") applies to all executives of the Company. All Board members and all executives annually affirm compliance with the Code. This Code also ensures compliance with the provisions of the SEBI (LODR). All executives were imparted classroom training during the year in addition to 100% of new joinees.

We adhere to section 184 of the Companies Act, 2013 which requires that every Director of a Company who is in any way concerned or interested in a contract or arrangement, is required to disclose the nature of his concern or interest annually at a meeting of the Board of Directors.

**2. INTERNAL CONTROL SYSTEM**

On the recommendation of the Audit Committee, the Company appointed M/s KPMG, Chartered Accountants as the internal auditors of the Company for the financial year 2017-18. Documents, policies and authorisation

guidelines comply with the level of responsibility and standard operating procedures specific to the respective businesses. Observations made in internal audit reports on business processes, systems, procedures and internal controls and implementation status of recommended remedial measures by M/s KPMG - Internal Auditors, are presented quarterly to the Audit Committee of the Board. The Company has a well-established internal control system and procedures and the same has been working effectively throughout the year.

### 3. RISK MANAGEMENT

The Company operates in conditions where economic, environment and social risk are inherent to its businesses. To overcome this and as per requirement of SEBI (LODR), Board has formed a Risk Management Committee to oversee the mitigation plan for the key risks faced by the Company.

The Company has developed a very comprehensive risk management policy under which all key risks and mitigation plans are compiled into a Risk Matrix. The same is reviewed quarterly by senior management and periodically also by the Risk Management Committee of the Board. The Risk Matrix contains the Company's assessment of impact and probability of each significant risk and mitigation steps taken or planned. The Company has unit-wise Risk Matrix which is reviewed quarterly by Unit and Location Management.

For a detailed discussion, please refer to section on Risk Management Framework.

### 4. COMPLIANCE

Our compliance systems cover a multitude of statutory obligations and ensures adherence to all applicable laws and regulations. During FY 2017-18, no material and uncontested financial or non-monetary sanctions were imposed upon the Company except as disclosed in the Financial Statements. Some of the key compliance aspects are dealt with below:

#### (a) Disclosure of Related Party Transactions

There have been no materially significant related party transactions with the Company's Promoters, Directors, Management or their relatives which have a potential conflict with the interests of the Company. Members may refer to disclosures made in Note No 38 to Financial Statements in compliance of Regulation 23 of SEBI (LODR) and Ind-AS 24. All the related party transactions are at arm's length price and in the ordinary course of business and with the prior approval of the Audit Committee. As per section 177 and 188 of the Companies Act 2013, Related Party Transaction policy is also available on the company website [http://www.hzllindia.com/common/images/Related\\_Party\\_Transaction\\_Policy.pdf](http://www.hzllindia.com/common/images/Related_Party_Transaction_Policy.pdf)

#### (b) Disclosure of Accounting Treatment in Preparation of Financial Statements

The Company follows the guidelines of Accounting Standards referred to in section 133 of the Companies Act, 2013 read with Rule 7 of the Companies (Accounts) Rules, 2014 together with Ind AS issued by the Institute of Chartered Accountants of India.

#### (c) Compliance with Capital market regulations

The Company has complied with all the requirements of regulatory authorities and no penalties or strictures were imposed on the Company by stock exchanges or SEBI or any other statutory authority on any matter related to capital market during the last three years.

In compliance with SEBI's regulation on prevention of insider trading, the Company has instituted a comprehensive insider trading code for its management and designated executives, which advises them on procedures to be followed and disclosures to be made while dealing with shares of the Company and cautioning them of the consequences of violations. No violations have been reported during the year.

#### (d) Vigil Mechanism

The Company has formatted a Vigil Mechanism for Directors and employees to report genuine concerns. The Vigil Mechanism provides adequate safeguards against victimisation of any person who avail the mechanism and also provides for direct access to the Chairperson of the Audit Committee. The designated email id for lodging the complaints under Vigil Mechanism or Whistle Blower is hzl.whistleblower@vedanta.co.in and has also provided dedicated phone number. The same is also available on the website of the Company.

#### (e) CEO and CFO Certification

The CEO and CFO certification of the Financial Statements for FY 2017-18 is enclosed at the end of this report.

#### (f) The Company has complied with all mandatory requirements of SEBI (LODR) Regulations, 2015 including discretionary requirements. The ones not yet adopted are as follows:

- Maintenance of Chairman's office: Currently Chairman is a non-executive Chairman.
- Communication of half yearly results to each household of members: Results are placed on the Company's website and published in leading newspapers.



**(g) Additional Shareholder Information**

**Registered Office:** Hindustan Zinc Limited, Yashad Bhawan, Udaipur - 313004, Rajasthan

**Plant Locations**

Mining Units (all in Rajasthan):

Rampura Agucha Mine	:	Bhilwara District
Sindesar Khurd Mine	:	Rajsamand District
Zawar Mines	:	Udaipur District
Rajpura Dariba Mine	:	Rajsamand District
Kayad Mine	:	Ajmer District
Maton Mine	:	Udaipur District

**Smelting Units (all in Rajasthan):**

Chanderiya Lead Zinc Smelter	:	Chittorgarh District
Dariba Smelting Complex	:	Rajsamand District
Debari Zinc Smelter	:	Udaipur District

**Captive Power Plants (all in Rajasthan):**

Chanderiya Lead Zinc Smelter	:	Chittorgarh District
Dariba Smelting Complex	:	Rajsamand District
Zawar	:	Udaipur District

**Processing & Refining Units:**

Haridwar Zinc Plant	:	Haridwar District, (Uttarakhand)
Pantnagar Metal Plant	:	Rudrapur District (Uttarakhand)

**Discontinued Units:**

Vizag Zinc Smelter	:	Visakhapatnam District (Andhra Pradesh)
Tundoo Lead Smelter	:	Dhanbad District (Jharkhand)

**Wind Power Farms:**

Samana	:	Jamnagar District (Gujarat)
Gadag	:	Gadag District (Karnataka)
Gopalpura	:	Hassan District (Karnataka)
Mokal	:	Jaisalmer District (Rajasthan)
Osiyan	:	Jodhpur District (Rajasthan)
Chakala	:	Nandurbar District (Maharashtra)
Muthiyampatti	:	Tirpur District (Tamil Nadu)

**Address for Correspondence:**

Mr. R. Pandwal  
Company Secretary  
Hindustan Zinc Limited  
Yashad Bhawan,  
Udaipur – 313004,  
Rajasthan

**COMPLIANCE CERTIFICATE UNDER REGULATION 17(8) OF SEBI (LISTING OBLIGATIONS & DISCLOSURE REQUIREMENTS) REGULATION, 2015**

- A. We, Sunil Duggal, CEO & Whole-time Director and Amitabh Gupta, Chief Financial Officer of Hindustan Zinc Limited, have reviewed the financial statements and the cash flow statement for the year and that to the best of our knowledge and belief:
- (1) these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;
  - (2) these statements together present a true and fair view of the listed entity's affairs and are in compliance with existing accounting standards, applicable laws and regulations.
- B. There are, to the best of our knowledge and belief, no transactions entered into by the Company during the year which are fraudulent, illegal or violate the Company's code of conduct.
- C. We accept responsibility for establishing and maintaining internal controls for financial reporting and that we have evaluated the effectiveness of internal control systems of the Company pertaining to financial reporting and we have disclosed to the Auditors and the Audit Committee, deficiencies in the design or operation of such internal controls if any, of which we are aware and the steps we have taken or propose to take to rectify these deficiencies.
- D. We have indicated to the Auditors and the Audit Committee
- (1) Significant changes in internal control over financial reporting during the year;
  - (2) Significant changes in accounting policies during the year and that the same have been disclosed in the Notes to the financial statements; and
  - (3) Instances of significant fraud of which we have become aware and the involvement therein if any, of the management or an employee having a significant role in the listed entity's internal control system over financial reporting.

**Amitabh Gupta**  
Chief Financial officer

**Sunil Duggal**  
CEO & Whole-time Director

Date: April 30, 2018

**AUDITOR'S REPORT ON COMPLIANCE WITH THE CONDITIONS OF CORPORATE GOVERNANCE AS PER PROVISIONS OF CHAPTER IV OF SECURITIES AND EXCHANGE BOARD OF INDIA (LISTING OBLIGATIONS AND DISCLOSURE REQUIREMENTS) REGULATIONS, 2015**

The Members  
Hindustan Zinc Limited  
Yashad Bhawan,  
Udaipur-313004  
Rajasthan

1. The accompanying Corporate Governance Report prepared by Hindustan Zinc Limited (hereinafter the "Company"), contains details as required by the provisions of Chapter IV of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, as amended ("the Listing Regulations") ('Applicable criteria') with respect to Corporate Governance for the year ended March 31, 2018.

**MANAGEMENT'S RESPONSIBILITY**

2. The preparation of the Corporate Governance Report is the responsibility of the Management of the Company including the preparation and maintenance of all relevant supporting records and documents. This responsibility also includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the Corporate Governance Report.
3. The Management along with the Board of Directors are also responsible for ensuring that the Company complies with the conditions of Corporate Governance as stipulated in the Listing Regulations, issued by the Securities and Exchange Board of India.

**AUDITORS' RESPONSIBILITY**

4. Pursuant to the requirements of the Listing Regulations, our responsibility is to express a reasonable assurance in the form of an opinion whether the Company has complied with the specific requirements of the Listing Regulations referred to in paragraph 1 above.
5. We conducted our examination of the Corporate Governance Report in accordance with the Guidance Note on Reports or Certificates for Special Purposes and the Guidance Note on Certification of Corporate Governance, both issued by the Institute of Chartered Accountants of India ("ICAI"). The Guidance Note on Reports or Certificates for Special Purposes requires that we comply with the ethical requirements of the Code of Ethics issued by the Institute of Chartered Accountants of India.
6. We have complied with the relevant applicable requirements of the Standard on Quality Control (SQC) 1, Quality Control for Firms that perform Audits and Reviews of Historical Financial Information, and other Assurance and Related Services Engagements.
7. The procedures selected depend on the auditor's judgement, including the assessment of the risks associated in compliance of the Corporate Governance Report with the applicable criteria. Summary of key procedures performed include:
  - i. Reading and understanding of the information prepared by the Company and included in its Corporate Governance Report;
  - ii. Obtained and verified that the composition of the Board of Directors w.r.t executive and non-executive directors has been met throughout the reporting period;
  - iii. Obtained and read the Directors register as on March 31, 2018 and verified that at-least one women director was on the Board during the year;
  - iv. Obtained and read the minutes of the following committee meetings held from April 1, 2017 to March 31, 2018:
    - (a) Board of Directors meeting;
    - (b) Audit committee;

- (c) Nomination and remuneration committee;
  - (d) Stakeholders Relationship Committee; and
  - (e) Risk management committee
- v. Obtained necessary representations and declarations from directors of the Company including the independent directors; and
- vi. Performed necessary inquiries with the management and also obtained necessary specific representations from management.

The above-mentioned procedures include examining evidence supporting the particulars in the Corporate Governance Report on a test basis. Further, our scope of work under this report did not involve us performing audit tests for the purposes of expressing an opinion on the fairness or accuracy of any of the financial information or the financial statements of the Company taken as a whole.

#### **BASIS FOR QUALIFIED OPINION**

8. We further report that the Board of Directors of the Company is duly constituted with proper balance of Executive Directors, Non-Executive Directors except that with regard to the requirement of having minimum number of independent directors in terms of Regulation 17(1) (b) of the Listing Regulations, the Company has not met the said requirement with one independent director being short throughout the year.

#### **QUALIFIED OPINION**

9. Based on the procedures performed by us as referred in paragraph 7 above, and according to the information and explanations given to us, except for matter stated in paragraph 8 above, we are of the opinion that the Company has complied with the conditions of Corporate Governance as stipulated in the Listing Regulations, as applicable as at March 31, 2018, referred to in paragraph 1 above.

#### **OTHER MATTERS AND RESTRICTION ON USE**

10. This report is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the management has conducted the affairs of the Company.
11. This report is addressed to and provided to the members of the Company solely for the purpose of enabling it to comply with its obligations under the Listing Regulations with reference to Corporate Governance Report accompanied with by a report thereon from the statutory auditors and should not be used by any other person or for any other purpose. Accordingly, we do not accept or assume any liability or any duty of care or for any other purpose or to any other party to whom it is shown or into whose hands it may come without our prior consent in writing. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

For **S.R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration Number: 301003E/E300005

**per Raj Agrawal**

Partner

Membership Number: 82028

Place: Gurgaon

Date: April 30, 2018



# BUSINESS RESPONSIBILITY REPORT

## SECTION A: GENERAL INFORMATION

1. Corporate Identity Number (CIN) of the Company	L27204RJ1966PLC001208
2. Name of the Company	Hindustan Zinc Limited
3. Registered address	Yashad Bhawan, Udaipur – 313004 (Rajasthan) India
4. Website	www.hzindia.com
5. E-mail id	hzi.cosecy@vedanta.co.in
6. Financial Year reported	April 1, 2017 - March 31, 2018
7. Sector(s) that the Company is engaged in (industrial activity code-wise)	Mining and Smelting of Non Ferrous metal National Industrial Classification Code: Zinc - 27204 Lead - 27209
8. List three key products/services that the Company manufactures/ provides (as in balance sheet)	Zinc, Lead and Silver
9. Total number of locations where business activity is undertaken by the Company	
i. Number of International Locations	Nil
ii. Number of National Locations	11 operating units (excluding wind farms, captive power plants and administrative offices)
10. Markets served by the Company - Local/State/National/ International	Our products are sold almost in all the states in India. We also export, primarily to Asia & Middle East

## SECTION B: FINANCIAL DETAILS

1. Paid up Capital	₹ 845 Crore
2. Total Turnover	₹ 22,084 Crore
3. Total profit after taxes	₹ 9,276 Crore
4. Total spending on Corporate Social Responsibility (CSR) as percentage of profit after tax (%)	₹ 92.18 Crore, equivalent to 0.99% of the profit after tax
5. List of activities in which expenditure in 4 above has been incurred	Education; Sustainable Livelihoods; Women's Empowerment; Health, Water & Sanitation; Sports & Culture; Environment; and Community Development

## SECTION C: OTHER DETAILS

1. Does the Company have any Subsidiary Company/ Companies?	No
2. Do the subsidiary Company/Companies participate in the BR Initiatives of the parent company? If yes then indicate the number of such subsidiary Company(s)	NA
3. Do any other entity/entities (e.g. suppliers, distributors etc.) that the Company does business with, participate in the BR initiatives of the Company? If yes, then indicate the percentage of such entity/entities? [Less than 30%, 30-60%, More than 60%]	No

## SECTION D: BR INFORMATION

### 1. DETAILS OF DIRECTOR/DIRECTORS RESPONSIBLE FOR BR

#### a) Details of the Director/Director(s) responsible for implementation of the BR Policy/policies

S. No.	Particulars	Details
1.	DIN Number (if applicable)	07291685
2.	Name	Mr. Sunil Duggal
3.	Designation	Chief Executive Officer & Whole-time Director
4.	Telephone number	0294 6604000
5.	e-mail id	hzi.cosecy@vedanta.co.in

#### b) Details of the BR head

same as above

**2. PRINCIPLES OF BUSINESS RESPONSIBILITY (BR) POLICY AS PER NATIONAL VOLUNTARY GUIDELINES (NVG)**

- Principle 1 (P1): Conduct, Governance, Ethics, Transparency and Accountability
- Principle 2 (P2): Safety and Optimal Resource Utilisation across Product Lifecycle
- Principle 3 (P3): Employee Well-being
- Principle 4 (P4): Engaging Stakeholders
- Principle 5 (P5): Respecting and Promoting Human Rights
- Principle 6 (P6): Nurturing the Environment
- Principle 7 (P7): Responsible Policy Advocacy
- Principle 8 (P8): Supporting Inclusive Development
- Principle 9 (P9): Providing Customer Value

**PRINCIPLE-WISE (AS PER NVGS) BR POLICY/POLICIES**

Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
1. Do you have a policy/policies* for....	Y	Y	Y	Y	Y	Y	Y	Y	Y
2. Has the policy been formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Does the policy conform to any national /international standards? If yes, specify? (50 words) Please refer footnote * below	Y	Y	Y	Y	Y	Y	Y	Y	Y
4. Has the policy been approved by the Board*? If yes, has it been signed by MD/owner/CEO/ appropriate Board Director?	Y	Y	Y	Y	Y	Y	Y	Y	Y
5. Does the Company have a specified committee of the Board/ Director/Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	Y	Y	Y
6. Indicate the link for the policy to be viewed online?	<a href="http://www.hzllindia.com/code_conduct.aspx">http://www.hzllindia.com/code_conduct.aspx</a>								
7. Has the policy been formally communicated to all relevant internal and external stakeholders?	The policies have been communicated to the key internal stakeholders and are enshrined in the Company website.								
8. Does the Company have in-house structure to implement the policy/policies?	Y	Y	Y	Y	Y	Y	Y	Y	Y
9. Does the Company have a grievance redressal mechanism related to the policy/policies to address stakeholders' grievances related to the policy/policies?	Yes, any grievances or the feed-back relevant to the policies can be sent to <a href="mailto:hzl.cosecy@vedanta.co.in">hzl.cosecy@vedanta.co.in</a> or <a href="mailto:hzl.whistleblower@vedanta.co.in">hzl.whistleblower@vedanta.co.in</a>								
10. Has the Company carried out independent audit/ evaluation of the working of this policy by an internal or external agency?	The policies have been evaluated internally. Several of the policies are also included in third party audits.								

\* All the policies of the Company emanate from Vedanta Sustainability Governance Standards, which are aligned with International Finance Corporation and meet the requirement of IMS Standards. Most of these policies are enshrined in the Company's Business Ethics & Code of Conduct, which has been approved by the Board.

**2A. IF ANSWER TO S. NO. 1 AGAINST ANY PRINCIPLE, IS 'NO', PLEASE EXPLAIN WHY**

Not Applicable

**3. GOVERNANCE RELATED TO BR**

**I. Indicate the frequency with which the Board of Directors, Committee of the Board or CEO assess the BR performance of the Company. Within 3 months, 3-6 months, Annually, More than 1 year.**

CEO & Whole-time Director and Senior Management assess the BR performance on an on-going basis, at least annually.

**II. Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?**

Separate Sustainability report was published in FY 2017 and same is hosted on the Company website. Same is being finalized for FY 2018 and will also be hosted on the Company website.

**SECTION E: PRINCIPLE-WISE PERFORMANCE**

**PRINCIPLE 1: CONDUCT, GOVERNANCE, ETHICS, TRANSPARENCY AND ACCOUNTABILITY**

**1. Does the policy relating to ethics, bribery and corruption cover only the Company? Yes/ No. Does it extend to the Group/Joint Ventures/Suppliers/Contractors/NGOs /Others?**

No. The Business Ethics and Code of Conduct serves as the guiding philosophy for all employees, suppliers, customers, NGOs and others who have dealings with the Company. All stakeholders are expected to comply with the Business Ethics and Code of Conduct. A separate Vendor's Code of Conduct specifically covers our vendors and partners. Both the codes are available on the Company's website.

**2. How many stakeholder complaints have been received in the past financial year and what percentage was satisfactorily resolved by the management? If so, provide details thereof, in about 50 words or so.**

26 investor complaints were received during FY 2018 and all were resolved. Other complaints are received by different functionaries in the Company and are suitably addressed. In addition, customer complaints and whistle blower complaints are monitored separately and all have been satisfactorily resolved.

**PRINCIPLE 2: SAFETY AND OPTIMAL RESOURCE UTILISATION ACROSS PRODUCT LIFECYCLE**

**1. List up to three of your products or services whose design has incorporated social or environmental concerns, risks and/or opportunities.**

Our three major products are zinc, lead and silver metal. We make all efforts to ensure that we produce in a safe and environmentally responsible manner. Over the year, we have constantly improved our recoveries, reduced hazardous waste generation, improved water and energy consumption and adopted new technologies to

optimally use available natural resources to improve our environment footprint. Below are three illustrations:

- Zinc in Jumbo shape helps in lesser zinc wastage, ease of handling, cost efficiency and better safety in customer's operations. The smaller surface area to weight ratio of zinc jumbos compared to small ingot means less turbulence during galvanizing bath and therefore less ash is produced.
- Continuous Galvanizing Grade (CGG) zinc alloy as per customer requirement removes the need to alloy at customer's premises and thus saves energy, cost and improves bath management during galvanizing.
- PW zinc is a pre-alloyed zinc lead combination and with its use there is no need to add lead separately in zinc galvanizing bath reducing occupational hazards of operators in dealing with lead in galvanizing plant.

**2. For each such product, provide the following details in respect of resource use (energy, water, raw material etc.) per unit of product (optional):**

**Energy Conservation:** Energy consumption is constantly monitored at the mines, smelters and refineries with a view to achieve overall reduction. In order to conserve energy, the Company has taken many initiatives like replacement of old high pressure burner with low pressure burner, duct modifications, process optimisation, VFDs, replacement of motors with energy efficient motors and LED lights in place of conventional lights.

To reduce our dependency on non-renewable energy sources we are optimizing renewable energy through solar power and wind power plant (16 MW already commissioned and rest 61 MW under project stage).

**Water use efficiency:** Used water is reclaimed and re-used in order to conserve water. All units are maintaining zero discharge via treatment plants. The processes are also reviewed and modified so as to reduce the requirement of water from time to time.

With the success of 20 million litres per day (MLD) Sewage Treatment Plant (STP), Phase-2 of 40 MLD STP is being planned out of which 25 MLD will be utilised in Dariba and this will bring the fresh water intake to minimum at our Rajpura Dariba complex

**i. Reduction during sourcing/production/ distribution achieved since the previous year throughout the value chain?**

	2016-17		2017-18	
	Sp. Energy Consumption	Sp. Water Consumption	Sp. Energy Consumption	Sp. Water Consumption
HZL	22.61	14.61	20.52	15.08

Energy (GJ/MT of Metal)

Water (m3/MT of Metal)

ii. **Reduction during usage by consumers (energy, water) has been achieved since the previous year?**

Our increased focus on value added products has improved energy consumption at the consumer's end. As an illustration of Jumbo zinc, with innovative design and customization of products, better zinc galvanizing bath management is achieved since melting of uniform bigger blocks is less energy consuming than smaller ingots due to lesser surface area, better transmission of heat and no energy wastage due to lesser splashing in zinc bath. Substantial amount of energy cost saving has been realized by zinc consumers. Customers get benefit of less dross generation and less recycling cost. Also with CGG, Pre aluminum alloyed Zinc etc., the customer gets benefit of avoiding the alloying energy cost. Some customers have reported a saving to the extent of \$15 per Mt of alloy supplied by us.

3. **Does the Company have procedures in place for sustainable sourcing (including transportation)?**

i. **If yes, what percentage of your inputs was sourced sustainably?**

The Company sources its primary raw-material from captive mines. Beneficiation is generally carried on within the mine premises to minimise transportation. For the past several years, the Company has added more to its mining reserves and resources than it has depleted, through systematic exploration efforts.

The Company has now developed in conjunction with transporters and third parties, mechanised shutter vehicles for movement of concentrate. This will be proliferated during the coming years and will reduce spillage, pilferage and dust pollution on the roads. We are increasing transportation of raw material and finished goods through Rail which will help in reduction in carbon emission. The company also encourages Vendors to set up local manufacturing units in vicinity of our operations to reduce transportation.

Please also refer to our Environment section from Page No. 45 to 51 of Annual Report for details about our water, waste and energy conservation initiatives.

4. **Has the company taken any steps to procure goods and services from local & small producers, including communities surrounding their place of work? If yes, what steps have been taken to improve their capacity and capability of local and small vendors?**

The Company sources its major inputs from OEMs and

large national and international manufacturers. There is limited industrial activity around our operations. We are actively promoting "Make in India" and are influencing some of our major suppliers to set up manufacturing facility in proximity of our operations which will provide local employment and technology development in India. Our direct & indirect employment as also our CSR activities are largely focused on the communities surrounding our operations.

5. **Does the company have a mechanism to recycle products and waste? If yes what is the percentage of recycling of products and waste (separately as <5%, 5-10%, >10%). Also, provide details thereof, in about 50 words or so.**

Our production process is based on principles of optimal use of the material and natural resources. Our primary activities are in the extraction, processing and smelting of various minerals as well as power generation using well-established processes and technologies. Our focus on best available technology helps us to produce these products using efficient energy consumption and maximum mineral recovery. We have in place a Resource Use and Waste Management Technical Standard and the supporting guidance notes which augment us to mitigate the environmental impacts of our products and process.

We have been constantly enhancing technical capabilities for better recoveries of main products and by-products. We have commenced construction of a Fumer plant in our existing leaching circuit of Hydrometallurgical process. This will eliminate generation of hazardous waste and help us to eliminate the use of land for storing this waste. We have also commissioned Paste Fill Plants, at Sindesar Khurd Mine and Rampura Agucha mine as an environmentally sustainable global practice.

Central R&D Laboratory (CRDL) of Hindustan Zinc has worked with wastes generated from Pyro-smelting, Hydro-smelting and Captive Power Plant respectively and established a suitable raw mix design to cast paver blocks using these waste materials.

During the year, a Waste to Wealth committee was constituted to spearhead generation of wealth from waste. The primary objective is reduction of waste generation, conversion of residue material into saleable product and reduction of waste to SLFs. The business continued to improve its performance in conservation and recycling. During the reporting year, the water recycling rate was 35% (FY 2017: 33%) and 42% of the waste generated during the year recycled. (FY 2017: 39%)

We are actively engaged with Regulatory authorities' stream lining approvals for utilizing Jarosite/ Jarofix / Slag in Road Construction and in manufacturing of Cement.



**PRINCIPLE 3: EMPLOYEE WELL-BEING****1. Please indicate the total number of employees.**

4,398 executives &amp; non-executives as at March 31, 2018

**2. Please indicate the total number of employees hired on temporary/contractual/casual basis.**

15,262 under our contractors as at March 31, 2018

**3. Please indicate the number of permanent women employees.**

364 as at March 31, 2018

**4. Please indicate the number of permanent employees with disabilities**

Not tracked

**5. Do you have an employee association that is recognized by the management?**

Yes, there are recognised trade unions

**6. What percentage of your permanent employees are members of this recognized employee association?**

100% of all non-executives

**7. Please indicate the number of complaints relating to child labour, forced labour, involuntary labour, sexual harassment in the last financial year and pending, as on the end of the financial year.**

Nil

S. No	Category	No of complaints filed during the financial year	No of complaints pending as on end of the financial year
1	Child labour/forced labour/involuntary labour	Nil. The Company does not hire child labour, forced labour or involuntary labour	Nil
2	Sexual Harassments	Nil	Nil
3	Discriminatory employment	The Company does not discriminate in the recruitment process. No reported case.	Nil

**8. What percentage of your under mentioned employees were given safety & skill up-gradation training in the last year?**

Category	Safety Training	Total (as on March 31, 2018)	%	Skill Upgradation Training	%
Permanent Executives*	8,540	4398	NA	14,697	NA
Permanent Women Employees	60	364	NA	2,372	NA
Contractual Employees	2,32,830	15,262	NA	4,991	NA
Employees with Disability		Separate list not available			

\* Includes executives and non-executives

Since many employees go through multiple training programs, percentage is not relevant

**PRINCIPLE 4: ENGAGING STAKEHOLDERS - SUSTAINING VALUE****1. Has the Company mapped its internal and external stakeholders? Yes/No**

Yes. Our primary stakeholders are our employees, vendors, customers, Governments, shareholders and the communities around our operations. We continuously engage with each of our stakeholder groups on a pro-active basis and have different grievance redressal mechanisms and stakeholder engagement methodologies in place.

**2. Out of the above, has the Company identified the disadvantaged, vulnerable & marginalized stakeholders.**

Identification of the disadvantaged, vulnerable and marginalized stakeholders is an on-going process. In particular, for any new proposed project or expansion, we map and engage with all such stakeholders on a proactive basis, particularly through our CSR activities. Further, we have stakeholder management and grievance mechanism in place at all our locations.

**3. Are there any special initiatives taken by the Company to engage with the disadvantaged, vulnerable and marginalized stakeholders. If so, provide details thereof, in about 50 words or so.**

Yes, we engage with the disadvantaged, vulnerable and marginalised stakeholders. Under our project Jeevan Tarang Zinc Ke Sang for the differently abled people we have join hands with the institutions working with them near our locations in Ajmer, Bhilwara, Chittorgarh and

Udaipur district and reached to about 600 differently abled children. We have also engaged Noida Deaf Society through which we have been able to carry out following major activities in these institutions:

- Indian Sign Language training has been integrated for hearing impaired students and their teachers
- Technology based learning for visually impaired students by giving android smart phones to access books through Bookshare, world's largest online library for visually impaired

Further to this we have partnered with National Handicapped Finance and Development Corporation wherein skill training of 100 differently abled people is being provided in various trades.

Sakhi Women's Empowerment Program is running for rural and tribal women to empower them socio-economically and to build grass-root institutions. Details of this are given on Page No. 65 of Annual report

#### PRINCIPLE 5: RESPECTING AND PROMOTING HUMAN RIGHTS

##### 1. Does the policy of the Company on human rights cover only the Company or extend to the Group/ Joint Ventures/Suppliers/Contractors/NGOs/ Others?

Our Human Rights policy is aligned to the United Nations Guiding Principles on Business and Human Rights. The policy also covers all its suppliers, contractors and NGOs. The clauses of the Code of Conduct and SA 8000 standards extend to all business partners.

##### 2. How many stakeholder complaints have been received in the past financial year and what percent was satisfactorily resolved by the management?

There have been no stakeholder complaints related to human rights. Please also refer to principle 1, point 2.

#### PRINCIPLE 6: NURTURING THE ENVIRONMENT

##### 1. Does the policy cover only the Company or extends to the Group/Joint Ventures/Suppliers/Contractors/ NGOs/others.

All our Sustainability policies (HSE, Biodiversity, Energy & Climate change, Water Management, HIV/ AIDs, Human Rights and Supplier & Contractor Sustainability Management and CSR Policy) is applicable and extended to Suppliers/ Contractors/NGOs/others. We aim to propagate the principles of Sustainability throughout our Value chain and to all stakeholders. The Policy on 'Supplier & Contractor Sustainability Management' encourages resource efficiency in the supply chain which together with the 'Code of Conduct for Vendors and Service Providers' provide guidance to supply chain members and partners to adopt sustainable practices. Also, induction and refresher trainings are

imparted to our contract employees and others to raise awareness on sustainability policies and standards.

##### 2. Does the Company have strategies/initiatives to address global environmental issues such as climate change, global warming etc.? Y/N. If yes, please give details.

Majority of the manufacturing locations of HZL are certified as per ISO: 14001 Environment Management System and OSHAS 18001. Our Sindesar Khurd Mine and Rajpura Dariba Mine has been certified as per ISO: 50001 Energy Management System and we are targetting ISO: 50001 Energy Management System certification for all units. There are several innovative technologies which have been implemented to reduce the energy consumption as well as to use the renewable energy. We are also conducting energy audits and taking the measures to improve the energy efficiency continuously.

Energy & Climate Change Management policy and HSE policy guides the organisation to proactively address the impact of climate change and other global environment issues through adopting and maintaining global best practices in Energy and Climate Change management, Water Management and to minimise greenhouse gas emissions.

We are publically disclosing our Scope 1, Scope 2 and Scope 3 GHG emissions through climate change CDP disclosure.

The Company is committed to Science Based Target initiative and commits to reduce absolute Scope 1 and Scope 2 GHG emissions by 9.90% till 2026 from a base year of 2016.

Most of our operations are in state of Rajasthan which is water scarce region and we see a climate change as a material concern for our business and stakeholders. Our focus is on both climate mitigation and adaption measures. This includes diversifying water and energy resources, securing alternative water source for the business, public private partnership for municipal water reuse / recycling, sustainable agriculture, energy use optimization, efficiency improvement, alternative source of energy use etc.

The Company has undertaken several water conservation and harvesting initiatives for reduction in fresh water intake. These include continual improvement in specific water consumption; adoption of best practices to achieve zero discharge in the Company's operating units and the establishment of rainwater harvesting structures both within the Company's premises and in the catchment areas of its operations. These initiatives not only lower fresh water consumption but also maximise groundwater recharge.

Hindustan Zinc's Rajpura Dariba Mines, SK Mine and Rampura Agucha Mines were bestowed with "5 STAR Rating Mine Award- 2018" under aegis of Indian Bureau of Mine, Ministry of Mine.

We continuously monitor our Greenhouse Gas emission intensity for reduction and endeavour to minimize our carbon footprint and voluntarily participate in Carbon Disclosure Project program since 2011. We are also signatory of UNGC and FIMI and submit the communication of progress every year. We have also initiated the process of reporting our sustainability performance as per the GRI Standards in our Sustainability report. The Company is also computing its Greenhouse Gas inventory in line with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, which is being assured as per the ISAE 3000 standard, by a third-party assurance provider.

This year was significant with recognition at Global level as ranked 11th globally in Dow Jones Sustainability Index in metal and mining industries for our Sustainability Performance and also ranked 3rd globally in Environment dimension.

### 3. Does the company identify and assess potential environmental risks? Y/N

Yes, Environmental risks are regularly identified and assessed through the following:

- Environment & Social Impact Assessment studies carried out by recognized and approved third parties to identify risks and based on that mitigation plan is prepared in the form of Environmental & Social Management Plan, which is integral part of ESIA document.
- Environmental risks are being identified and assessed as part of Integrate Management system ISO: 14001.
- Risk register is being maintained by all units as per Risk Management policy and major risks are being reviewed periodically at corporate level.
- Hazard Identification and Risk assessment are also conducted as part of safety management system to identify potential environmental hazards and risks.
- Environment incidents are being captured through online module. Root cause analysis is being done through why-why analysis and learnings are being shared to all units to avoid the reoccurrence.

To effectively manage each of environmental risks, we have a set of Sustainability policies and management & technical standards. An integrated sustainability database management system implemented across the Company ensures monitoring and reviewing

of sustainability performance through defined key performance indicators. We have Sustainability Assurance process in place for ensuring accuracy and verifiability of sustainability performance against the four pillars of our Sustainability Framework.

Hindustan Zinc received ICICI Lombard and CNBC TV 18 - India Risk Management award 2018 for its best sustainability Risk Management System.

### 4. Does the Company have any project related to Clean Development Mechanism? If so, provide details thereof, in about 50 words or so. Also, if Yes, whether any environmental compliance report is filed?

As a responsible corporate entity, the Company measures its carbon footprint and constantly focuses on reducing the same. We have 274 MW wind farms, in Gujarat, Karnataka, Rajasthan, Maharashtra and Tamil Nadu which are registered under Clean Development Mechanism (CDM) program by United Nations Framework Convention on Climate Change (UNFCCC).

We also have 34.4 MW of power capacity through waste heat recovery from roasters and Steam Turbo Generator out of which 9.4 MW WHRB projects are registered under CDM along with 21 TPH LCV boilers for steam generation project. Our 10 UNFCCC registered projects reduce our carbon footprint by 5,83,685 tonnes CO<sub>2</sub> emission per annum while our unregistered projects reduce our carbon footprints by 1,47,270 tonnes CO<sub>2</sub> emissions per annum.

In continuation of investment in green energy, last year we commissioned two solar power projects with a capacity of 16 MW at our Dariba and Debari locations for captive use of generated green energy. The solar power project at Debari smelter is installed on Jarosite pond while the Dariba project has been set-up on used secure land fill, which demonstrates our efforts towards gainful utilization of wasteland. We are also trying to register these projects under CDM program of UNFCCC. These projects will further reduce our carbon footprints by 30,000 tonnes CO<sub>2</sub> emission per annum.

#### Projects in pipeline

- 25 MW solar power project at waste dump yard of Rampura Agucha Mine
- 1 MW floating solar power project at Gosunda captive dam near Chanderiya for utilization of available water surfaces
- 5 MW roof top solar power project
- Additionally, 30 MW solar power plant and 50 MW wind power plant

Hindustan Zinc's Solar Power projects at Dariba (4.8 MWp) & Debari (14.4 MWp) have been awarded - Gold Award Winner in the Rising Category as Best Performing Project of the Year (Technical Performance) on Utility Scale Solar Energy at the RE ASSETS Excellence Awards Summit

Hindustan Zinc's 4 units received 8th Rajasthan Energy Conservation Award 2017 by Government of Rajasthan, Rampura Agucha Mine received First Prize in Large Scale Mining Sector, Sindesar Khurd Mine received Second Prize in Large Scale Mining Sector, Zawar CPP received Recognition Certificate in Large Scale Power Plant Sector and Yashad Bhawan received Recognition Certificate in Energy Conservation Building Directives (ECBD) compliant building category.

**5. Has the Company undertaken any other initiatives on - clean technology, energy efficiency, renewable energy, etc. Y/N. If yes, please give details.**

HZL has been working on climate change issues by improving its process efficiency and taking initiatives in energy efficiency, developing green zones at units and water conservation etc. We have installed 274 MW of wind power and 35 MW of waste heat recovery power plants to give an impetus to green energy. In continuation of investment in green energy last year we commissioned two solar power projects with total installed capacity of 16 MW at our Dariba mine and Debari Zinc Smelter for captive use of generated green energy. Wherever feasible we have introduced the solar or energy efficient lights. We focus on energy consumption reduction through various in-process innovations and adoption of best practices like machine productivity and improving throughput to reduce specific energy consumption.

The Corporate Office in Udaipur is a certified Green Building. Several green features are implemented to enhance the building performance.

We received India Today Safaigiri - 2017 Award for best PPP model. The Sewage Treatment Plant at Udaipur, Environment Excellence Award - 2017 by Indian Chamber of Commerce (ICC) to Kayad Mine.

**6. Is the Emissions/Waste generated by the Company within the permissible limits given by CPCB/SPCB for the financial year being reported?**

Yes, we are well within the prescribed limits by the relevant pollution control authorities. The Company continues to invest in reducing air emission levels through adoption of cleaner technologies/fuels, monitoring of combustion efficiencies and investments in state-of-the-art pollution control equipment, such as bag filters, electrostatic precipitators, etc. Regular monitoring

of significant air emission parameters, such as Particulate Matter, Nitrogen Oxide and Sulphur Dioxide to ensure compliance with regulatory requirement. Majority of the units have online ambient air quality monitoring station and meet the National Ambient Air Quality standards. We also have online monitoring systems in place for monitoring of emission and effluent to transmit data from field instrument directly to CPCB or SPCB servers.

All wastes are being stored at earmarked places and timely disposed through the approved registered recyclers as per the Hazardous Waste rules. The Company has laid down comprehensive guidelines on waste management for all its units, which cover hazardous as well as non-hazardous waste and monitoring of performance for each unit is carried out on a regular basis. The Company has measures across units to ensure waste minimisation, segregation at source and recycling.

**7. Number of show cause/ legal notices received from CPCB/SPCB which are pending (i.e. not resolved to satisfaction) as on end of Financial Year.**

Nil

**PRINCIPLE 7: RESPONSIBLE POLICY ADVOCACY**

**1. Is your Company a member of any trade and chamber or association? If Yes, name only those major ones that your business deals with:**

Yes, the Company is a member of the following organisations:

- a) Federation of Indian Mineral Industries
- b) Confederation of Indian Industry
- c) Federation of Indian Chambers of Commerce & Industry
- d) Indian Chamber of Commerce
- e) Associated Chambers of Commerce and Industry of India
- f) India Lead Zinc Development Association

**2. Have you advocated/lobbied through above associations for the advancement or improvement of public good? Yes/No; if yes specify the broad areas (drop box: Governance and Administration, Economic Reforms, Inclusive Development Policies, Energy security, Water, Food Security, Sustainable Business Principles, Others)**

Yes, for economic and mining reforms.



**PRINCIPLE 8: SUPPORTING INCLUSIVE DEVELOPMENT****1. Does the Company have specified programmes/initiatives/projects in pursuit of this policy? If yes details thereof**

As a responsible corporate citizen, the Company focuses on community development through its CSR activities. Details of our CSR activities are provided from page 60 to page 67 of Annual Report.

**2. Are the programmes/projects undertaken through in-house team/own foundation/external NGO/Government structures/any other organization?**

We undertake our CSR activities through all of the above routes, including Vedanta Foundation.

**3. Have you done any impact assessment of your initiative?**

Yes, the same is done internally and also at times with external agencies once in 3 years.

**4. What is your Company's direct contribution to community development projects - Amount in INR and the details of the projects undertaken.**

The total amount spent on all CSR activities and projects during the FY 2018 was ₹ 92.18 Crore. Details of our CSR activities are provided from page 93 to page 95 of Annual Report.

**5. Have you taken steps to ensure that this community development initiative is successfully adopted by the community? Please explain in 50 words, or so.**

Yes. We regularly conduct meeting with the stakeholders/ community and take their feedback on the

same. Details of our CSR activities are provided from page 60 to page 67 of Annual Report.

**PRINCIPLE 9: PROVIDING CUSTOMER VALUE****1. What percentage of customer complaints/consumer cases are pending as on the end of financial year.**

Out of 36 complaints received during FY 2018, 7 complaints were pending as on March 31, 2018 for closure.

**2. Does the Company display product information on the product label, over and above what is mandated as per local laws? Yes/No/N.A./Remarks (additional information)**

Yes, the Company displays the product name, batch number, grade, purity, date of production on the product label, as per industry practice.

**3. Is there any case filed by any stakeholder against the Company regarding unfair trade practices, irresponsible advertising and/or anti-competitive behaviour during the last five years and pending as on end of financial year. If so, provide details thereof, in about 50 words or so.**

No.

**4. Did your Company carry out any consumer survey/consumer satisfaction trends?**

Yes, the Company carries out customer satisfaction survey periodically. The last survey conducted was in FY 2018. In FY 2018, the Company scored 82 on the total Customer Satisfaction Index as against 75 in FY 2015, with substantial improvement seen on the experience front.

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**FINANCIAL**

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**STATEMENTS**

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# INDEPENDENT AUDITOR'S REPORT

## TO THE MEMBERS OF HINDUSTAN ZINC LIMITED

### REPORT ON THE IND AS FINANCIAL STATEMENTS

We have audited the accompanying Ind AS financial statements of Hindustan Zinc Limited ("the Company"), which comprise the Balance Sheet as at March 31, 2018, the Statement of Profit and Loss including the statement of Other Comprehensive Income, the Cash Flow Statement and the Statement of Changes in Equity for the year then ended, and a summary of significant accounting policies and other explanatory information.

### MANAGEMENT'S RESPONSIBILITY FOR THE IND AS FINANCIAL STATEMENTS

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of these Ind AS financial statements that give a true and fair view of the financial position, financial performance including other comprehensive income, cash flows and changes in equity of the Company in accordance with accounting principles generally accepted in India, including the Indian Accounting Standards (Ind AS) specified under section 133 of the Act, read with the Companies (Indian Accounting Standards) Rules, 2015, as amended. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding of the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the Ind AS financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

### AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on these Ind AS financial statements based on our audit. We have taken into account the provisions of the Act, the accounting and auditing standards and matters which are required to be included in the audit report under the provisions of the Act and the Rules made thereunder. We conducted our audit of the Ind AS financial statements in accordance with the Standards on Auditing, issued by the Institute of Chartered Accountants of India, as specified under Section 143(10) of the Act. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Ind AS financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Ind AS financial statements,

whether due to fraud or error. In making those risk assessments, the auditor considers internal financial control relevant to the Company's preparation of the Ind AS financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by the Company's Directors, as well as evaluating the overall presentation of the Ind AS financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Ind AS financial statements.

### OPINION

In our opinion and to the best of our information and according to the explanations given to us, the Ind AS financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2018, its profits including other comprehensive income, its cash flows and the changes in equity for the year ended on that date.

### REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

1. As required by the Companies (Auditor's report) Order, 2016 ("the Order") issued by the Central Government of India in terms of sub-section (11) of section 143 of the Act, we give in the Annexure 1 a statement on the matters specified in paragraphs 3 and 4 of the Order.
2. As required by section 143 (3) of the Act, we report that:
  - (a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
  - (b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books;
  - (c) The Balance Sheet, Statement of Profit and Loss including the Statement of Other Comprehensive Income, the Cash Flow Statement and Statement of Changes in Equity dealt with by this Report are in agreement with the books of account;
  - (d) In our opinion, the aforesaid Ind AS financial statements comply with the Accounting Standards specified under section 133 of the Act, read with Companies (Indian Accounting Standards) Rules, 2015, as amended;
  - (e) On the basis of written representations received from the directors as on March 31, 2018, and taken on record by the Board of Directors, none of the directors is disqualified as on March 31, 2018, from being appointed as a director in terms of section 164 (2) of the Act;

- (f) With respect to the adequacy of the internal financial controls over financial reporting of the Company with reference to these standalone Ind AS financial statements and the operating effectiveness of such controls, refer to our separate Report in "Annexure 2" to this report;
- (g) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:
- i. The Company has disclosed the impact of pending litigations on its financial position in its Ind AS financial statements – Refer note 30 to the financial statements;
  - ii. The Company did not have any long-term contracts including derivative contracts for which there were any material foreseeable losses;
  - iii. There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the Company.

**For S.R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration Number: 301003E/E300005

**per Raj Agrawal**

Partner

Membership Number: 82028

Place: Gurugram

Date: April 30, 2018



# ANNEXURE 1

Referred to in paragraph 1 under the heading “Report on other legal and regulatory Requirements” of our report of even date

## Re: Hindustan Zinc Limited (‘the Company’)

- (i) (a) The Company has maintained proper records showing full particulars, including quantitative details and situation of fixed assets.
- (b) All fixed assets have not been physically verified by the management during the year but there is a regular programme of verification which, in our opinion, is reasonable having regard to the size of the Company and the nature of its assets. No material discrepancies were noticed on such verification.
- (c) According to the information and explanations given by the management, the title deeds of immovable properties included in property, plant and equipment are held in the name of the Company.
- (ii) The management has conducted physical verification of inventory at reasonable intervals during the year and no material discrepancies were noticed on such physical verification.
- (iii) According to the information and explanations given to us, the Company has not granted any loans, secured or unsecured, to companies, firms, limited liability partnerships or other parties covered in the register maintained under section 189 of the Act. Accordingly, the provisions of clause 3(iii)(a), (b) and (c) of the Order are not applicable to the Company and hence not commented upon.
- (iv) In our opinion and according to the information and explanations given to us, there are no loans, investments, guarantees, and securities given in respect of which provisions of section 185 and 186 of the Act are applicable and hence not commented upon.
- (v) The Company has not accepted any deposits within the meaning of Sections 73 to 76 of the Act and the Companies (Acceptance of Deposits) Rules, 2014 (as amended). Accordingly, the provisions of clause 3(v) of the Order are not applicable.
- (vi) We have broadly reviewed the books of account maintained by the Company pursuant to the rules made by the Central Government for the maintenance of cost records under section 148(1) of the Act, related to the manufacture of products and generation of electricity, and are of the opinion that prima facie, the specified accounts and records have been made and maintained. We have not, however, made a detailed examination of the same.
- (vii) (a) The Company is regular in depositing with appropriate authorities undisputed statutory dues including provident fund, income-tax, sales-tax, service tax, duty of custom, duty of excise, value added tax, goods and service tax, cess and other statutory dues applicable to it. The provisions relating to employees’ state insurance are not applicable to the Company.
- (b) According to the information and explanations given to us, no undisputed amounts payable in respect of provident fund, income-tax, service tax, sales-tax, duty of custom, duty of excise, value added tax, goods and service tax, cess and other statutory dues were outstanding, at the year end, for a period of more than six months from the date they became payable. The provisions relating to employees’ state insurance are not applicable to the Company.
- (c) According to the records of the Company, the dues outstanding of income-tax, sales-tax, service tax, duty of custom, duty of excise, value added tax and cess on account of any dispute, are as follows:

Name of the statute	Nature of the dues	Amount (₹ in Crore)*	Period (Financial year) to which amount relates	Forum where the dispute is pending
Income tax act, 1961	Income tax	1,657	1997-98, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2013-14	Commissioner of Income tax (Appeals)
		1,489	1988-89, 1989-90, 1990-91, 1992-93, 1997-98, 2007-08, 2012-13	Income tax appellate Tribunal
		1,324	1989-90, 1990-91, 1991-92, 1992-93, 1993-94, 1994-95, 1995-96, 1996-97, 1998-99, 1999-00, 2000-01, 2001-02, 2002-03, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11, 2011-12	High Court / Supreme Court
Customs Act, 1962	Customs duty	42	2008-09 to 2013-14	CESTAT

Name of the statute	Nature of the dues	Amount (₹ in Crore)*	Period (Financial year) to which amount relates	Forum where the dispute is pending
Central Excise Act, 1944	Excise duty	11	1991-92, 1995-96 to 2015-16	CESTAT
		11	1991-92, 1999-00 to 2003-04, 2005-06 to 2017-18	Commissioner (Appeals)
		1	1989-90 to 1992-93, 2002-03 to 2011-12	High Court
Rajasthan sales tax act, 1994	Sales tax	27	1985-86, 1990-91 to 1991-92, 1994- 95 to 2003-04, 2005-06 to 2014-15, 2017-18	Deputy Commissioner (Appeals)
		4	2007-08	High Court
Finance Act, 1994	Service tax	17	2006-07 to 2016-17	Commissioner (Appeals)
		25	1997-98, 2004-05 to 2015-16	CESTAT

\*Net of amount paid under protest / adjusted against refunds

- (viii) In our opinion and according to the information and explanations given by the management, the Company has not defaulted in repayment of loans or borrowing to financial institutions. The Company did not have any outstanding dues in respect of banks, government or debenture holders during the year.
- (ix) According to the information and explanations given by the management, the Company has not raised any monies by way of initial public offer / further public offer / debt instruments or term loans hence, reporting under clause 3(ix) is not applicable to the Company and hence not commented upon.
- (x) Based upon the audit procedures performed for the purpose of reporting the true and fair view of the financial statements and according to the information and explanations given by the management, we report that no material fraud on the Company by the officers and employees of the Company has been noticed or reported during the year.
- (xi) According to the information and explanations given by the management, the managerial remuneration has been paid / provided in accordance with the requisite approvals mandated by the provisions of section 197 read with Schedule V to the Act.
- (xii) In our opinion, the Company is not a nidhi company. Therefore, the provisions of clause 3(xii) of the Order are not applicable to the Company and hence not commented upon.
- (xiii) According to the information and explanations given by the management, transactions with the related parties are in compliance with section 177 and 188 of Act where applicable and the details have been disclosed in the

notes to the financial statements, as required by the applicable accounting standards.

- (xiv) According to the information and explanations given to us and on an overall examination of the balance sheet, the Company has not made any preferential allotment or private placement of shares or fully or partly convertible debentures during the year under review and hence, reporting requirements under clause 3(xiv) of the Order are not applicable to the Company and, not commented upon.
- (xv) According to the information and explanations given by the management, the Company has not entered into any non-cash transactions with directors or persons connected with him as referred to in section 192 of Act.
- (xvi) According to the information and explanations given to us, the provisions of section 45-IA of the Reserve Bank of India Act, 1934 are not applicable to the Company.

**For S.R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration Number: 301003E/E300005

**per Raj Agrawal**

Partner

Membership Number: 82028

Place: Gurugram

Date: April 30, 2018

# ANNEXURE 2

To the Independent Auditor's Report of Even Date on the Financial Statements of Hindustan Zinc Limited

## REPORT ON THE INTERNAL FINANCIAL CONTROLS UNDER CLAUSE (I) OF SUB-SECTION 3 OF SECTION 143 OF THE COMPANIES ACT, 2013 ("THE ACT")

We have audited, the internal financial controls over financial reporting of Hindustan Zinc Limited ("the Company") as of March 31, 2018 in conjunction with our audit of the Ind AS financial statements of the Company for the year ended on that date.

### MANAGEMENT'S RESPONSIBILITY FOR INTERNAL FINANCIAL CONTROLS

The Company's Management is responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established under the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) ('COSO 2013 criteria'), which considers the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the Company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Act.

### AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on the Company's internal financial controls over financial reporting based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") and the Standards on Auditing as specified under section 143(10) of the Act, to the extent applicable to an audit of internal financial controls, both issued by the Institute of Chartered Accountants of India. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained is sufficient

and appropriate to provide a basis for our audit opinion on the internal financial controls system over financial reporting.

### MEANING OF INTERNAL FINANCIAL CONTROLS OVER FINANCIAL REPORTING

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

### INHERENT LIMITATIONS OF INTERNAL FINANCIAL CONTROLS OVER FINANCIAL REPORTING

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

### OPINION

In our opinion, the Company has, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2018, based on the internal control over financial reporting in COSO 2013 criteria, considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

### For S.R. Batliboi & Co. LLP

Chartered Accountants

ICAI Firm Registration Number: 301003E/E300005

### per Raj Agrawal

Partner

Membership Number: 82028

Place: Gurugram

Date: April 30, 2018

# BALANCE SHEET

## AS AT MARCH 31, 2018

Particulars	Notes	(₹ in Crore)	
		As at March 31, 2018	As at March 31, 2017
<b>ASSETS</b>			
<b>Non-current assets</b>			
a) Property, Plant and Equipment	4	11,181	9,865
b) Capital work-in-progress	4	3,220	3,071
c) Intangible Assets	5	121	128
d) Investments in joint venture	33	-	-
e) Financial assets			
i) Loans	6	15	19
f) Deferred tax assets (net)	32	2,208	2,748
g) Other non-current assets	7	1,137	785
h) Income tax assets		907	530
<b>Total Non-current assets</b>		<b>18,789</b>	<b>17,146</b>
<b>Current assets</b>			
a) Inventories	8	1,379	1,936
b) Financial Assets			
i) Investments	9	20,222	23,783
ii) Trade receivables	10	184	136
iii) Cash and cash equivalents	11	173	189
iv) Other Bank balances	12	1,791	8,191
v) Loans	6	1	1
vi) Other	13	11	5
c) Other current assets	7	382	408
<b>Total Current assets</b>		<b>24,143</b>	<b>34,649</b>
<b>TOTAL</b>		<b>42,932</b>	<b>51,795</b>
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
a) Equity share capital	14	845	845
b) Other equity		35,087	29,960
<b>Total Equity</b>		<b>35,932</b>	<b>30,805</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
a) Financial liabilities			
i) Other financial liabilities	15	69	93
b) Other non-current liabilities	17	792	556
c) Provisions	16	134	111
<b>Total Non-current liabilities</b>		<b>995</b>	<b>760</b>
<b>Current liabilities</b>			
a) Financial liabilities			
i) Borrowings	18	-	7,908
ii) Trade payables	19	947	824
iii) Other financial liabilities	15	3,094	8,984
b) Other current liabilities	17	1,713	2,327
c) Provisions	16	86	17
d) Current tax liabilities		165	170
<b>Total Current liabilities</b>		<b>6,005</b>	<b>20,230</b>
<b>TOTAL</b>		<b>42,932</b>	<b>51,795</b>

See accompanying notes to financial statements.

As per our report on even date

For **S. R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration No.: 301003E/E300005

per **Raj Agrawal**

Partner

ICAI Membership No.: 82028

Date: April 30, 2018

Place: Gurugram

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO & Whole-time Director

DIN: 07291685

**Amitabh Gupta**

Chief Financial Officer

Date: April 30, 2018

Place: Mumbai

**A. R. Narayanaswamy**

Director

DIN: 00818169

**R. Pandwal**

Company Secretary

ICSI Membership No.: A9377



# STATEMENT OF PROFIT AND LOSS

FOR YEAR ENDED MARCH 31, 2018

(₹ in Crore)			
Particulars	Notes	For the year ended March 31, 2018	For the year ended March 31, 2017
Revenue from operations		22,084	17,273
Add: Excise duty		437	1,525
Revenue from operations	20	22,521	18,798
Other income	21	1,751	2,474
<b>Total Income</b>		<b>24,272</b>	<b>21,272</b>
<b>Expenses:</b>			
Cost of materials consumed	22	-	26
Purchase of traded goods		-	336
Changes in inventories of finished goods and work-in-progress	23	498	(676)
Employee benefits expense	24	776	722
Finance costs	25	283	202
Depreciation and amortization expense	26	1,483	1,811
Power and fuel		1,653	1,060
Mining Royalty		2,647	2,269
Excise duty		437	1,525
Other expenses	27	4,238	3,797
<b>Total expenses</b>		<b>12,015</b>	<b>11,072</b>
<b>Profit before exceptional item and tax</b>		<b>12,257</b>	<b>10,200</b>
Exceptional Items	28	240	-
<b>Profit before tax</b>		<b>12,497</b>	<b>10,200</b>
<b>Tax expense:</b>			
Current tax	32	2,647	2,196
Deferred tax (credit)/charge	32	574	(312)
<b>Total tax expenses</b>		<b>3,221</b>	<b>1,884</b>
<b>Profit for the year</b>		<b>9,276</b>	<b>8,316</b>
<b>Other comprehensive income</b>			
A) Items that will not be reclassified to profit or loss			
(a) Remeasurements of the defined benefit plans		3	(4)
(b) Tax benefit on items that will not be reclassified to profit or loss		(1)	1
B) Items that will be reclassified to profit or loss			
(a) Effective portion of gains and loss on designated portion of hedging instruments in a cash flow hedge		(95)	-
(b) Debt instrument through other comprehensive income		(23)	78
(c) Tax expenses on items that will be reclassified to profit or loss		36	(20)
<b>Total other comprehensive income</b>		<b>(80)</b>	<b>55</b>
<b>Total comprehensive income for the year</b>		<b>9,196</b>	<b>8,371</b>
<b>Earnings per share (nominal value of shares ₹2)</b>			
- Basic earnings per share (₹)	29	21.95	19.68
- Diluted earnings per share (₹)	29	21.95	19.68

See accompanying notes to financial statements.

As per our report on even date

For **S. R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration No.: 301003E/E300005

**per Raj Agrawal**

Partner

ICAI Membership No.: 82028

Date: April 30, 2018

Place: Gurugram

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO & Whole-time Director

DIN: 07291685

**Amitabh Gupta**

Chief Financial Officer

Date: April 30, 2018

Place: Mumbai

**A. R. Narayanaswamy**

Director

DIN: 00818169

**R. Pandwal**

Company Secretary

ICSI Membership No.: A9377

# STATEMENT OF CASH FLOW

## FOR THE YEAR ENDED MARCH 31, 2018

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>(A) CASH FLOW FROM OPERATING ACTIVITIES:</b>		
Net profit before tax	12,497	10,200
<b>Adjustments to reconcile profit to net cash provided by operating activities:</b>		
Depreciation and amortization expense	1,483	1,811
Interest expense	283	202
Interest income	(460)	(400)
Amortization of deferred revenue arising from government grant	(48)	(107)
Net gain on investments measured at FVTPL	(774)	(1,552)
Net Loss/(Gain) on sale of PPE	(2)	(11)
Net Loss/(Gain) on sale of financial asset investments	(340)	(415)
Reversal of DMF provision	(291)	-
Provision for mine restoration/decommissioning	23	90
<b>Operating profit before working capital changes</b>	<b>12,371</b>	<b>9,818</b>
<b>Changes in assets and liabilities</b>		
(Increase)/Decrease in Inventories	557	(878)
(Increase)/Decrease in Trade receivables	(48)	(29)
(Increase)/Decrease in Other current assets	20	61
(Increase)/Decrease in Other non current assets	(11)	(11)
Increase/ (Decrease) in Trade payables	124	274
Increase/(Decrease) in Other current liabilities	(173)	786
Increase/(Decrease) in non current liabilities	25	(95)
<b>Cash generated from operations</b>	<b>12,865</b>	<b>9,926</b>
Income taxes paid during the year	(3,028)	(2,338)
<b>Net cash generated from operating activities</b>	<b>9,837</b>	<b>7,588</b>
<b>(B) CASH FLOW FROM INVESTING ACTIVITIES:</b>		
Purchases of Property, Plant and Equipment (including intangibles, CWIP and Capital Advances)	(2,733)	(2,008)
Interest received	499	327
Proceeds from short term deposits	-	2
Inter-corporate loans given	-	(500)
Inter-corporate loans repaid	-	500
Purchase of current investments	(33,938)	(27,173)
Proceeds from sale of current investments	38,558	40,838
Proceeds from sale of Property, Plant and Equipment	10	21
<b>Net cash generated from investing activities</b>	<b>2,396</b>	<b>12,007</b>

(₹ in Crore)

Particulars	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>(C) CASH FLOW FROM FINANCING ACTIVITIES:</b>		
Interest and other finance charges paid	(280)	(194)
Proceeds from short term borrowings	12,325	15,772
Repayment of short term borrowings	(20,225)	(7,872)
Dividend and tax paid thereon	(10,469)	(18,972)
<b>Net cash used in financing activities</b>	<b>(18,649)</b>	<b>(11,266)</b>
Net increase /(Decrease) in Cash and cash equivalents	(6,416)	8,329
Cash and cash equivalents at the beginning of the year	8,380	51
<b>Cash and cash equivalents at the end of the year (Refer Note 11)</b>	<b>1,964</b>	<b>8,380</b>

**Note:-**

1. The figures in brackets indicates outflows.
2. The above cash flow has been prepared under "Indirect method" as set out in Indian Accounting Standard (Ind AS -7) Statement of Cash Flows.
3. There are no non cash changes in liabilities arising from financing activities.

See accompanying notes to financial statements.

As per our report on even date

For **S. R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration No.: 301003E/E300005

**per Raj Agrawal**

Partner

ICAI Membership No.: 82028

Date: April 30, 2018

Place: Gurugram

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO & Whole-time Director

DIN: 07291685

**Amitabh Gupta**

Chief Financial Officer

Date: April 30, 2018

Place: Mumbai

**A. R. Narayanaswamy**

Director

DIN: 00818169

**R. Pandwal**

Company Secretary

ICSI Membership No.: A9377

# STATEMENT OF CHANGES IN EQUITY

## FOR THE YEAR ENDED MARCH 31, 2018

### A. EQUITY SHARE CAPITAL

Equity shares of ₹2 each issued, subscribed and fully paid	Numbers of shares (in Crore)	₹ in Crore
As at March 31, 2018 and March 31, 2017	423	845

### B. OTHER EQUITY

Particulars	Reserve and surplus			Items of other comprehensive income		Total
	Capital Reserve	Retained earnings <sup>(1)</sup>	General reserve <sup>(2)</sup>	Effective portion of cash flow hedge	Debt instruments through OCI	
<b>Balance as at the end of the year March 31, 2016</b>	1	26,061	10,383	-	95	36,540
Profit for the year	-	8,316	-	-	-	8,316
Other comprehensive income net of tax	-	(3)	-	-	58	55
<b>Total comprehensive income for the year</b>	-	<b>8,313</b>	-	-	<b>58</b>	<b>8,371</b>
Dividend declared - Paid	-	(4,234)	-	-	-	(4,234)
Dividend distribution tax - Paid	-	(862)	-	-	-	(862)
Dividend declared - Unpaid	-	(8,188)	-	-	-	(8,188)
Dividend distribution tax paid on unpaid dividend	-	(1,667)	-	-	-	(1,667)
<b>Balance as at the beginning of the year April 01, 2017</b>	1	19,423	10,383	-	153	29,960
Profit for the year	-	9,276	-	-	-	9,276
Other comprehensive income net of tax	-	2	-	(62)	(20)	(80)
<b>Total comprehensive income for the year</b>	-	<b>9,278</b>	-	<b>(62)</b>	<b>(20)</b>	<b>9,196</b>
Dividend declared - Paid	-	(1,595)	-	-	-	(1,595)
Dividend distribution tax - Paid	-	(324)	-	-	-	(324)
Dividend declared - Unpaid	-	(1,786)	-	-	-	(1,786)
Dividend distribution tax paid on unpaid dividend	-	(364)	-	-	-	(364)
<b>Balance as at the end of the year March 31, 2018</b>	1	24,632	10,383	(62)	133	35,087

(1) During the year Company has declared interim dividend of ₹845 Crore (₹2.00 per share) in October 2017 and ₹2,535 Crore (₹6.00 per share) in March 2018. During the previous year Company had declared interim dividend of ₹803 Crore (₹1.90 per share) in November 2016 and ₹11,619 Crore (₹27.50 per share) special dividend in March 2017.

(2) General reserve: Under the erstwhile Companies Act 1956, general reserve was created through an annual transfer of net income at a specified percentage in accordance with applicable regulations. The purpose of these transfers was to ensure that if a dividend distribution in a given year is more than 10% of the paid-up capital of the Company for that year, then the total dividend distribution is less than the total distributable results for that year. Consequent to introduction of the Companies Act 2013, the requirement to mandatory transfer a specified percentage of the net profit to general reserve has been withdrawn. The balances in the general reserve, as determined in accordance with applicable regulations, was ₹10,383 Crore as at March 31, 2018 and March 31, 2017.

See accompanying notes to financial statements.

As per our report on even date

For **S. R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration No.: 301003E/E300005

per **Raj Agrawal**

Partner

ICAI Membership No.: 82028

Date: April 30, 2018

Place: Gurugram

For and on behalf of the Board of Directors

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Chief Financial Officer

Date: April 30, 2018

Place: Mumbai

**A. R. Narayanaswamy**

Director

DIN: 00818169

**R. Pandwal**

Company Secretary

ICSI Membership No.: A9377



# NOTES TO THE FINANCIAL STATEMENTS

## FOR THE YEAR ENDED MARCH 31, 2018

### 1. COMPANY OVERVIEW

Hindustan Zinc Limited ("HZL" or "the Company") was incorporated on January 10, 1966 and has its registered office at Yashad Bhawan, Udaipur (Rajasthan). HZL's shares are listed on National Stock Exchange and Bombay Stock Exchange. The Company is engaged in exploring, extracting and processing of minerals.

HZL's operations include five zinc-lead mines, four zinc smelters, one lead smelter, one zinc-lead smelter, seven sulphuric acid plants, one silver refinery plant and six captive power plants in the state of Rajasthan. In addition, HZL also has a rock-phosphate mine in Matoon, near Udaipur in Rajasthan and zinc, lead, silver processing and refining facilities in the state of Uttarakhand. The Company also has wind power plants in the states of Rajasthan, Gujarat, Karnataka, Tamil Nadu and Maharashtra and solar power plants in the state of Rajasthan.

### 2. BASIS OF PREPARATION OF FINANCIAL STATEMENTS

#### A) BASIS OF PREPARATION

These financial statements are prepared on a going concern basis, in accordance with Indian Accounting Standards (Ind AS) under the historical cost convention on the accrual basis except for financial instruments which are measured at fair values (Refer note 3(a) below) and the provisions of the Companies Act, 2013 ('Act') (to the extent notified). The Ind AS are prescribed under Section 133 of the Act read with Rule 3 of the Companies (Indian Accounting Standards) Rules, 2015, as amended.

Accounting policies have been consistently applied except where a newly issued accounting standard is initially adopted or a revision to an existing accounting standard requires a change in the accounting policy hitherto in use.

The financial statements were approved for issue by the Board of Directors on April 30, 2018.

#### B) CRITICAL ACCOUNTING ESTIMATE AND JUDGEMENT

The preparation of the financial statements in conformity with Ind AS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amount of assets, liabilities, income, expenses and disclosures of contingent liabilities at the date of these financial statements. Actual results may differ from these estimates under different assumptions and conditions.

The management believes that the estimates used in preparation of the financial statements are prudent and reasonable. Information about estimates and judgments made in applying accounting policies that have the

most significant effect on the amounts recognized in the financial statements are as follows:

#### Significant Estimates

##### (i) Mining property and Ore reserve

Ore reserves and mineral resource estimates are estimates of the amount of ore that can be economically and legally extracted from the Company's mining properties. The Company estimates its ore reserves and mineral resources based on information compiled by appropriately qualified persons relating to the geological and technical data on the size, depth, shape and grade of the ore body and suitable production techniques and recovery rates. Such an analysis requires complex geological judgements to interpret the data. The estimation of recoverable reserves is based upon factors such as estimates of foreign exchange rates, commodity prices, future capital requirements and production costs, along with geological assumptions and judgements made in estimating the size and grade of the ore body.

##### (ii) Restoration, rehabilitation and environmental costs:

Provision is made for costs associated with restoration and rehabilitation of mining sites as soon as the obligation to incur such costs arises. Such restoration and closure costs are typical of extractive industries and they are normally incurred at the end of the life of the mine or oil fields. The costs are estimated on the basis of mine closure plans and the estimated discounted costs of dismantling and removing these facilities and the costs of restoration are capitalized when incurred reflecting the Company's obligations at that time. The provision for decommissioning liabilities (Refer note 16) is based on the current estimate of the costs for removing and decommissioning producing facilities, the forecast timing of settlement of decommissioning liabilities and the appropriate discount rate.

##### (iii) Assessment of Useful lives and consumption pattern of Property, Plant and Equipments:

The Company reviews the useful lives and consumption pattern of Property, Plant and Equipment at the end of each reporting period. This reassessment may result in change in depreciation expense in future periods (Refer note 2(c) and 3(e)).

#### Significant Judgement

##### Contingencies:

In the normal course of business, contingent liabilities may arise from litigation, taxation and other claims

against the Company. Where it is management's assessment that the outcome cannot be reliably quantified or is uncertain, the claims are disclosed as contingent liabilities unless the likelihood of an adverse outcome is remote. Such liabilities are disclosed in the notes but are not provided for in the financial statements.

While considering the possible, probable and remote analysis of taxation, legal and other claims, there is always a certain degree of judgement involved pertaining to the application of the legislation which in certain cases is supported by views of tax experts and/or earlier precedents in similar matters. Although there can be no assurance regarding the final outcome of the legal proceedings, the Company does not expect them to have a materially adverse impact on the Company's financial position or profitability.

### C) CHANGES IN SIGNIFICANT ESTIMATES

#### Change in pattern of utilisation of plant and equipment.

The Company, basis an independent technical review and review of method of depreciation adopted by peer companies in the industry reassessed the method of charging depreciation basis actual economic benefits derived from asset and has decided to change the depreciation method for plant and equipment. Effective April 1, 2017, the method of depreciation on Plant and Equipment has been changed from Written Down Value Method to Straight Line Method on remaining useful life, resulting in lower depreciation charge of ₹690 Crore during the current year. Further, the Company has also re-evaluated some of the other parameters associated for depletion computation including reassessing life of certain components and cost to complete, which has resulted in an additional amortisation of ₹369 Crore and has adjusted the same in depletion calculation. The impact of the above changes in the estimates have resulted in a net decrease in depreciation charge of ₹321 Crore and lower profits after tax of ₹238 Crore for the year ended March 31, 2018.

## 3. SIGNIFICANT ACCOUNTING POLICIES

### A) FAIR VALUE MEASUREMENT

The Company measures financial instruments, such as, derivatives at fair value at each balance sheet date. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability, or
- In the absence of a principal market, in the most advantageous market for the asset or liability"

The principal or the most advantageous market must be accessible by the Company.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their best economic interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Company uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorized within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 - Quoted (unadjusted) market prices in active markets for identical assets or liabilities

Level 2 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable

Level 3 - Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable"

For the purpose of fair value disclosures, the Company has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

### B) CURRENT AND NON-CURRENT CLASSIFICATION

The Company presents assets and liabilities in the balance sheet based on current/ non-current classification.

An asset is treated as current when it is:

- Expected to be realized or intended to be sold or consumed in normal operating cycle
- Held primarily for the purpose of trading
- Expected to be realized within twelve months after the reporting period, or
- Cash or cash equivalent unless restricted from

being exchanged or used to settle a liability for at least twelve months after the reporting period "

All other assets are classified as non-current.

A liability is current when:

- It is expected to be settled in normal operating cycle
- It is held primarily for the purpose of trading
- It is due to be settled within twelve months after the reporting period, or
- There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period

The Company classifies all other liabilities as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

#### C) FUNCTIONAL AND PRESENTATION CURRENCY

The financial statements are prepared in Indian Rupees (INR), which is the Company's functional currency. All financial information presented in INR has been rounded to the nearest Crores.

#### D) REVENUE RECOGNITION

Revenue is recognized to the extent that it is probable that economic benefit will flow to the Company and the revenue can be reliably measured, regardless of when the payment is being made. Revenues are measured at the fair value of the consideration received or receivable, net of discounts, volume rebates, sales taxes, Goods and Service Tax and other indirect taxes excluding excise duty. Based on the Educational Material on Ind AS 18 issued by the ICAI, the Group has assumed that recovery of excise duty (applicable through June 30, 2017) flows to the group on its own account. This is for the reason that it is a liability of the manufacturer which forms part of the cost of production, irrespective of whether the goods are sold or not. Since the recovery of excise duty flows to Company on its own account, revenue includes excise duty. However, sales tax/ value added tax (VAT) / Goods and Service Tax (GST) is not received by the Company on its own account. Accordingly, it is excluded from revenue.

##### (i) Sale of goods

Revenues from sales are recognized when all significant risks and rewards of ownership of the goods sold are transferred to the customer which usually is on delivery of the goods to the shipping agent/passage of title to customer and it can be reliably measured and it is reasonable to expect

ultimate collection. Revenues from sale of by-products are included in revenue. Certain of the Company's sales contracts provide for provisional pricing based on the price on the London Metal Exchange ("LME"), as specified in the contract, when shipped. Final settlement of the price is based on the applicable price for a specified future period. The Company's provisionally priced sales are marked to market using the relevant forward prices for the future period specified in the contract and is adjusted in revenue. Revenue from operations comprises proceeds from sale of scrap net of disposal expenses.

##### (ii) Sale of wind energy

Revenue from sale of wind energy is recognized when delivered and measured based on rates as per bilateral contractual agreements with buyers and at rate arrived at based on the principles laid down under the relevant Tariff Regulations as notified by the regulatory bodies, as applicable.

##### (iii) Dividends

Dividend income is recognized in the statement of profit and loss only when the right to receive payment is established, provided it is probable that the economic benefits associated with the dividend will flow to the Company, and the amount of the dividend can be measured reliably.

##### (iv) Interest income

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Company and the amount of income can be measured reliably. Interest income is accrued on a time basis, by Reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

##### (v) Others

Revenue relating to insurance claims and interest on delayed or overdue payments from trade receivable is recognized when no significant uncertainty as to measurability or collection exists.

#### E) PROPERTY, PLANT AND EQUIPMENT

##### (i) Property, plant and equipment other than mining properties

The initial cost of property, plant and equipment comprises its purchase price, including import duties and non-refundable purchase taxes, and any directly attributable costs of bringing an asset to working condition and location for its intended

use. The present value of the expected cost for the decommissioning of an asset and mine restoration after its use is included in the cost of the respective asset if the recognition criteria for a provision are met. Expenditure incurred after the property, plant and equipment have been put into operation, such as repairs and maintenance, are normally charged to the Statement of Profit and Loss in the period in which the costs are incurred. Major inspection and overhaul expenditure is capitalized.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment, and are recognized net within other income/other expenses in the Statement of Profit and Loss.

Assets held for sale are carried at lower of their carrying value or fair value less cost to sell. Major machinery spares and parts are capitalized when they meet the definition of Property, Plant and Equipment.

The cost includes the cost of replacing part of the plant and equipment when significant part of plant and equipment are required to be replaced at intervals, the Company depreciates them separately based on their specific useful lives. All other repairs and maintenance cost are recognized in the Statement of Profit and Loss as incurred.

Government grant related to fixed asset is capitalized along with the asset that it relates to and depreciated over the life of the primary asset.

## (ii) Mining properties

The costs of mining properties, which include the costs of acquiring and developing mining properties are capitalized as Property, Plant and Equipment under the heading "Mining properties" in the year in which they are incurred. When a decision is taken that a Mining property is viable for commercial production (i.e. when the Company determines that the Mining Property will provide sufficient and sustainable return relative to the risks and the Company decided to proceed with the mine development), all further pre-production primary development expenditure other than land, buildings, plant and equipment is capitalized as developing asset until the mining property are capable of commercial production. Revenue derived during the project phase is adjusted from the cost incurred on the project from which such revenue is generated. With respect to open pit operations, waste removal costs that are incurred in the open pit operations during the operational phase of these mines which provide improved access are recognized as assets. The cost of normal on-going operational stripping

activities are recognized in the Statement of Profit and Loss as and when incurred.

When the benefit from the stripping costs are realized in the current period, the stripping costs are accounted as charge in statement of profit and loss account in deferred mining expenses head. Deferred stripping cost are included in mining properties within Property, Plant and Equipment and disclosed as a part of Mining properties. After initial recognition, the stripping activity asset is depreciated on a unit of production method over the expected useful life of the identified component of the ore body to which it improves access.

## (iii) Capital work in progress (CWIP)

Assets in the course of construction are capitalized in capital work in progress account. At the point when an asset is capable of operating in the manner intended by management, the cost of construction is transferred to the appropriate category of property, plant and equipment. Costs associated with the commissioning of an asset are capitalized in CWIP until the period of commissioning has been completed and the asset is ready for its intended use.

## (iv) Depreciation

Depreciable amount for assets is the cost of an asset, or other amount substituted for cost, less its estimated residual value. Depreciation on tangible property and other equipment has been provided on the straight-line method.

- Depreciation has been provided over useful life of the respective property, plant and equipment in respect of additions arising on account of insurance spares, on additions or extension forming an integral part of existing plants and on the revised carrying amount of assets identified as impaired.
- Mining properties are amortized, from the date on which they are first available for use, in proportion to the annual ore raised to the remaining commercial ore reserves (on a unit-of-production basis) over the total estimated remaining commercial reserves of each property or group of properties and are subject to impairment review. Commercial reserves are proved and probable reserves and any changes affecting unit of production calculations are dealt with prospectively over the revised remaining reserves. In the year of abandonment of mine, the residual balance in mining properties are written off. Costs used in the computation of unit of production comprises the net book value of



the capitalised costs plus the future estimated costs required to be incurred to access the commercial reserves.

- Based on technical evaluation, the management believes that the useful lives as given below best represent the period over which the management expects to use the asset.

Assets	Useful life in years
Factory buildings	30 years
Residential buildings	60 years
Roads (included in buildings)	5-10 years
Computers and data processing equipment	3-6 years
Plant and Equipment (Including captive power plant)	8 years to 40 years
Railway sidings	15 years
Office equipment	5 years
Furniture and fixtures	10 years
Vehicles	8-10 years

The useful lives of the above assets are in line with the useful lives as prescribed under Part C of schedule II of the Companies Act, 2013, except plant and equipment pertaining to wind energy segment. The Company based on technical assessment made by technical experts and basis management estimate, depreciates these assets over estimated useful lives over which the asset is expected to be used. The management believes that these estimated useful lives are realistic and reflect fair apportionment of the period over which the assets are likely to be used.

The residual values, useful lives and methods of depreciation of property, plant and equipment are reviewed at each financial year end and adjusted prospectively, if appropriate.

#### F) INTANGIBLE ASSETS

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses. Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the Statement of Profit and Loss when the asset is derecognized.

Intangible assets are amortized over their estimated useful life. Software is amortized on straight line method over the useful life of the asset or 5 years whichever is shorter. Amounts paid for securing mining rights are amortized over the period of mining lease. The estimated useful life of the intangible assets and the amortization

period are reviewed at the end of each financial year and the amortization period is revised to reflect the changed pattern, if any.

#### G) IMPAIRMENT OF NON-FINANCIAL ASSETS

Impairment charges and reversals are assessed at the level of cash-generating units. A cash-generating unit (CGU) is the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or group of assets.

Impairment tests are carried out annually for all assets when there is an indication of impairment. The Company conducts an internal review of asset values annually, which is used as a source of information to assess for any indications of impairment or reversal of previously recognized impairment losses. External factors, such as changes in expected future prices, costs and other market factors are also monitored to assess for indications of impairment or reversal of previously recognized impairment losses.

If any such indication exists then an impairment review is undertaken, the recoverable amount is calculated, as the higher of fair value less costs of disposal and the asset's value in use.

Fair value less costs of disposal is the price that would be received to sell the asset in an orderly transaction between market participants and does not reflect the effects of factors that may be specific to the entity and not applicable to entities in general. Fair value for mineral assets is generally determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset, including any expansion prospects, and its eventual disposal, using assumptions that an independent market participant may take into account. These cash flows are discounted at an appropriate post tax discount rate to arrive at the net present value.

Value in use is determined as the present value of the estimated future cash flows expected to arise from the continued use of the asset in its present form and its eventual disposal. The cash flows are discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which estimates of future cash flows have not been adjusted. Value in use is determined by applying assumptions specific to the Company's continued use and cannot take into account future development. These assumptions are different to those used in calculating fair value and consequently the value in use calculation is likely to give a different result to a fair value calculation.

The carrying amount of the CGU is determined on a basis consistent with the way the recoverable amount of the CGU is determined.

If the recoverable amount of an asset or CGU is estimated to be less than its carrying amount, the carrying amount of the asset or CGU is reduced to its recoverable amount. An impairment loss is recognized in the Statement of Profit and Loss.

Any reversal of the previously recognized impairment loss is limited to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had previously been recognized.

## H) FINANCIAL INSTRUMENTS

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

### Financial assets – recognition

All financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit and loss, transaction costs that are attributable to the acquisition of the financial asset. Purchases or sales of financial assets except treasury investment that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e., the date that the Company commits to purchase or sell the asset. Treasury investments are accounted for when the amount is settled in Bank account. For purposes of subsequent measurement, financial assets are classified in three categories:

- Debt instruments at amortized cost

A 'Debt instrument' is measured at the amortized cost if both the following conditions are met:

- The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and
- Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the Statement of Profit and Loss. The losses arising from impairment are recognized in the Statement of Profit and Loss. This category generally applies to trade and other receivables.

- Debt instruments at fair value through other comprehensive income (FVTOCI)

A 'debt instrument' is classified as at the FVTOCI if both of the following criteria are met:

- The objective of the business model is achieved both by collecting contractual cash flows and selling the financial assets, and
- The asset's contractual cash flows represent SPPI.

Debt instruments included within the FVTOCI category are measured initially as well as at each reporting date at fair value. Fair value movements are recognized in the other comprehensive income (OCI). However, the Company recognizes interest income, impairment losses and reversals and foreign exchange gain or loss in the profit and loss. On derecognition of the asset, cumulative gain or loss previously recognized in OCI is reclassified from the equity to profit and loss. Interest earned whilst holding FVTOCI debt instrument is reported as interest income using the EIR method.

- Debt instruments, derivatives and equity instruments at fair value through Statement of Profit or Loss (FVTPL)

FVTPL is a residual category for debt instruments. Any debt instrument, which does not meet the criteria for categorization as at amortized cost or as FVTOCI, is classified as at FVTPL.

In addition, the Company may elect to designate a debt instrument, which otherwise meets amortized cost or FVTOCI criteria, as at FVTPL. However, such election is allowed only if doing so reduces or eliminates a measurement or recognition inconsistency (Referred to as 'accounting mismatch'). The Company has not invested in any equity instruments.

Debt instrument included within the FVTPL category are measured at fair value with all changes recognized in the Statement of Profit and Loss.

### Financial assets - derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e. removed from the Company's balance sheet) when:

- The rights to receive cash flows from the asset have expired, or
- The Company has transferred its rights to receive cash flows from the asset or has assumed an

obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset."

When the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Company continues to recognize the transferred asset to the extent of the Company's continuing involvement. In that case, the Company also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

#### Impairment of financial assets

In accordance with Ind AS 109, the Company applies expected credit loss (ECL) model for measurement and recognition of impairment loss on the following financial assets:

- Financial assets that are debt instruments, and are measured at amortized cost e.g., loans, debt securities, deposits and trade receivables
- Financial assets that are debt instruments and are measured as at FVTOCI

The Company follows 'simplified approach' for recognition of impairment loss allowance on trade receivables.

The application of simplified approach does not require the Company to track changes in credit risk. Rather, it recognizes impairment loss allowance based on lifetime ECLs at each reporting date, right from its initial recognition.

For recognition of impairment loss on other financial assets and risk exposure, the Company determines whether there has been a significant increase in the credit risk since initial recognition. If credit risk has not increased significantly, 12-month ECL is used to provide for impairment loss. However, if credit risk has increased significantly, lifetime ECL is used. If, in a subsequent period, credit quality of the instrument improves such that there is no longer a significant increase in credit risk since initial recognition, then the Company reverts to recognizing impairment loss allowance based on 12-month ECL.

Lifetime ECL are the expected credit losses resulting from all possible default events over the expected life of a financial instrument. The 12-month ECL is a portion of the lifetime ECL which results from default events that are possible within 12 months after the reporting date.

ECL is the difference between all contractual cash flows that are due to the Company in accordance with the contract and all the cash flows that the entity expects to receive (i.e. all cash shortfalls), discounted at the original EIR.

ECL impairment loss allowance (or reversal) recognized during the period is recognized as income/ expense in the Statement of Profit and Loss (P&L). This amount is reflected under the head 'other expenses' in the P&L. The balance sheet presentation for various financial instruments is described below:

- Financial assets measured as at amortized cost: ECL is presented as an allowance, i.e., as an integral part of the measurement of those assets in the balance sheet. The allowance reduces the net carrying amount. Until the asset meets write-off criteria, the Company does not reduce impairment allowance from the gross carrying amount.
- Debt instruments measured at FVTOCI: Since financial assets are already reflected at fair value, impairment allowance is not further reduced from its value. Rather, ECL amount is presented as 'accumulated impairment amount' in the OCI.

For assessing increase in credit risk and impairment loss, the Company's financial instruments on the basis of shared credit risk characteristics with the objective of facilitating an analysis that is designed to enable significant increases in credit risk to be identified on a timely basis.

#### Financial liabilities – recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Company's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts and derivative financial instruments.

#### Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

- **Financial liabilities at fair value through profit or loss**

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Company that are not designated as hedging instruments in hedge relationships as defined by Ind AS 109. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in the profit or loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated as such at the initial date of recognition, and only if the criteria in Ind AS 109 are satisfied. For liabilities designated as FVTPL, fair value gains/losses attributable to changes in own credit risk are recognized in OCI. These gains/loss are not subsequently transferred to Statement of Profit and Loss. However, the Company may transfer the cumulative gain or loss within equity. All other changes in fair value of such liability are recognized in the Statement of Profit and Loss.

- **Financial Liabilities at amortized cost (Loans and borrowings)**

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the Statement of Profit and Loss.

**Financial liabilities - derecognition**

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the

respective carrying amounts is recognized in the Statement of Profit and Loss.

**Embedded derivatives**

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. An embedded derivative causes some or all of the cash flows that otherwise would be required by the contract to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through Profit or Loss.

If the hybrid contract contains a host that is a financial asset within the scope of Ind AS 109, the Company does not separate embedded derivatives. Rather, it applies the classification requirements contained in Ind AS 109 to the entire hybrid contract. Derivatives embedded in all other host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts and the host contracts are not held for trading or designated at fair value through Profit or Loss. These embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss, unless designated as effective hedging instruments.

**Reclassification of financial assets**

The Company determines classification of financial assets and liabilities on initial recognition. After initial recognition, no reclassification is made for financial assets which are equity instruments and financial liabilities. For financial assets which are debt instruments, a reclassification is made only if there is a change in the business model for managing those assets. Changes to the business model are expected to be infrequent. The senior management determines change in the business model as a result of external or internal changes which are significant to the group's operations. Such changes are evident to external parties. A change in the business model occurs when the group either begins or ceases to perform an activity that is significant to its operations. If the Company reclassifies financial assets, it



applies the reclassification prospectively from the reclassification date which is the first day of the immediately next reporting period following the change in business model. The Company does not restate any previously recognized gains, losses (including impairment gains or losses) or interest.

#### Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

### I) DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGE ACCOUNTING

#### Initial recognition and subsequent measurement

In order to hedge its exposure to foreign exchange, interest rate, and commodity price risks, the Company enters into forward currency contracts, commodity contracts and other derivative financial instruments. The Company does not hold derivative financial instruments for speculative purposes.

Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Any gains or losses arising from changes in the fair value of derivatives are taken directly to profit or loss, except for the effective portion of cash flow hedges, which is recognized in OCI and later reclassified to profit or loss when the hedge item affects profit or loss or treated as basis adjustment if a hedged forecast transaction subsequently results in the recognition of a non-financial asset or non-financial liability.

For the purpose of hedge accounting, hedges are classified as:

- Fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment
- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment

At the inception of a hedge relationship, the Company formally designates and documents the hedge relationship to which the Company wishes to apply hedge accounting and the risk management

objective and strategy for undertaking the hedge. The documentation includes the Company's risk management objective and strategy for undertaking hedge, the hedging/ economic relationship, the hedged item or transaction, the nature of the risk being hedged, hedge ratio and how the entity will assess the effectiveness of changes in the hedging instrument's fair value in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Such hedges are expected to be highly effective in achieving offsetting changes in fair value or cash flows and are assessed on an on-going basis to determine that they actually have been highly effective throughout the financial reporting periods for which they were designated.

Hedges that meet the strict criteria for hedge accounting are accounted for, as described below:

#### (i) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

If the hedged item is derecognized, the unamortized fair value is recognized immediately in profit or loss. When an unrecognized firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognized as an asset or liability with a corresponding gain or loss recognized in the Statement of Profit and Loss.

#### (ii) Cash flow hedges

The effective portion of the gain or loss on the hedging instrument is recognized in OCI in the cash flow hedge reserve, while any ineffective portion is recognized immediately in the Statement of Profit and Loss.

Amounts recognized as OCI are transferred to Statement of Profit and Loss when the hedged transaction affects profit or loss, such as when the hedged financial income or financial expense is recognized or when a forecast sale occurs. When the hedged item is the cost of a non-financial asset or non-financial liability, the amounts recognized as OCI are transferred to the initial carrying amount of the non-financial asset or liability.

If the hedging instrument expires or is sold, terminated or exercised without replacement or rollover (as part of the hedging strategy), or if its designation as a hedge is revoked, or when the

hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss previously recognized in OCI remains separately in equity until the forecast transaction occurs or the foreign currency firm commitment is met.

#### J) GOVERNMENT GRANTS, SUBSIDIES AND EXPORT INCENTIVES

Grants and subsidies from the government are recognized when there is reasonable assurance that (i) the Company will comply with the conditions attached to them, and (ii) the grant/subsidy will be received.

When the grant or subsidy relates to revenue, it is recognized as income on a systematic basis in the Statement of Profit and Loss over the periods necessary to match them with the related costs, which they are intended to compensate.

Where the grant relates to an asset, it is recognized as deferred income and released to income in equal amounts over the expected useful life of the related asset and presented within other income.

When the Company receives grants of non-monetary assets, the asset and the grant are recorded at fair value amounts and released to profit or loss over the expected useful life in a pattern of consumption of the benefit of the underlying asset i.e. by equal annual instalments.

When loans or similar assistance are provided by governments or related institutions, with an interest rate below the current applicable market rate, the effect of this favourable interest is regarded as a government grant. The loan or assistance is initially recognized and measured at fair value and the government grant is measured as the difference between the initial carrying value of the loan and the proceeds received. The loan is subsequently measured as per the accounting policy applicable to financial liabilities.

#### K) INVENTORIES

Inventories are valued at the lower of cost and net realizable value, less any provision for obsolescence.

Costs incurred in bringing each product to its present location and condition are accounted for as follows:

- (i) Ore, concentrate (mined metal), work-in-progress and finished goods (including significant by-products i.e. silver) are valued at lower of cost or net realizable value on weighted average basis.
- (ii) Stores and spares are valued at lower of cost or net realizable value on weighted average basis.
- (iii) Immaterial by-products, aluminium scrap, chemical lead scrap, anode scrap and coke fines are valued at net realizable value.

Net realizable value is determined based on estimated selling price, less further costs expected to be incurred to completion and disposal.

#### L) TAXATION

##### Current tax

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted, at the reporting date.

Current income tax relating to items recognized outside profit or loss is recognized outside profit or loss (either in other comprehensive income or in equity). Current tax items are recognized in correlation to the underlying transaction either in OCI or directly in equity. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

##### Deferred tax

Deferred tax is provided, using the balance sheet method, on all temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- When the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future

Deferred tax assets are recognized for all deductible temporary differences, the carry forward of unused tax credits and any unused tax losses. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilized, except:

- When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a

transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are re-assessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Tax relating to items recognized outside profit or loss is recognized outside profit or loss (either in other comprehensive income or in equity).

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

## M) RETIREMENT AND OTHER EMPLOYEE BENEFIT SCHEMES

### i. Short-term employee benefits

Employee benefits payable wholly within twelve months of receiving employee services are classified as short-term employee benefits. These benefits include salaries and wages, performance incentives and compensated absences which are expected to occur in next twelve months. The undiscounted amount of short-term employee benefits to be paid in exchange for employee services is recognized as an expense as the related service is rendered by employees.

### ii. Post-Employment Benefits

#### Gratuity

In accordance with the Payment of Gratuity Act of

1972, the Company contributes to a defined benefit plan (the "Gratuity Plan"). The Gratuity Plan provides a lump sum payment to employees who have completed at least 5 years of service; at retirement, disability or termination of employment being an amount equal to 15 days' salary (based on the respective employee's last drawn salary) for every completed year of service.

Based on actuarial valuations conducted as at year end, a provision is recognized in full for the benefit obligation over and above the funds held in the Gratuity Plan.

In respect of defined benefit schemes, the assets are held in separately administered funds. In respect of defined benefit schemes, the cost of providing benefits under the plans is determined by actuarial valuation separately each year using the projected unit credit method by independent qualified actuary as at the year end.

Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognized immediately in the balance sheet with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Re-measurements are not reclassified to the Statement of Profit and Loss in subsequent periods.

The Company recognizes the following changes in the net defined benefit obligation as an expense in the Statement of Profit and Loss:

- Service costs comprising current service costs, past-service costs, gains and losses on curtailments and non-routine settlements; and
- Net interest expense or income

#### Provident Fund

The Company offers retirement benefits to its employees, under provident fund scheme which is a defined benefit plan. The Company and employees contribute at predetermined rates to 'Hindustan Zinc Limited Employee's Contributory Provident Fund' ('Trust') accounted on accrual basis and the conditions for grant of exemption stipulate that the employer shall make good the deficiency, if any, between the return guaranteed by the statute and actual earning of the Trust. The contribution towards provident fund is recognized as an expense in the Statement of Profit and Loss.

**Family Pension**

The Company offers its employees benefits under defined contribution plans in the form of family pension scheme. Contributions are paid during the year into the fund under statutory arrangements. The contribution to family pension fund is made at predetermined rates by the Company based on prescribed rules of family pension scheme. The contribution towards family pension is recognized as an expense in the Statement of Profit and Loss. The Company has no further obligation other than the contribution made.

**Superannuation**

Certain employees of the Company, who have joined post disinvestment are members of the Superannuation plan. The Company has no further obligations to the Plan beyond its monthly contributions which are periodically contributed to a trust fund, the corpus of which is invested with the Life Insurance Corporation of India. The contribution is recognized as an expense in the Statement of Profit and Loss.

**iii. Other Long-Term Employee Benefits****Compensated absences**

The Company has a policy on compensated absences which are both accumulating and non-accumulating in nature. The expected cost of accumulating compensated absences is determined by actuarial valuation performed by an independent actuary at each balance sheet date using projected unit credit method on the additional amount expected to be paid/availed as a result of the unused entitlement that has accumulated at the balance sheet date. Expense on non-accumulating compensated absences is recognized in the period in which the absences occur. Actuarial differences are recognised immediately in the Statement of Profit and Loss.

**N) PROVISION**

Provisions are recognized when the Company has a present obligation (legal or constructive), as a result of past events, and it is probable that an outflow of resources, that can be reliably estimated, will be required to settle such an obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows to net present value using an appropriate pre-tax discount rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability. Unwinding of the discount is recognized in the Statement of Profit and Loss as a finance cost. Provisions are reviewed at each reporting date and are adjusted to reflect the current best estimate.

**(i) Provision for Decommissioning**

The Company recognizes a provision for decommissioning costs of smelting and refining facilities. Decommissioning costs are provided at the present value of expected costs to settle the obligation using estimated cash flows and are recognized as part of the cost of the particular asset. The cash flows are discounted at pre-tax rate that reflects current market assessment of time value of money and the risks specific to the liability. The unwinding of the discount is expensed as incurred and recognized in the Statement of Profit and Loss as a finance cost. Changes in the estimated future costs or in the discount rate applied are added to or deducted from the cost of the asset.

The Company recognizes provision for discontinuing of a smelting operation which is charged to the Statement of profit and loss. Management estimates are based on third party technical estimates. The actual costs and cash outflows may differ from estimates because of changes in laws and regulations, changes in prices, analysis of site conditions and changes in restoration technology. The estimated future costs of decommissioning are reviewed annually and adjusted as appropriate.

**(ii) Provision for Restoration, rehabilitation and environmental costs**

An obligation to incur restoration, rehabilitation and environmental costs arises when environmental disturbance is caused by the development or on-going production of a mine. Such costs, discounted to net present value, are provided for and a corresponding amount is capitalized at the start of each project as mining properties, as soon as the obligation to incur such costs arises. These costs are charged to the Statement of Profit and Loss over the life of the operation through the depreciation of the asset and the unwinding of the discount on the provision (considered as finance cost). The cost of the related asset is adjusted for changes in the provision due to factors such as updated cost estimates, changes to lives of operations, new disturbance and revisions to discount rates. The adjusted cost of the asset is depreciated prospectively over the lives of the assets to which they relate as per the depreciation policy.

Costs for the restoration of subsequent site damage, which is caused on an on-going basis during production, are charged to the Statement of Profit and Loss as extraction progresses. Where the costs of site restoration are not anticipated to be material, they are expensed as incurred.



**O) FOREIGN CURRENCY TRANSLATION**

The functional currency for the Company is determined as the currency of the primary economic environment in which it operates. For the Company, the functional currency is the local currency of the country in which it operates, which is Indian Rupee.

In the financial statements of the Company, transactions in currencies other than the functional currency are translated into the functional currency at the exchange rates ruling at the date of the transaction. Monetary assets and liabilities denominated in other currencies are translated into the functional currency at exchange rates prevailing on the reporting date. Non-monetary assets and liabilities denominated in other currencies and measured at historical cost or fair value are translated at the exchange rates prevailing on the dates on which such values were determined.

All exchange differences are included in the Statement of Profit and Loss except any exchange differences on monetary items designated as an effective hedging instrument of the currency risk of designated forecasted sales or purchases, which are recognized in the other comprehensive income.

**P) EARNINGS PER SHARE**

The Company presents basic and diluted earnings per share ("EPS") data for its equity shares. Basic EPS is calculated by dividing the profit or loss attributable to equity shareholders of the Company by the weighted average number of equity shares outstanding during the period. Diluted EPS is determined by adjusting the profit or loss attributable to equity shareholders and the weighted average number of equity shares outstanding for the effects of all dilutive potential equity shares.

**Q) SEGMENT REPORTING**

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Operating Decision-Maker i.e. CEO. Revenue and expenses are identified to segments on the basis of their relationship to the operating activities of the segment. Revenue, expenses, assets and liabilities which are not allocable to segments on a reasonable basis, are included under "Unallocated revenue/ expenses/ assets/ liabilities".

**R) LEASES**

The determination of whether an arrangement is (or contains) a lease is based on the substance of the arrangement at the inception of the lease. The arrangement is, or contains, a lease if fulfilment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset or assets, even if that right is not explicitly specified in an arrangement.

**Company as a lessee**

A lease is classified at the inception date as a finance lease or an operating lease. A lease that transfers substantially all the risks and rewards incidental to ownership to the Company is classified as a finance lease. Finance leases are capitalized at the commencement of the lease at the inception date fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognized as finance costs in the Statement of Profit and Loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Company's general policy on the borrowing costs. Contingent rentals are recognized as expenses in the periods in which they are incurred. Operating lease payments are recognized as an expense in the Statement of Profit and Loss on a straight-line basis over the lease term.

**Company as a lessor**

Leases in which the Company does not transfer substantially all the risks and rewards of ownership of an asset are classified as operating leases. Rental income from operating lease is recognized on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognized over the lease term on the same basis as rental income. Contingent rents are recognized as revenue in the period in which they are earned.

**S) CASH AND CASH EQUIVALENTS**

Cash and cash equivalents comprise cash at bank and on hand and short-term money market deposits with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value.

For the purpose of the statement of cash flows, cash and cash equivalents consist of cash and short-term deposits, as defined above and additionally includes unpaid dividend account.

**T) INVESTMENT IN JOINT VENTURE**

Investments representing equity interest in joint ventures are carried at cost. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

**Standards issued but not effective**

The amendments to standards that are issued, but not yet effective, up to the date of issuance of the Company's financial statements are disclosed below. The Company intends to adopt these standards, if applicable, when they become effective.

The Ministry of Corporate Affairs (MCA) has issued the Companies (Indian Accounting Standards) Amendment Rules, 2017 and Companies (Indian Accounting Standards) Amendment Rules, 2018 introducing/amending the following standards:

**Ind AS 115 - Revenue from Contracts with Customers**

Ind AS 115 was issued on March, 29 2018 and establishes a five-step model to account for revenue arising from contracts with customers. Under Ind AS 115, revenue is recognised at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

The new revenue standard will supersede all current revenue recognition requirements under Ind AS. Either a full retrospective application or a modified retrospective application is required for annual periods beginning on or after April 1, 2018. The Company plans to adopt the new standard on the required effective date using the modified retrospective method. During 2017-18, the Company performed a detailed assessment of Ind AS 115 to determine the impact on its financial statement. On the basis of the analysis conducted, the new standard would result in identification of freight and insurance services as a separate performance obligation implying segregation of revenue on account of sale of goods and sale of services. The revenue on account of these services is required to be deferred and recognised over time as this obligation is fulfilled along with associated costs.

The overall effect of implementation of Ind AS 115 is not expected to be material on the recognition and measurement of revenues, though there would be additional disclosure requirements to comply with.

**Amendments to Ind AS 12 - Recognition of Deferred Tax Assets for Unrealised Losses**

The amendments clarify that an entity needs to consider whether tax law restricts the sources of taxable profits against which it may make deductions on the reversal of that deductible temporary difference. Furthermore, the amendments provide guidance on how an entity should determine future taxable profits and explain the circumstances in which taxable profit may include the recovery of some assets for more than their carrying amount.

Entities are required to apply the amendments retrospectively. However, on initial application of the amendments, the change in the opening equity of the earliest comparative period may be recognised in opening retained earnings (or in another component of equity, as appropriate), without allocating the change between opening retained earnings and other components of equity. Entities applying this relief must disclose that fact.

These amendments are effective for annual periods beginning on or after April 1, 2018. These amendments are not expected to have any impact on the Company as the Company has no deductible temporary differences or assets that are in the scope of the amendments.

**Amendments to Ind AS 40 - Transfers of Investment Property**

The amendments clarify when an entity should transfer property, including property under construction or development into, or out of investment property. The amendments state that a change in use occurs when the property meets, or ceases to meet, the definition of investment property and there is evidence of the change in use. A mere change in management's intentions for the use of a property does not provide evidence of a change in use.

Entities should apply the amendments prospectively to changes in use that occur on or after the beginning of the annual reporting period in which the entity first applies the amendments. An entity should reassess the classification of property held at that date and, if applicable, reclassify property to reflect the conditions that exist at that date. Retrospective application in accordance with Ind AS 8 is only permitted if it is possible without the use of hindsight.

The amendments are effective for annual periods beginning on or after April 1, 2018. These amendments are not expected to have any impact on the Company as the Company does not have assets that are in the scope of the amendments.

**Appendix B to Ind AS 21 - Foreign Currency Transactions and Advance Consideration**

The Appendix clarifies that, in determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which an entity initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, then the entity must determine the transaction date for each payment or receipt of advance consideration.

Entities may apply the Appendix requirements on a fully retrospective basis. Alternatively, an entity may apply these requirements prospectively to all assets, expenses and income in its scope that are initially recognised on or after:

- (i) The beginning of the reporting period in which the entity first applies the Appendix, or
- (ii) The beginning of a prior reporting period presented as comparative information in the financial statements of the reporting period in which the entity first applies the Appendix.

The Appendix is effective for annual periods beginning on or after April 1, 2018. The Company's current accounting practice is already in line with the aforesaid clarification.

## 4. PROPERTY, PLANT AND EQUIPMENT

Particulars	(₹ in Crore)										Total	
	Freehold land	Buildings	Plant and equipment <sup>(1)</sup>	Furniture and fixtures	Vehicles	Office equipment	Railway siding	Mining properties <sup>(2)</sup>				
<b>At Cost</b>												
<b>As at April 1, 2016</b>	258	1,339	13,227	28	32	202	85	1,197				16,368
Additions	1	41	822	1	4	13	-	530				1,412
Disposals/ adjustments	-	46	53	-	2	2	1	(53)				51
<b>As at March 31, 2017</b>	<b>259</b>	<b>1,334</b>	<b>13,996</b>	<b>29</b>	<b>34</b>	<b>213</b>	<b>84</b>	<b>1,780</b>				<b>17,729</b>
Additions	37	59	1,567	2	7	24	9	1,097				2,802
Disposals/ adjustments	-	1	50	-	3	2	(1)	-				55
<b>As at March 31, 2018</b>	<b>296</b>	<b>1,392</b>	<b>15,513</b>	<b>31</b>	<b>38</b>	<b>235</b>	<b>94</b>	<b>2,877</b>				<b>20,476</b>
<b>Accumulated depreciation</b>												
<b>As at April 1, 2016</b>	-	252	5,417	16	17	160	13	228				6,103
Depreciation charge for the year	-	56	1,433	3	1	13	5	289				1,800
Disposals/ adjustments	-	4	33	-	1	1	-	-				39
<b>As at March 31, 2017</b>	<b>-</b>	<b>304</b>	<b>6,817</b>	<b>19</b>	<b>17</b>	<b>172</b>	<b>18</b>	<b>517</b>				<b>7,864</b>
Depreciation charge for the year <sup>(4)</sup>	-	54	674	2	4	15	5	726				1,480
Disposals/ adjustments	-	-	45	-	1	2	1	-				49
<b>As at March 31, 2018</b>	<b>-</b>	<b>358</b>	<b>7,446</b>	<b>21</b>	<b>20</b>	<b>185</b>	<b>22</b>	<b>1,243</b>				<b>9,295</b>
Net Book Value												
<b>As at March 31, 2018</b>	<b>296</b>	<b>1,034</b>	<b>8,067</b>	<b>10</b>	<b>18</b>	<b>50</b>	<b>72</b>	<b>1,634</b>				<b>11,181</b>
<b>As at March 31, 2017</b>	<b>259</b>	<b>1,030</b>	<b>7,179</b>	<b>10</b>	<b>17</b>	<b>41</b>	<b>66</b>	<b>1,263</b>				<b>9,865</b>



**Capital work in progress<sup>(3)</sup>**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Carrying amount of Capital work in progress	3,220	3,071

- (1) The Company has revised certain estimates relating to depreciation of property, plant and equipment leading to a net reduction in depreciation of ₹321 Crore, Refer note 2 (c).
- (2) Additions to mining properties includes deferred stripping cost of ₹44 Crore (March 31, 2017: ₹21 Crore).
- (3) During the year, the Company has transferred the following expenses which are attributable to the construction activity and are included in the cost of capital work in progress (CWIP). Consequently, expenses disclosed under the respective notes are net of such amounts.

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Cost of Material Consumed	1,204	1,352
Power & fuel charges	29	32
Repairs & Others	75	51
Consumption of stores & Spare parts	76	42
Employee Benefit Expenses	43	28
General Expenses	3	4
Insurance	2	2
Conveyance & travelling expenses	1	1
Finance Cost	1	1
<b>Total</b>	<b>1,435</b>	<b>1,512</b>

- (4) During the year, the Company has capitalised depreciation attributable to certain asset development of ₹10 Crore. Accordingly, depreciation reported in note 26 is ₹1,470 Crore.

**5. INTANGIBLE ASSETS**

Particulars	Computer software	Mining rights	Right to use asset (Refer note 34)	(₹ in Crore)	
				Total	
<b>At Cost</b>					
<b>As at April 1, 2016</b>	27	67	62	<b>156</b>	
Additions	13	-	6	19	
Disposals	-	-	-	-	
<b>As at March 31, 2017</b>	<b>40</b>	<b>67</b>	<b>68</b>	<b>175</b>	
Additions	5	-	1	6	
Disposals	-	-	-	-	
<b>As at March 31, 2018</b>	<b>45</b>	<b>67</b>	<b>69</b>	<b>181</b>	
<b>Amortization</b>					
<b>As at April 1, 2016</b>	22	9	5	<b>36</b>	
Charge for the year	4	4	3	11	
<b>As at March 31, 2017</b>	<b>26</b>	<b>13</b>	<b>8</b>	<b>47</b>	
Charge for the year	6	4	3	13	
<b>As at March 31, 2018</b>	<b>32</b>	<b>17</b>	<b>11</b>	<b>60</b>	
<b>Net Book Value</b>					
<b>As at March 31, 2018</b>	<b>13</b>	<b>50</b>	<b>58</b>	<b>121</b>	
<b>As at March 31, 2017</b>	<b>14</b>	<b>54</b>	<b>60</b>	<b>128</b>	

**6. LOANS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Non-current</b>		
<b>Unsecured, considered good</b>		
Loans to employees	1	2
Security deposits	14	17
<b>Total</b>	<b>15</b>	<b>19</b>
<b>Current</b>		
<b>Unsecured, considered good</b>		
Loans to employees	1	1
<b>Total</b>	<b>1</b>	<b>1</b>

**7. OTHER ASSETS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Non-current</b>		
<b>Unsecured, considered good</b>		
Capital advances	767	430
Claims and other receivables <sup>(1)</sup>	197	179
Security Deposits	35	35
Prepayments <sup>(2)</sup>	138	141
<b>Total</b>	<b>1,137</b>	<b>785</b>
<b>Unsecured, considered doubtful</b>		
Claims and other receivables	11	34
Security deposits	28	28
Provision on doubtful deposits and claims	(39)	(62)
	-	-
<b>Total</b>	<b>1,137</b>	<b>785</b>
<b>Current</b>		
<b>Unsecured, considered good</b>		
Advance given to vendors for supply of goods and services	251	127
Prepayments <sup>(2)</sup>	25	21
Balance with government authorities	30	195
Export incentive receivable	76	65
<b>Total</b>	<b>382</b>	<b>408</b>

(1) Includes ₹101 Crore as at March 31, 2018 (March 31, 2017: ₹101 Crore) paid under protest on account of Entry tax dispute (see note 30). Balance pertains to Indirect taxes and royalty deposited under dispute with respect to various matters currently litigated in court of law and at various levels of adjudication.

(2) Includes ₹138 Crore (Non current) and ₹4.5 Crore (Current) prepayments in respect of land taken under operating leases, being amortised equally over the period of the lease.

**8. INVENTORIES\***

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
a. Raw material	1	-
b. Work in progress		
Ore <sup>(1)</sup>	141	307
Mined Metal	270	525
Others	288	334
c. Finished goods <sup>(1)</sup>	23	54
d. Fuel Stock	175	61
[Including goods in transit ₹108 Crore (March 31, 2017: Nil)]		
e. Stores and spare parts	481	655
[Including goods in transit ₹6 Crore (March 31, 2017: ₹278 Crore)]		
<b>Total</b>	<b>1,379</b>	<b>1,936</b>

\* For method of valuation of inventories, Refer note 3(k)

(1) Inventory held at net realizable value amounted to ₹18 Crore (March 31, 2017: ₹24 Crore). The write down on this inventory Nil (March 31, 2017: ₹9 Crore) has been taken to Statement of Profit and Loss.

**9. INVESTMENTS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Investment in bonds-quoted	1,580	1,829
Investment in zero coupon bonds- quoted	3,496	2,618
Investment in mutual funds-quoted	9,775	12,167
Investment in mutual funds-unquoted	5,371	7,169
<b>Total</b>	<b>20,222</b>	<b>23,783</b>
Measured at fair value through other comprehensive income	2,803	4,447
Measured at fair value through profit and loss	17,419	19,336
Aggregate amount of quoted investment at market value thereof	14,851	16,614
Aggregate amount of unquoted investment	5,371	7,169

**10. TRADE RECEIVABLES<sup>(1)(3)</sup>**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Unsecured, considered good <sup>(2)</sup>	184	136
Unsecured, considered doubtful	1	1
Provision on doubtful debts	(1)	(1)
<b>Total</b>	<b>184</b>	<b>136</b>

(1) The average credit period given to customer ranges from zero to ninety days. Interest is charged on trade receivables for the credit period, from the date of the invoice at 8.5% to 14.50% per annum on the outstanding balance.

(2) Unsecured considered good includes, ₹69 Crore (March 31, 2017: ₹124 Crore) due from wind energy segment's trade receivables. Unsecured trade receivable of ₹82 Crore (March 31, 2017: ₹12 Crore) are covered against Letter of credit and Bank Guarantees.

(3) Refer note 38 for details of related party balances and terms and conditions.

**11. CASH AND CASH EQUIVALENTS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Balances with banks		
On current accounts	173	189
<b>Total</b>	<b>173</b>	<b>189</b>
For the purpose of statement of cash flows, cash and cash equivalents comprises the following:		
Cash and cash equivalents as above	173	189
Earmarked unpaid dividend account (Refer note 12)	1,791	8,191
<b>Total</b>	<b>1,964</b>	<b>8,380</b>

**12. OTHER BANK BALANCES**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Earmarked unpaid dividend accounts	1,791	8,191
<b>Total</b>	<b>1,791</b>	<b>8,191</b>

**13. OTHER FINANCIAL ASSETS - CURRENT**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Unsecured, Considered Good</b>		
Interest accrued on deposits	3	3
Derivative assets (Refer note 36)	8	2
<b>Total</b>	<b>11</b>	<b>5</b>

**14. EQUITY SHARE CAPITAL**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>A. Authorized equity share capital</b>		
Equity shares of ₹2 (March 31, 2017: ₹2) each.	1,000	1,000
No. of Shares (in Crore)	500	500
<b>B. Issued, subscribed and paid up</b>		
Equity shares of ₹2 (March 31, 2017: ₹2) each.	845	845
No. of Shares (in Crore)	423	423
<b>C. Equity shares held by Holding Company</b>		
Vedanta Limited		
No. of Shares (in Crore)	274	274
% of Holding	64.92%	64.92%
<b>D. No shares issued for consideration other than cash and shares bought back during the period of five years immediately preceding the reporting date</b>		



Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>E. Details of shareholders holding more than 5% shares in the Company</b>		
Vedanta Limited		
No. of Shares (in Crore)	274	274
% of Holding	64.92%	64.92%
Government of India - President of India		
No. of Shares (in Crore)	125	125
% of Holding	29.54%	29.54%

**F. Terms/Rights attached to equity shares**

The Company has one class of equity shares having a par value of ₹2 per share. Each equity shareholder is eligible for one vote per share held. Each equity shareholder is entitled to dividend as and when declared by the Company. Interim dividend is paid as and when declared by the Board. Final dividend is paid after obtaining shareholders' approval. Dividends are paid in Indian Rupees. In the event of liquidation, the equity shareholders are eligible to receive the remaining assets of the Company after distribution of all preferential amount in proportion to their shareholding. The Company has a dividend policy to pay a minimum dividend of 30% of profit after tax or 5% of opening net worth which ever is higher.

**15. OTHER FINANCIAL LIABILITIES**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Non-current</b>		
Security deposits	10	-
Capital creditors	59	93
<b>Total</b>	<b>69</b>	<b>93</b>
<b>Current</b>		
Derivatives - Liabilities (Refer Note 36)	96	47
Capital Creditors (1)	765	381
Others		
Due to related party (Refer Note 38)	27	25
Deposits from vendors	160	189
Dividend payable	1,786	8,188
Unclaimed dividend (2)	4	3
Other liabilities (Includes employee benefits etc.)	256	151
<b>Total</b>	<b>3,094</b>	<b>8,984</b>

(1) Includes ₹ 3 Crore (March 31, 2017: Nil) to related parties (Refer note 38).

(2) Represents the unclaimed dividend for a period less than 7 years.

**16. PROVISIONS**  
**Non-Current**

Particulars	(₹ in Crore)		
	Provision for mine restoration <sup>(1)</sup>	Provision for decommissioning <sup>(2)</sup>	Total
<b>As at April 1, 2016</b>	<b>4</b>	<b>15</b>	<b>19</b>
Addition during the year	83	7	90
Unwinding of discount	2	-	2
Utilized	-	-	-
<b>As at March 31, 2017</b>	<b>89</b>	<b>22</b>	<b>111</b>
Addition during the year/(revision during the year)	25	(6)	19
Unwinding of discount	4	-	4
Utilized	-	-	-
<b>As at March 31, 2018</b>	<b>118</b>	<b>16</b>	<b>134</b>

- (1) The provision for restoration, rehabilitation, and environmental cost represents the Company's best estimate of the costs which will be incurred in the future to meet the obligations under the laws of the land and the terms referred to in the Company's mining arrangements. The principal restoration, rehabilitation and environmental provisions are the costs, which are expected to be incurred in restoring at the end of life of these mines at Rampura Agucha, Rajpura Dariba, Zawar Mines, Sindesar Khurd and Kayad.
- (2) Provision for decommissioning is created to meet the obligation at decommissioned smelting facility at Vizag location basis an independent technical evaluation.

**Current**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Provision for Gratuity (Refer note 28 & 31)	62	16
Provision for compensated absences (Refer note 31)	20	1
Provision for mine restoration	4	-
<b>Total</b>	<b>86</b>	<b>17</b>

**17. OTHER LIABILITIES**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Non-Current</b>		
Deferred government grant <sup>(3)</sup>	792	556
<b>Total</b>	<b>792</b>	<b>556</b>
<b>Current</b>		
Advance from customers <sup>(1)</sup>	1,125	1,515
Statutory and other liabilities <sup>(2)</sup>	519	698
Deferred government grant <sup>(3)</sup>	69	114
<b>Total</b>	<b>1,713</b>	<b>2,327</b>

- (1) Advance from customers includes the amount received under short term supply agreements.
- (2) Statutory and other liabilities mainly includes contribution to PF, Goods and service tax (GST), Excise duty, VAT, TDS, Service tax, amount payable to District Mineral Fund (DMF), National Mineral Exploration Trust (NMET) etc.
- (3) Represents government assistance in the form of the duty benefit availed under Export Promotion Capital Goods (EPCG) Scheme on purchase of Property, Plant and Equipments accounted for as government grant and being amortised over the useful life of such assets.

**18. BORROWINGS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Current</b>		
Commercial Paper (Unsecured) <sup>(1)</sup>	-	7,908
<b>Total</b>	-	7,908

(1) Commercial Papers carry an effective interest rate in the range of 6.1% to 6.5%, and repayable within 7-91 days from the date of issue of commercial papers.

**19. TRADE PAYABLES**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Total outstanding dues of Micro, Small and Medium Enterprises	18	10
Total outstanding dues to creditors other than Micro, Small and Medium Enterprises	929	814
<b>Total</b>	947	824

The disclosures relating to Micro, Small and Medium Enterprises have been furnished to the extent such parties have been identified on the basis of the intimation received from the suppliers regarding their status under the Micro, Small and Medium Enterprises Development Act, 2006. There is no interest paid/payable as at March 31, 2018 (March 31, 2017: Nil).

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
The principal amount and the interest due thereon remaining unpaid to any supplier as at the end of each accounting year.		
i) Principal amount due to micro and small enterprises	18	10
ii) Interest due on above	-	-
iii) The amount of interest paid by the buyer in terms of section 16 of the MSMED Act, 2006 along with the amounts of the payment made to the supplier beyond the appointed day during each accounting year.	-	-
iv) The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under the MSMED Act, 2006.	-	-
v) The amount of interest accrued and remaining unpaid at the end of each accounting year."	-	-
vi) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the small enterprise for the purpose of disallowance as a deductible expenditure under section 23 of the MSMED Act, 2006."	-	-

**20. REVENUE FROM OPERATIONS**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Sale of products (including excise duty) <sup>(1)</sup>	22,051	18,395
Income from wind energy	162	176
	<b>22,213</b>	<b>18,571</b>
<b>Other operating income</b>		
Sale of scrap and residuals	155	111
Export incentives	97	71
Others (unclaimed amount, carbon credits, liquidated damages etc.)	56	45
<b>Total</b>	<b>22,521</b>	<b>18,798</b>

(1) Sale of products includes excise duty collected from Customers of ₹437 Crore (March 31, 2017: ₹1,525 Crore)

Revenue is shown exclusive of GST and other indirect taxes other than excise, as these collections are not an inflow on entity's own account, rather it is collected on behalf of government authorities.

**21. OTHER INCOME**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Net gain on investments measured at FVTPL	774	1,552
Net gain on sale of current investments	340	415
Net gain on foreign currency transactions and translation	130	-
Amortization of deferred revenue arising from government grant	47	107
Interest Income on		
Bank deposits measured at amortized cost	3	4
Investments measured at FVOCI	258	321
Investments measured at FVTPL	101	-
Other financial assets measured at amortised cost	98	75
<b>Total</b>	<b>1,751</b>	<b>2,474</b>

**22. COST OF MATERIALS CONSUMED**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Opening inventory	-	-
Add: Purchase <sup>(1)</sup>	-	26
Less: Closing inventory	-	-
<b>Cost of materials consumed</b>	<b>-</b>	<b>26</b>

(1) Represents zinc and lead concentrate purchased.



**23. CHANGES IN INVENTORIES OF FINISHED GOODS AND WORK-IN-PROGRESS**

(₹ in Crore)

Particulars	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Opening inventory</b>		
Finished goods	54	38
Work in progress:		
Ore	307	48
Mined metal	525	182
Others (includes various semi-finished goods having Zinc, Lead & Silver content)	334	276
<b>Total</b> (A)	<b>1,220</b>	<b>544</b>
<b>Closing inventory</b>		
Finished goods	23	54
Work in progress:		
Ore	141	307
Mined metal	270	525
Others (includes various semi-finished goods having Zinc, Lead & Silver content)	288	334
<b>Total</b> (B)	<b>722</b>	<b>1,220</b>
<b>Changes in Inventory</b> (B - A)	<b>498</b>	<b>(676)</b>

**24. EMPLOYEE BENEFIT EXPENSE**

(₹ in Crore)

Particulars	For the year ended March 31, 2018	For the year ended March 31, 2017
Salaries, wages and bonus <sup>(1)</sup>	625	576
Contribution to provident and other funds (Refer Note 31)	45	45
Share based compensation <sup>(2)</sup>	25	23
Staff welfare expenses <sup>(1)</sup>	81	78
<b>Total</b>	<b>776</b>	<b>722</b>

- (1) Includes Corporate social responsibility expenditure of ₹3 Crore and ₹10 Crore (March 31, 2017: ₹2 Crore and ₹9 Crore) towards salaries, wages and bonus and Staff welfare expenses respectively. Also, Refer note 34.
- (2) The Company offers equity-based award plans to its employees, officers and directors through its holding Company, Vedanta Resources Plc. [Vedanta Resources Long-Term Incentive Plan ("LTIP"), Employee Share Ownership Plan ("ESOP") and Performance Share Plan ("PSP")] collectively Referred as 'Vedanta Resources Plc ESOP' scheme and Vedanta Limited [Vedanta Limited - Employee Stock Option Scheme ("Vedanta Limited- ESOS")].

During the year, share-based incentives arrangement under Vedanta Resource PLC ESOP scheme and ESOS of Vedanta Limited (introduced effective December 2016) are provided to the defined management group. The maximum value of shares that can be awarded to members of the defined management group is calculated by reference to the individual fixed salary and share-based remuneration consistent with local market practice. ESOP scheme of Vedanta Resource Plc. and Vedanta Limited are both tenure and performance based share schemes. The awards are indexed to and settled by Parent's shares (Vedanta Resources Plc. shares or Vedanta Ltd shares as defined in the scheme). The awards have a fixed exercise price denominated in Parent's functional currency (10 US cents per share in case of Vedanta Resources Plc. and Re.1 in case of Vedanta Limited), the performance period of each award is three years and is exercisable within a period of six months from the date of vesting beyond which the option lapses.

Further, in accordance with the terms of the agreement between the Parent and the Company, the cost recognised towards ESOP scheme is recovered by the Parent from the Company.

**25. FINANCE COSTS**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Interest on financial liabilities at amortised cost	268	191
Bill discounting charges	13	8
Bank charges	2	3
<b>Total</b>	<b>283</b>	<b>202</b>

**26. DEPRECIATION AND AMORTIZATION EXPENSES**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Depreciation on Property, Plant and Equipments	1,470	1,800
Amortization on intangible assets	13	11
<b>Total</b>	<b>1,483</b>	<b>1,811</b>

**27. OTHER EXPENSES**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Consumption of stores and spare parts	1,310	1,134
Repairs and Maintenance:		
- Plant and equipment	1,044	1,042
- Building	57	42
Others	1	2
Carriage inwards	207	176
Mine expenses	538	476
Other manufacturing and operating expenses	417	279
Rates and taxes	2	2
Conveyance and travelling expenses	41	32
Directors sitting fees and commission	1	1
Payment to auditors <sup>(1)</sup>	2	2
Carriage outwards	265	246
Grass root exploration expenses	80	55
Donations	-	50
Legal and professional expenses	55	89
Research and development expenditure	7	7
Corporate social responsibility (Refer Note 34)	71	34
Miscellaneous expenses	140	128
<b>Total</b>	<b>4,238</b>	<b>3,797</b>
<sup>(1)</sup> Remuneration to auditors:		
- Audit fees	1	1
- Other services	1	1
<b>Total</b>	<b>2</b>	<b>2</b>

**28. EXCEPTIONAL ITEMS**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Reversal of District Mineral Foundation Provision <sup>(1)</sup>	291	-
Gratuity expense <sup>(2)</sup>	(51)	-
<b>Total</b>	<b>240</b>	<b>-</b>

(1) During the year ended March 31, 2018, the Company has recognised the reversal of provisions of ₹291 Crore relating to contribution to the District Mineral Foundation. Effective January 12, 2015, the Mine and Minerals Development and Regulation Act, 1957 prescribed the establishment of the District Mineral Foundation (DMF) in any district affected by mining related operations. The provisions required contribution of an amount equivalent to a percentage of royalty not exceeding one-third thereof, as may prescribed by the Central Government of India. The rates were prescribed on September 17, 2015 for minerals other than coal, lignite and sand. The Supreme Court order dated October 13, 2017 has determined the prospective applicability of the contributions from the date of the notification fixing such rate of contribution and hence DMF would be effective from the date when the rates were prescribed by the central Government and Pursuant to the aforesaid order, the Company has recognised a reversal of DMF provision for the period for which DMF is no longer leviable.

(2) The Company contributes to a defined benefit plan (the "Gratuity Plan") covering certain categories of employee and the maximum liability was capped at statutory prescribed limit of ₹10 Lakh. Consequent to the increase in the statutory limit to ₹20 Lakh, the increase in provision has been recognised as exceptional items.

**29. EARNINGS PER SHARE**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Basic earnings per share (₹)	21.95	19.68
Diluted earnings per share (₹)	21.95	19.68

The earnings and weighted average number of equity shares used in the calculation of basic and diluted earnings per share are as follows:

Profit after tax attributable to owners of the Company (in ₹ Crore)	9,276	8,316
Weighted average number of equity shares outstanding (Number in Crore)	423	423
Nominal Value per share (in ₹)	2	2

**30. CONTINGENT LIABILITIES AND CAPITAL COMMITMENTS**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>a. Contingent liabilities<sup>(1)</sup></b>		
Claims against the Company not acknowledged as debts		
- Suppliers and contractors	19	43
- Ex-employees and others	8	9
- Land acquisition	6	6
- Mining cases <sup>(2)</sup>	334	334
- Government : Electricity Duty	9	9
: Road Tax	15	15
: Environmental Cess <sup>(3)</sup>	142	142
Guarantees issued by the banks (excluding Financial guarantee)	170	65
Sales tax demands	38	26
Entry tax demands <sup>(4)</sup>	204	199
Income tax demands <sup>(5)</sup>	4,537	4,267
Excise Duty demands <sup>(6)</sup>	106	424

- (1) Future cash out flows in respect of the above matters are determinable only on receipt of judgments or decisions pending at various forums. Accordingly interest and penalty where applicable will be additionally payable.
- (2) The Department of Mines and Geology of the State of Rajasthan issued several show cause notices in August, September and October 2006 to HZL, amounting to ₹334 Crore. These notices alleged unlawful occupation and unauthorised mining of associated minerals other than zinc and lead at HZL's Rampura Agucha, Rajpura Dariba and Zawar mines in Rajasthan during the period from July 1968 to March 2006. HZL believes that the likelihood of this claim is not probable and thus no provision has been made in the financial statements. HZL had filed writ petitions in the High Court of Rajasthan in Jodhpur and had obtained a stay in respect of these demands. The High Court restrained the Department of Mines and Geology from undertaking any coercive measures to recover the penalty. In January 2007, the High Court issued another order granting the Department of Mines and Geology additional time to file their reply and also ordered the Department of Mines and Geology not to issue any orders cancelling the lease. The Company is currently awaiting listing of the said case in Rajasthan High Court.
- (3) The State of Rajasthan issued a notification in June 2008 notifying the Rajasthan Environment and Health Cess Rules, 2008, imposing environment and health cess on major minerals including lead and zinc. HZL and other mine operators resisted this notification and the imposition thereunder before the High Court of Rajasthan on the ground that the imposition of such cess and all matters relating to the environment fall under the jurisdiction of the Central government as opposed to the State government. In October 2011, the High Court of Rajasthan disposed the writ petitions and held the Rajasthan Environment and Cess Rules, 2008 that impose a levy of cess on minerals, as being constitutionally valid. An amount of ₹150 per metric ton of ore produced would be attracted under the Statute if it is held to be valid. HZL challenged this order by a special leave petition in December 2011 before the Supreme Court of India. The Supreme Court of India issued a notice for stay. Further direction was issued by the Supreme Court on March 23, 2012 not to take any coercive action against HZL for recovery of cess. The afore mentioned notification was rescinded via notification dated January 6, 2017, and hence no further obligation exists after that date.
- (4) The Company challenged the constitutional validity of the local statutes and related notifications in the state of Rajasthan pertaining to the levy of entry tax on the entry of goods brought into the state from outside. Nine judge constitution bench of the Supreme court of India in 2016 while upholding the constitutional validity of the levy maintained status quo with respect to all other issues which have been left open for adjudication by regular benches hearing the matters. Post the order of the nine judge bench, the regular bench of the Supreme Court proceeded with hearing the matters. The regular bench remanded the entry tax matters relating to the issue of discrimination against domestic goods from other States to the respective High Courts for final determination but retained the issue of jurisdiction on levy on imported goods, for determination by Supreme Court. The Company has filed writ petition before the Rajasthan High Court.
- (5) Tax demands have been raised mainly on account of disallowance of certain benefits under section 80IA and 80IC of the Indian Income Tax Act and on account of depreciation disallowances and interest thereon. Although, the Company has paid certain amounts in relation to these demands, which are pending at various levels of appeals, management considers these disallowances as not tenable against the Company, and therefore no provision for tax has been created.
- (6) Various demands raised on the Company towards CENVAT, service tax and excise for FY 1991-92 to 2015-16. The Company has paid an amount of ₹40 Crore (March 31, 2017: ₹43 Crore) against these demands under protest and is confident of the liability not devolving on the Company.

## **b. Commitments**

Estimated amount of contracts remaining to be executed on capital account and not provided for ₹2,203 Crore (March 31, 2017: ₹1,636 Crore).

## **c. Other Commitments - Export obligations**

The Company had export obligations of ₹1,416 Crore (March 31, 2017: ₹1,244 Crore) on account of concessional rates of import duties paid on capital goods under the Export Promotion Capital Goods Scheme enacted by the Government of India which is to be fulfilled over the next six years from purchase. If the Company is unable to meet these obligations, its liabilities currently not provided would be ₹236 Crore (March 31, 2017: ₹207 Crore) reduced in proportion to actual export. This liability is backed by the bonds executed in favour of Customs department amounting to ₹168 Crore (March 31, 2017: ₹268 Crore). Further, bonds amounting to ₹1,178 Crore (March 31, 2017: ₹346 Crore) will be released subject to verification of EODC (Export obligation discharge certificate) by the Customs department.



### 31. RETIREMENT AND OTHER EMPLOYEE BENEFIT SCHEMES

#### a. Defined contribution schemes

##### Family Pension Scheme

The contributions are based on a fixed percentage of the employee's salary, subject to a ceiling, as prescribed in the scheme. A sum of ₹6 Crore (March 31, 2017: ₹6 Crore) has been charged to the Statement of Profit and Loss during the year. There are no further obligations on the Company.

##### Superannuation fund

A sum of ₹2 Crore (March 31, 2017: ₹2 Crore) has been charged to the Statement of Profit and Loss in respect to contributions made to the superannuation fund. The Company has no further obligations to the plan beyond the monthly contributions.

#### b. Defined benefit plans

For defined benefit pension schemes, the cost of providing benefits under the plans is determined by actuarial valuation each year for the plan using the projected unit credit method by independent qualified actuaries as at the year end. Remeasurements in the year are recognized in full in other comprehensive income for the year.

##### Provident fund

The Company offers its employees, benefits under defined benefit plans in the form of provident fund scheme which covers all employees. Contributions are paid during the year into 'Hindustan Zinc Limited Employee's Contributory Provident Fund' ('Trust'). Both the employees and the Company pay predetermined contributions into the Trust. A sum of ₹24 Crore (March 31, 2017: ₹25 Crore) has been charged to the Statement of Profit and Loss in this respect during the year.

The Company's Trust is exempted under section 17 of Employees Provident Fund Act, 1952. The conditions for grant of exemption stipulate that the employer shall make good the deficiency, if any, between the return guaranteed by the statute and actual earning of the Trust. Having regard to the assets of the Trust and the return on the investments, the Company does not expect any deficiency in the foreseeable future.

The details of fund and plan asset position are given below:

Particulars	(₹in Crore)	
	As at March 31, 2018	As at March 31, 2017
Plan assets fair valued	1,244	1,112
Present value of benefit obligation at period end	1,241	1,110
<b>Net Plan Assets*</b>	<b>3</b>	<b>2</b>
* Therefore, the net obligation is Nil in the current and previous year		
<b>% allocation of plan assets by category</b>		
Central government securities	21%	23%
State government securities(including PSU Bond)	54%	59%
Private Sector Bonds, Mutual funds	25%	18%
<b>Principal actuarial assumptions</b>		
<b>Financial Assumptions</b>		
Discount rate	7.7%	7.6%
Expected statutory interest rate on the ledger balance	8.55%	8.65%
Expected short fall in interest earnings on the fund	0.05%	0.05%
<b>Demographic Assumptions</b>		
i) Retirement Age (Years)	58	58
ii) Mortality rates inclusive of provision for disability	100% of IALM (2006 - 08)	
iii) Withdrawal rates		
Up to 30 Years	3% - 10.1%	3% - 9.4%
From 31 to 44 years	2% - 4.9%	2% - 5.6%
Above 44 years	1.0%	1% - 1.5%

## Gratuity plan

The gratuity plan is governed by the Payment of Gratuity Act, 1972. Under the Act, an employee who has completed five years of service is entitled to specific benefit. The level of benefits provided depends on the member's length of service and salary at retirement age. The Company's defined benefit plans are funded with Life Insurance Corporation of India (LIC). The Company does not have any liberty to manage the fund provided to LIC.

The following tables set out the funded status of the gratuity plans and the amounts recognized in the financial statements.

**Principal actuarial assumptions**

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Principal actuarial assumptions used to determine the present value of the defined benefit obligation are as follows:		
<b>Financial Assumptions</b>		
Discount rate	7.7%	7.6%
Expected rate of increase in compensation level of covered employees	6%-9.5%	6%-8%
<b>Demographic Assumptions</b>		
i) Retirement Age (Years)	58	58
ii) Mortality rates inclusive of provision for disability	<b>100% of IALM (2006-08)</b>	
iii) Withdrawal rates		
Up to 30 Years	3%-10.1%	3%-9.4%
From 31 to 44 years	2%-4.9%	2%-5.6%
Above 44 years	1.0%	1%-1.5%
Amount recognized in the balance sheet consists of:		
Fair value of planned assets	208	200
Present value of defined benefit obligations	(270)	(216)
<b>Net assets/ (Net unfunded liability)</b>	<b>(62)</b>	<b>(16)</b>

The movement during the year of the present value of the defined benefit obligation was as follows:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Opening Balance	216	208
Service cost	12	10
Benefits paid	(23)	(24)
Interest cost	17	17
Actuarial (Gain)/Loss on obligation	(3)	5
Past Service Cost (Refer note 28)	51	-
<b>Closing Balance</b>	<b>270</b>	<b>216</b>

The movement during the year in the fair value of plan assets was as follow:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Opening Balance	200	183
Employer Contributions	16	25
Benefits paid	(23)	(24)
Actual return on plan assets	15	16
<b>Closing Balance</b>	<b>208</b>	<b>200</b>

Amounts recognized in Statement of Profit and loss in respect of defined benefit plan are as follows:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Current service cost (including ₹51 Crore (March 31, 2017: Nil) recorded as an exceptional item)	63	10
Net Interest cost	2	2
<b>Total charge to Statement of Profit and Loss</b>	<b>65</b>	<b>12</b>

Amounts recognized in Other Comprehensive Income in respect of defined benefit plan are as follows:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Remeasurement (Gain) / Loss arising from Change in Demographic Assumption	-	(1)
Remeasurement (Gain) / Loss arising from Change in Financial Assumption	(4)	(18)
Remeasurement (Gain) / Loss arising from Experience Adjustment	7	14
<b>Remeasurement of the net defined benefit liability</b>	<b>3</b>	<b>(5)</b>

Expected contribution for the next annual reporting period:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
Service Cost	13	11
Net Interest Cost	5	1
Expected Expense for the next annual reporting period	18	12

#### % allocation of plan assets by category

Particulars	As at	
	March 31, 2018	March 31, 2017
Government Securities	45%	45%
Debentures / bonds	35%	35%
Equity instruments	10%	10%
Money market instruments	10%	10%

#### Sensitivity analysis

Below is the sensitivity analysis determined for significant actuarial assumptions for the determination of defined benefit obligations and based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period while holding all other assumptions constant.

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Impact of change in discount rate</b>		
Increase by 0.50%	(7)	(6)
Decrease by 0.50%	7	6
<b>Impact of change in salary rate</b>		
Increase by 0.50%	5	6
Decrease by 0.50%	(5)	(6)

The above sensitivity analysis may not be representative of the actual benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

In presenting the above sensitivity analysis, the present value of defined benefit obligation has been calculated using the projected unit credit method at the end of reporting period, which is the same as that applied in calculating the defined obligation liability recognized in the balance sheet.

### Risk analysis

The Company is exposed to a number of risks in the defined benefit plans. Most significant risks pertaining to defined benefits plans and management estimation of the impact of these risks are as follows:

#### Investment risk

The Company's defined benefit plans are funded with Life Insurance Corporation of India (LIC). The Company does not have any liberty to manage the fund provided to LIC. The present value of the defined benefit plan liability is calculated using a discount rate determined by Reference to Government of India bonds for the Company's operations. If the return on plan asset is below this rate, it will create a plan deficit.

#### Interest risk

A decrease in the interest rate on plan assets will increase the plan liability, however this will be partially offset by increase in the return on plan debt investment.

#### Longevity risk/ Life expectancy

The present value of the defined benefit plan liability is calculated by Reference to the best estimate of the mortality of plan participants both during and at the end of the employment. An increase in the life expectancy of the plan participants will increase the plan liability.

#### Salary growth risk

The present value of the defined benefit plan liability is calculated by Reference to the future salaries of plan participants. An increase in the salary of the plan participants will increase the plan liability.

## 32. INCOME TAX EXPENSES

The major components of income tax expense for the year ended March 31, 2018 are indicated below:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>a. Tax charge recognised in Profit and Loss</b>		
<b>Current tax:</b>		
Current tax on profit for the year	2,647	2,196
<b>Total Current tax</b>	<b>2,647</b>	<b>2,196</b>
<b>Deferred tax:</b>		
Reversal and origination of temporary differences	(178)	(262)
MAT credit asset (recognized)/ utilisation	686	41
Adjustment in respect of earlier years	66	(91)
<b>Total Deferred tax</b>	<b>574</b>	<b>(312)</b>
<b>Tax expense for the year</b>	<b>3,221</b>	<b>1,884</b>
<b>Effective income tax rate (%)</b>	<b>25.77%</b>	<b>18.47%</b>
<b>b. Statement of other comprehensive income</b>		
<b>Deferred tax (credit) / charge on:</b>		
Unrealized (gain)/loss on FVTOCI of financial instruments	(35)	(20)
Remeasurement of defined benefit obligation	1	1
<b>Total</b>	<b>(34)</b>	<b>(19)</b>



A reconciliation of income tax expense applicable to accounting profits before tax at the statutory income tax rate to recognized income tax expense for the year is as follows:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Accounting profit before tax (after exceptional item)</b>	<b>12,497</b>	10,200
Statutory income tax rate	<b>34.61%</b>	34.61%
Tax at statutory income tax rate	<b>4,325</b>	3,530
Disallowable expenses	<b>32</b>	33
Non-taxable capital gains	<b>(271)</b>	(885)
Tax holidays and similar exemptions	<b>(964)</b>	(744)
Additional depreciation under income tax reversible within tax holiday period	<b>33</b>	(44)
Investment allowance	<b>-</b>	(41)
Utilization of tax losses	<b>-</b>	(29)
Adjustments in respect of prior years	<b>66</b>	64
<b>Total</b>	<b>3,221</b>	1,884

There are certain income-tax related legal proceedings which are pending against the Company. Potential liabilities, if any have been adequately provided for and the Company does not currently estimate any probable material incremental tax liabilities in respect of these matters. (Refer note 30)

The Company is eligible for specified tax incentives which are included in the table above as 'tax holidays and similar exemptions'. These are briefly described as under:

#### The location based exemption

In order to boost industrial and economic development in undeveloped regions, provided certain conditions are met, profits of newly established undertakings located in certain areas in India may benefit from a tax holiday. Such a tax holiday works to exempt 100% of the profits for the first five years from the commencement of the tax holiday, and 30% of profits for the subsequent five years. This deduction is available only for units established up to March 31, 2012. However, such undertaking would continue to be subject to the Minimum Alternative tax ('MAT'). The Company has such types of undertakings at Haridwar and Pantnagar. The tax holiday benefit at Haridwar expired at March 2018 while in Pantnagar the Company would continue to avail 30% tax holiday till March 2021.

#### Sectoral Benefit - Power Plants

To encourage the establishment of certain power plants, provided certain conditions are met, tax incentives exist to exempt 100% of profits and gains for any ten consecutive years within the 15 year period following commencement of the power plant's operation. The Company currently has total operational capacity of 474 Mega Watts (MW) of thermal based power generation facilities, wind power capacity of 274 Mega Watts (MW) and solar power plants of 16 MW. However, such undertakings generating power would continue to be subject to the MAT provisions.

Significant components of deferred tax assets and (liabilities) recognized in the balance sheet are as follows:

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Property, plant and equipment, Exploration and evaluation and intangible assets	<b>(1,727)</b>	(1,610)
Fair valuation of financial assets/liabilities	<b>(372)</b>	(811)
Voluntary retirement scheme	<b>10</b>	16
Other temporary differences	<b>103</b>	232
MAT credits entitlement	<b>4,194</b>	4,880
Unutilised tax losses	<b>-</b>	41
<b>Deferred Tax Assets (net)</b>	<b>2,208</b>	2,748

The reduction in deferred tax asset of ₹540 Crore (March 2017: ₹331 Crore) is represented as follows:

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Through Other Comprehensive Income</b>		
Fair value of financial instruments	(35)	(20)
Others	1	1
	(34)	(19)
<b>Through Profit and Loss</b>		
All other charges	574	(312)
<b>Total</b>	<b>540</b>	<b>(331)</b>

### 33. JOINT VENTURE

The Company had access of up to 31.5 million MT of coal as a partner in the joint venture 'Madanpur South Coal Company Limited' (Madanpur JV), a Company incorporated in India, where it holds 18.05% of ownership interest. During the year 2013-14, Honourable Supreme Court had passed the judgment cancelling all the coal blocks including Madanpur JV allocated since 1993 with certain exceptions and consequently the Company does not have any business to pursue. Accordingly, the Company had created 100% provision against its investment in Madanpur JV amounting to ₹2 Crore.

The Company's share of each of the assets, liabilities, income and expenses etc., related to its interests in Madanpur JV are:

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Investment in Joint venture		
Madanpur South Coal Company Limited (at cost)	2	2
1,14,391 equity shares of ₹10 each <sup>(1)</sup> (March 31, 2017: 1,52,266 equity shares of ₹10 each)		
Less: Aggregate amount of impairment in the value of investment	(2)	(2)
<b>Total</b>	<b>-</b>	<b>-</b>

(1) The board of directors of Madanpur South Coal Company Limited have approved buy back of equity shares at a price of ₹96 per share. Accordingly HZL has exercised buy back option on 37,875 shares on August 12, 2017.

The Company's share of each of the assets, liabilities, income and expenses etc., related to its interests in Madanpur JV are:

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Non-current assets (Includes Property, Plant and Equipment)	1	1
Current assets (Includes investments and deposits)	-	-
(₹ in Crore)		
Particulars	For the year ended March 31, 2018	For the year ended March 31, 2017
Income	-	-
Expenses	-	-

The Company has not prepared consolidated financial statements as at March 31, 2018 & March 31, 2017 as the Company does not have any investment in subsidiaries or associates apart from the above investment in Madanpur JV. The operations of Madanpur JV has been discontinued pursuant to cancellation of coal allocation by Supreme Court and the investments in Madanpur JV are completely impaired. Accordingly, the profits, equity and cash flows on consolidation of Madanpur JV with the Company would remain consistent with the standalone financial statements.

### 34. CORPORATE SOCIAL RESPONSIBILITY EXPENSES

The Company is required to spend a gross amount of ₹189 Crore and ₹175 Crore for the year ended March 31, 2018 and March 31, 2017 respectively.

Particulars	(₹ in Crore)		
	For the year ended March 31, 2018		
	In- Cash	Yet to be Paid in Cash	Total
Amount spent during the year on			
i) Depreciation and amortization <sup>(1)</sup>	7	-	7
ii) Other expenses (including employee benefit expenses of ₹13 Crore)	73	11	84
<b>Total amount spent</b>	<b>80</b>	<b>11</b>	<b>91</b>

Particulars	(₹ in Crore)		
	For the year ended March 31, 2017		
	In- Cash	Yet to be Paid in Cash	Total
Amount spent during the year on			
i) Depreciation and amortization <sup>(1)</sup>	5	-	5
ii) Other expenses (including employee benefit expenses of ₹11 Crore)	39	6	45
<b>Total amount spent</b>	<b>44</b>	<b>6</b>	<b>50</b>

- (1) Represents depreciation on the sewage treatment plant (STP) and related assets of ₹1 Crore and ₹2 Crore for the period ended March 31, 2018 and March 31, 2017 respectively and the amortisation expenditure on right to use the water of STP is ₹3 Crore and ₹3 Crore for the period ended March 31, 2018 and March 31, 2017 respectively.

### 35. SEGMENT REPORTING

#### a. Basis of Segmentation

The Company is engaged in exploring, extracting and processing minerals. The Company produces zinc, lead, silver and commercial power. The Company has two reportable segments: i) zinc, lead and silver and ii) wind energy. The management of the Company is organized by its main products: zinc, lead and silver and wind energy. Each of the reportable segments derives its revenues from these main products and hence these have been identified as reportable segments by the Company's Chief Operating Decision Maker ("CODM"). Segment profit amounts are evaluated regularly by the CEO, who has been identified as the CODM, in deciding how to allocate resources and in assessing performance.

#### Zinc, Lead and Silver

The Company's operations include five lead-zinc mines, one rock phosphate mine, four hydrometallurgical zinc smelters, two lead smelters, one pyro metallurgical lead-zinc smelter, seven sulphuric acid plants, a silver refinery, six captive power plants and two solar plants in the state of Rajasthan in Northwest India and one zinc ingot processing and refining plant at Haridwar and one silver refinery, one zinc ingot and one lead ingot processing and refining plant at Pantnagar in the state of Uttarakhand in North India.

#### Wind energy

The Company has installed 274 Mega Watts (MW) wind power plants in Gujarat, Karnataka, Rajasthan, Maharashtra and Tamil Nadu.

The accounting policies of the reportable segments are the same as the Company's accounting policies described in Note 3. The operating segments reported are the segments of the Company for which separate financial information is available. Segment profit (Earnings before interest, depreciation and amortization, and tax) amounts are evaluated regularly by the CEO who has been identified as its CODM in deciding how to allocate resources and in assessing performance. The Company's financing (including finance costs and finance income) and income taxes are reviewed on an overall basis and are not allocated to operating segments. Transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

Revenue and expenses directly attributable to segment are reported under each reportable segment. Expenses which are not directly identifiable to each reporting segment have been allocated on the basis of appropriate cost drivers of the segment.

Asset and liabilities that are directly attributable or allocable to segments are disclosed under each reportable segment. All other assets and liabilities are disclosed as unallocable.”

The following table presents revenue and profit information and certain assets information regarding the Company's business segments for the period ended March 31, 2018.

## b. Information about reportable segments

### I. Information about primary segment

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Revenue<sup>1</sup></b>		
Zinc, Lead and others	20,000	16,578
Silver	2,148	1,888
Wind Energy	162	176
<b>Segment revenue</b>	<b>22,310</b>	<b>18,642</b>
<b>Segment Results</b>		
Zinc, Lead and others	8,999	6,469
Silver	1,822	1,486
Wind Energy	120	79
<b>Segment Results</b>	<b>10,941</b>	<b>8,034</b>
Less: Finance costs	283	202
Add: Interest income	460	400
Add: Other unallocable income net of unallocable expenditure	1,139	1,968
Profit before tax and exceptional items	12,257	10,200
Exceptional item	240	-
Profit before tax	12,497	10,200
Tax expenses	3,221	1,884
<b>Profit for the year</b>	<b>9,276</b>	<b>8,316</b>
<b>Depreciation &amp; amortisation Expense</b>		
Zinc, Lead, Silver and others	1,455	1,732
Wind Energy	28	79
<b>Total</b>	<b>1,483</b>	<b>1,811</b>

<sup>1</sup> Includes Export incentive ₹97 Crore (March 31, 2017: ₹71 Crore)



(₹ in Crore)

Particulars	Zinc, Lead and Silver	Wind energy	Unallocated	Total
<b>As at March 31, 2018</b>				
<b>Assets and liabilities</b>				
<b>Assets</b>				
Segment assets	16,911	698	22	17,631
Financial assets investments	-	-	20,222	20,222
Deferred tax asset (net)	-	-	2,208	2,208
Cash and cash equivalent	-	-	173	173
Other bank balance	-	-	1,791	1,791
Advance income tax (net of provision for tax)	-	-	907	907
<b>Total assets</b>	<b>16,911</b>	<b>698</b>	<b>25,323</b>	<b>42,932</b>
<b>Liabilities</b>				
Segment liability	5,034	11	1,790	6,835
Current Tax Liabilities (Net)	-	-	165	165
<b>Total liabilities</b>	<b>5,034</b>	<b>11</b>	<b>1,955</b>	<b>7,000</b>

**As at March 31, 2017****Assets and liabilities****Assets**

Segment assets	15,559	772	23	16,354
Financial assets investments	-	-	23,783	23,783
Deferred tax asset (net)	-	-	2,748	2,748
Cash and cash equivalent	-	-	189	189
Other bank balance	-	-	8,191	8,191
Advance income tax (net of provision for tax)	-	-	530	530
<b>Total assets</b>	<b>15,559</b>	<b>772</b>	<b>35,464</b>	<b>51,795</b>

**Liabilities**

Segment liability	4,711	11	8,190	12,912
Borrowings (including accrued interest)	-	-	7,908	7,908
Current Tax Liabilities (Net)	-	-	170	170
<b>Total liabilities</b>	<b>4,711</b>	<b>11</b>	<b>16,268</b>	<b>20,990</b>

**Other Segment Information****Segment capital expenditure**

The below expenditure includes additions to property, plant and equipment, intangible assets, capital work in progress and capital advances:

(₹ in Crore)

Particulars	Zinc, Lead and Silver	Wind energy	Total
As at March 31, 2018	3,285	-	3,285
As at March 31, 2017	2,185	-	2,185

**II. Information based on Geography**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Geographical Segments</b>		
<b>Revenue by geographical segment</b>		
India	16,059	14,004
Asia	5,556	3,901
Rest of the World	695	737
<b>Total</b>	<b>22,310</b>	<b>18,642</b>

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Non-current assets(1)</b>		
India	16,566	14,379
Asia	-	-
Rest of the World	-	-
<b>Total</b>	<b>16,566</b>	<b>14,379</b>

(1) Excluding financial instruments and deferred tax assets.

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Segment capital expenditure</b>		
India	3,285	2,185
Asia	-	-
Rest of the World	-	-
<b>Total</b>	<b>3,285</b>	<b>2,185</b>

**Information about major customer**

No single customer accounted for 10% or more of the revenue during the year.

**Reconciliation between segment revenue and enterprise revenue**

Particulars	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Segment Revenue</b>		
Zinc, Lead and others	20,000	16,578
Silver	2,148	1,888
Wind Energy	162	176
<b>Total Segment Revenue</b>	<b>22,310</b>	<b>18,642</b>
<b>Enterprise Revenue</b>		
Revenue from operations	22,521	18,798
Less: Other operating revenues (excluding export incentives)	(211)	(156)
<b>Total Segment Revenue</b>	<b>22,310</b>	<b>18,642</b>

### 36. FINANCIAL INSTRUMENTS

This section gives an overview of the significance of financial instruments for the Company and provides additional information on the balance sheet. Details of significant accounting policies, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognized, in respect of each class of financial asset, financial liability and equity instrument are disclosed in Note 2 and Note 3.

#### Financial assets and liabilities:

The accounting classification of each category of financial instruments, and their carrying amounts, are set out below:

(₹ in Crore)

Particulars	Fair Value through profit and loss	Fair Value through other comprehensive income	Amortized Cost	Total carrying value	Total fair value
<b>As at March 31, 2018</b>					
<b>Financial assets</b>					
Cash and cash equivalents	-	-	173	173	173
Other bank balances	-	-	1,791	1,791	1,791
Current investments	17,419	2,803	-	20,222	20,222
Trade receivables	-	-	184	184	184
Other Current financial assets and loans	8	-	4	12	12
Other Non-current financial assets	-	-	15	15	15
<b>Total</b>	<b>17,427</b>	<b>2,803</b>	<b>2,167</b>	<b>22,397</b>	<b>22,397</b>
<b>Financial liabilities</b>					
Trade payables	-	-	947	947	947
Other Current financial liabilities	1	95	2,998	3,094	3,094
Other Non-current financial liabilities	-	-	69	69	69
<b>Total</b>	<b>1</b>	<b>95</b>	<b>4,014</b>	<b>4,110</b>	<b>4,110</b>
<b>As at March 31, 2017</b>					
<b>Financial assets</b>					
Cash and cash equivalents	-	-	189	189	189
Other bank balances	-	-	8,191	8,191	8,191
Current investments	19,336	4,447	-	23,783	23,783
Trade receivables	-	-	136	136	136
Other Current financial assets and loans	2	-	4	6	6
Other Non-current financial assets	-	-	19	19	19
<b>Total</b>	<b>19,338</b>	<b>4,447</b>	<b>8,539</b>	<b>32,324</b>	<b>32,324</b>
<b>Financial liabilities</b>					
Short term borrowings	-	-	7,908	7,908	7,908
Trade payables	-	-	1,205	1,205	1,205
Other Current financial liabilities	47	-	8,556	8,603	8,603
Other Non-current financial liabilities	-	-	93	93	93
<b>Total</b>	<b>47</b>	<b>-</b>	<b>17,762</b>	<b>17,809</b>	<b>17,809</b>

The management assessed that Cash and cash equivalents, Other bank balances, Trade receivables, Trade payables, other current financial assets and liabilities approximate their carrying amounts largely due to the short term maturities of these instruments.

Fair value of the current instrument in bonds and zero coupon bonds are based on the price quotations at the reporting date. Fair value of current investments that are in the nature of 'close ended' mutual funds are based on market observable inputs i.e. NAV provided by mutual fund houses. [a level 2 technique].

Fair value of current investments that are in the nature of 'open ended' mutual funds are derived from quoted market prices in active markets [a level 1 technique].

The Fair value of non current financial assets and liabilities are estimated by discounting the expected future cash flows using a discount rate equivalent to the risk free rate of return adjusted for the appropriate credit spread.

The Company enters into derivative financial instruments with various counterparties, principally financial institutions with investment grade credit ratings. Forward foreign currency contracts are valued using valuation technique with market observable inputs. The most frequently applied valuation techniques for such derivatives include forward pricing using present value calculations. The models incorporate various inputs including the credit quality of counterparties, foreign exchange spot and forward rates, yield curves of the respective currencies, currency basis spreads between the respective currencies, interest rate curves and forward rate curves of the underlying currency (a level 2 technique). Commodity contracts are valued using the forward LME rates of commodities actively traded on the listed metal exchange i.e. London Metal Exchange, United Kingdom (U.K.) [a level 2 technique].

### Fair value hierarchy

The table shown below analyses financial instruments carried at fair value, by measurement hierarchy. The different levels have been defined below:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Particulars	(₹ in Crore)		
	Level-1	Level-2	Level-3
<b>Financial Assets</b>			
<b>As at March 31, 2018</b>			
At fair value through profit and loss			
Short term investment	5,371	12,048	-
Derivatives financial Assets*			
Forward foreign currency contracts	-	4	-
Commodity contracts	-	4	-
At fair value through Other Comprehensive Income			
Short term investment	-	2,803	-
<b>Total</b>	<b>5,371</b>	<b>14,859</b>	<b>-</b>
<b>Financial Liabilities</b>			
At fair value through profit and loss			
Derivatives financial Liabilities*			
Commodity contracts	-	1	-
At fair value through Other Comprehensive Income			
Derivatives financial Liabilities*			
Commodity contracts	-	95	-
<b>Total</b>	<b>-</b>	<b>96</b>	<b>-</b>

Particulars	(₹ in Crore)		
	Level-1	Level-2	Level-3
<b>As at March 31, 2017</b>			
At fair value through profit and loss			
Short term investment	7,169	12,167	-
Derivatives financial Assets*			
Commodity Contracts	-	1	-
At fair value through Other Comprehensive Income			
Short term investment	-	4,447	-
<b>Total</b>	<b>7,169</b>	<b>16,615</b>	<b>-</b>
<b>Financial Liabilities</b>			
At fair value through profit and loss			
Derivatives financial Liabilities*			
Forward foreign currency contracts	-	47	-
Fair value of liabilities carried at amortised cost			
Borrowings	-	7,908	-
<b>Total</b>	<b>-</b>	<b>7,955</b>	<b>-</b>

\* Refer section - "Derivative financial instruments"



There is no financial instrument which is classified as level 3 during the year. There were no transfers between Level 1, Level 2 and Level 3 during the year.

## **Risk management framework**

### **Risk management**

The Company's businesses are subject to several risks and uncertainties including financial risks. The Company's documented risk management policies act as an effective tool in mitigating the various financial risks to which the business is exposed to in the course of their daily operations. The risk management policies cover areas such as liquidity risk, commodity price risk, foreign exchange risk, interest rate risk, counterparty and concentration of credit risk and capital management. Risks are identified through a formal risk management programme with active involvement of senior management personnel and business managers. Each significant risk has a designated 'owner' within the Company at an appropriate senior level. The potential financial impact of the risk and its likelihood of a negative outcome are regularly updated.

The risk management process is coordinated by the Management Assurance function and is regularly reviewed by the Company's Audit Committee. The Audit Committee is aided by the Risk Management Committee, which meets regularly to review risks as well as the progress against the planned actions. Key business decisions are discussed at the periodic meetings of the Executive Committee. The overall internal control environment and risk management programme including financial risk management is reviewed by the Audit Committee on behalf of the Board.

The risk management framework aims to:

- improve financial risk awareness and risk transparency
- identify, control and monitor key risks
- identify risk accumulations
- provide management with reliable information on the Company's risk situation
- improve financial returns

### **Treasury management**

The Company's treasury function provides services to the business, co-ordinates access to domestic financial markets, monitors and manages the financial risks relating to the operations of the Company through internal risk reports which analyse exposures by degree and magnitude of risks. These risks include market risk (including currency risk, fair value interest rate risk and price risk), credit risk, liquidity risk and cash flow interest rate risk.

Treasury management focuses on capital protection, liquidity maintenance and yield maximization. The treasury policies are approved by the Board and adherence to these policies is strictly monitored at the Executive Committee meetings. Day-to-day treasury operations of the Company are managed by the finance team within the framework of the overall Company's treasury policies. A monthly reporting system exists to inform senior management about investments, currency and, commodity derivatives. The Company has a strong system of internal control which enables effective monitoring of adherence to Company's policies. The internal control measures are effectively supplemented by regular internal audits.

The investment portfolio at the Company is independently reviewed by CRISIL Limited and it has been rated as "Very Good" meaning highest safety.

The Company uses derivative instruments as part of its management of exposure to fluctuations in foreign currency exchange rates, interest rates and commodity prices. The Company does not acquire or issue derivative financial instruments for trading or speculative purposes. The Company does not enter into complex derivative transactions to manage the treasury and commodity risks. Both treasury and commodities derivative transactions are normally in the form of forwards and these are subject to the Company's guidelines and policies.

## Market risk

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises interest rate risk, currency risk and commodity risk. Financial instruments affected by market risk include loans and borrowings, deposits, FVTOCI investments and derivative financial instruments.

The sensitivity analyses in the following sections relate to the position as at March 31, 2018 & March 31, 2017. The sensitivity analyses have been prepared on the basis that the amount of net debt, the ratio of fixed interest rates of the debt and derivatives and the proportion of financial instruments in foreign currencies are all constant. The analyses exclude the impact of movements in market variables on: the carrying values of gratuity and other post-retirement obligations, provisions, and the non-financial assets and liabilities of foreign operations.

## Commodity price risk

The Company is exposed to the movement of base metal commodity prices on the London Metal Exchange. Any decline in the prices of the base metals that the Company produces and sells will have an immediate and direct impact on the profitability of the businesses. As a general policy, the Company aims to achieve the monthly average of the commodity prices for sales realization. Hedging is used primarily as a risk management tool and, in some cases, to secure future cash flows in cases of high volatility by entering into forward contracts or similar instruments. The hedging activities are subject to strict limits set out by the Board and to a strictly defined internal control and monitoring mechanism. Decisions relating to hedging of commodities are taken at the Executive Committee level and with clearly laid down guidelines for their implementation by the Company.

Whilst the Company aims to achieve average LME prices for a month or a year, average realized prices may not necessarily reflect the LME price movements because of a variety of reasons such as uneven sales during the year and timing of shipments.

Financial instruments with commodity price risk are entered into in relation to following activities:

- economic hedging of prices realized on commodity contracts.
- cash flow hedging on account of forecasted highly probable transactions.

The sales prices of zinc and lead are linked to the LME prices. The Company also enters into hedging arrangements for its Zinc and Lead sales to realize month of sale LME prices.

Total exposure on provisionally priced Zinc, Lead & Silver contracts as at March 31, 2018 were ₹334 Crore (March 31, 2017 ₹38 Crore), ₹46 Crore (March 31, 2017 ₹31 Crore) and ₹2 Crore (March 31, 2017 Nil) respectively. The impact on net profits for a 10% movement in LME prices of zinc, 5% movement in LME price of lead and 5% movement in LME price of silver that were provisionally priced as at March 31, 2018 is ₹33 Crore, ₹2 Crore, Nil respectively and as at March 31, 2017 is ₹4 Crore, ₹2 Crore and Nil respectively.

## Financial risk

The Company's Board approved financial risk policies comprise liquidity, currency, interest rate and counterparty risk. The Company does not engage in speculative treasury activity but seeks to manage risk and optimize interest and commodity pricing through proven financial instruments.

### a. Liquidity risk

The Company requires funds both for short-term operational needs as well as for long-term investment programme mainly in growth projects. The Company generates sufficient cash flows from the current operations which together with the available cash and cash equivalents and short-term investments provide liquidity both in the short-term as well as in the long-term.

The Company has been rated as 'AAA' / Stable for long term and A1+ for short term by CRISIL Limited during the current and previous financial years.

The Company remains committed to maintaining a healthy liquidity, gearing ratio and strengthening the balance sheet. The maturity profile of the Company's financial liabilities based on the remaining period from the date of balance sheet to the contractual maturity date is given in the table below. The figures reflect the contractual undiscounted cash obligation of the Company.

(₹ in Crore)

Payment due by years	<1 year	1-2 Years	2-5 Years	> 5 Years	Total
<b>As at March 31, 2018</b>					
Trade and other payables	3,945	69	-	-	4,014
Derivative financial liabilities	96	-	-	-	96
<b>Total</b>	<b>4,041</b>	<b>69</b>	<b>-</b>	<b>-</b>	<b>4,110</b>
<b>As at March 31, 2017</b>					
Trade and other payables	9,761	93	-	-	9,854
Derivative financial liabilities	47	-	-	-	47
Borrowings	8,000	-	-	-	8,000
<b>Total</b>	<b>17,808</b>	<b>93</b>	<b>-</b>	<b>-</b>	<b>17,901</b>

The Company had access to following funding facilities.

(₹ in Crore)

Funding facility	Total facility	Drawn	Undrawn
<b>As at March 31, 2018</b>			
Less than 1 year	2,250	623	1,627
More than 1 year	-	-	-
<b>Total</b>	<b>2,250</b>	<b>623</b>	<b>1,627</b>
<b>As at March 31, 2017</b>			
Less than 1 year	2,400	1,095	1,305
More than 1 year	-	-	-
<b>Total</b>	<b>2,400</b>	<b>1,095</b>	<b>1,305</b>

#### b. Foreign exchange risk

Fluctuations in foreign currency exchange rates may have an impact on the Statement of Profit and Loss, where any transaction References more than one currency other than the functional currency of the Company.

The Company uses forward exchange contracts, to hedge the effects of movements in exchange rates on foreign currency denominated assets and liabilities. The sources of foreign exchange risk are outstanding amounts payable for imported raw materials, capital goods and other supplies denominated in foreign currency. The Company is also exposed to foreign exchange risk on its exports. Most of these transactions are denominated in US dollars. The policy of the Company is to determine on a regular basis what portion of the foreign exchange risk on financing transactions are to be hedged through forward exchange contracts and other instruments. Short-term net exposures are hedged progressively based on their maturity. A more conservative approach has been adopted for project expenditures to avoid budget overruns. Longer term exposures, are normally unhedged. The hedge mechanisms are reviewed periodically to ensure that the risk from fluctuating currency exchange rates is appropriately managed. The following analysis is based on the gross exposure as at the reporting date which could affect the Statement of Profit and Loss. The below table summarises the foreign currency risk from financial instrument and is partly mitigated by some of the derivative contracts entered into by the Company as disclosed under the section on "Derivative financial instruments."

(₹ in Crore)

Particulars	As at March 31, 2018		As at March 31, 2017	
	Financial Asset	Financial Liability	Financial Asset	Financial Liability
Currency exposure				
US Dollar	54	277	58	170
Australian Dollar	-	12	-	1
SEK	-	-	-	4
JPY	-	2	-	-
Euro	-	194	-	82
Others	-	4	-	-

The Company's exposure to foreign currency arises where a Company holds monetary assets and liabilities denominated in a currency different to the functional currency of the Company, with US dollar and Euro being the major non-functional currency. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rate, liquidity and other market changes.

The results of Company operations may be affected largely by fluctuations in the exchange rates between the Indian Rupee, against the US dollar. The foreign exchange rate sensitivity is calculated by the aggregation of the net foreign exchange rate exposure with a simultaneous parallel foreign exchange rate shift in the currencies by 5% against the functional currency of the respective entities.

Set out below is the impact of a 5% strengthening/weakening in the INR on pre-tax profit/(loss) arising as a result of the revaluation of the Company's foreign currency financial assets/liabilities:

Particulars	Total exposure		Effect of 5% strengthening/ weakening of INR on pre-tax profit/ (loss)	
	For the year ended March 31, 2018	For the year ended March 31, 2017	For the year ended March 31, 2018	For the year ended March 31, 2017
	US Dollar	222	112	11
Australian Dollar	12	-	1	-
Euro	194	82	10	4

### c. Interest rate risk

Floating rate financial assets are largely mutual fund investments which have debt securities as underlying assets. The returns from these financial assets are linked to market interest rate movements; however the counterparty invests in the agreed securities with known maturity tenure and return and hence has manageable risk. Additionally, the investments portfolio is independently reviewed by CRISIL Limited, and it has been rated as "Very Good" meaning highest safety.

The exposure of the Company's financial assets to interest rate risk is as follows:

Particulars	Total	Floating rate	Fixed rate	(₹ in Crore)
				Non-interest bearing
<b>As at March 31, 2018</b>				
Financials assets	22,397	15,146	5,076	2,175
Financial liabilities	4,110	-	-	4,110
<b>As at March 31, 2017</b>				
Financials assets	32,324	19,336	4,447	8,541
Financial liabilities	17,809	-	7,908	9,901

Interest rate risk is the risk that the fair value of future cash flows of financial instruments will fluctuate because of changes in market interest rate. The Company does not have floating interest rate borrowing during the year ended March 31, 2018 & March 31, 2017 and it is not significantly exposed to interest rate risk.

Considering the net investment position as at March 31, 2018 and the investment in bank deposits, bonds and debt mutual funds, any increase in interest rates would result in a net increase and any decrease in interest rates would result in a net decrease. The sensitivity analysis below has been determined based on the exposure to interest rates for both derivative and non-derivative instruments at the balance sheet date.

The below analysis gives the impact of a 0.5% to 2.0% change in interest rate of floating investment on profit/(loss) and equity and represents management's assessment of the possible change in interest rates.

The impact of change (increase/(decrease)) in interest rate of 0.5%, 1.0% and 2.0% on profits for the period ended March 31, 2018 is ₹76 Crore, ₹151 Crore and ₹303 Crore and for year ended March 31, 2017 is ₹97 Crore, ₹193 Crore and ₹387 Crore respectively.

#### d. Counterparty and concentration of credit risk

Credit risk Refers to the risk that counterparty will default on its contractual obligations resulting in financial loss to the Company. The Company has adopted a policy of obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The Company is exposed to credit risk for receivables, cash and cash equivalents, short-term investments and derivative financial instruments. Credit risk on receivables is limited as almost all credit sales are against letters of credit and guarantees of banks of good financial repute.

Moreover, given the nature of the Company's business, trade receivables are spread over a number of customers with no significant concentration of credit risk. No single customer accounted for 10% or more of revenue on a % basis in any of the years indicated. The history of trade receivables shows a negligible provision for bad and doubtful debts. Therefore, the Company does not expect any material risk on account of non-performance by any of the Company's counterparties.

For short-term investments, counterparty limits are in place to limit the amount of credit exposure to any one counterparty. For derivative and financial instruments, the Company attempts to limit the credit risk by only dealing with reputable banks and financial institutions having high credit-ratings assigned by international credit-rating agencies. Defined limits are in place for exposure to individual counterparties in case of mutual funds schemes and bonds.

The carrying value of the financial assets represents the maximum credit exposure. The Company's maximum exposure to credit risk as at March 31, 2018 and March 31, 2017 are ₹22,397 Crore and ₹32,324 Crore respectively.

None of the Company's cash equivalents, including time deposits with banks, are past due or impaired. Regarding trade and other receivables, and other non-current assets, there were no indications as at March 31, 2018, that defaults in payment obligations will occur.

Of the year end trade receivables, loans and other financial assets, following balances were past due but not impaired as at March 31, 2018 and March 31, 2017:

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
Neither impaired nor past due	68	30
Past due but not impaired		
Less than 1 month	76	17
Between 1-3 months	5	6
Between 3-12 months	49	82
Greater than 12 months	5	1
<b>Total</b>	<b>203</b>	<b>136</b>

Receivables are deemed to be past due or impaired with Reference to the Company's normal terms and conditions of business. These terms and conditions are determined on a case to case basis with Reference to the customer's credit quality and prevailing market conditions. Receivables that are classified as 'past due' in the above tables are those that have not been settled within the terms and conditions that have been agreed with that customer.

The credit quality of the Company's customers is monitored on an on-going basis and assessed for impairment where indicators of such impairment exist. The solvency of the debtor and their ability to repay the receivable is considered in assessing receivables for impairment. Where receivables have been impaired, the Company actively seeks to recover the amounts in question and enforce compliance with credit terms.

#### Derivative financial instruments

The Company does not acquire or issue derivative financial instruments for trading or speculative purposes. The Company does not enter into complex derivative transactions to manage the treasury and commodity risks. Both treasury and commodities derivative transactions are normally in the form of forward contracts and these are subject to the Company guidelines and policies.

All derivative financial instruments are recognized as assets or liabilities on the balance sheet and measured at fair value based on quotations obtained from financial institutions or brokers. The accounting for changes in the fair value of a derivative instrument depends on the intended use of the derivative and the resulting designation.



The fair values of all derivatives are separately recorded in the balance sheet within current assets and liabilities. Derivatives that are designated as hedges are classified as current depending on the maturity of the derivative.

The use of derivatives can give rise to credit and market risk. The Company tries to manage credit risk by entering into contracts with reputable banks and financial institutions. The use of derivative instruments is subject to limits, authorities and regular monitoring by appropriate levels of management. The limits, authorities and monitoring systems are periodically reviewed by management and the Board. The market risk on derivatives is mitigated by changes in the valuation of the underlying assets, liabilities or transactions, as derivatives are used only for risk management purposes.

#### Embedded derivatives

Derivatives embedded in other financial instruments or other contracts are treated as separate derivative contracts and marked-to-market when their risks and characteristics are not clearly and closely related to those of their host contracts and the host contracts are not fair valued.

#### Cash flow hedges

The Company also enters into commodity price contracts for hedging highly probable future forecast transaction and account for them as cash flow hedges and states them at fair value. Subsequent changes in fair value are recognized in equity until the hedged transaction occurs, at which time, the respective gains or losses are reclassified to the Statement of Profit and Loss.

#### Fair value hedges

The fair value hedges relate to commodity price risks and foreign currency exposure. The Company's sales are on a quotational period basis, generally one month to three months after the date of delivery at a customer's facility. The Company enters into forward contracts for the respective quotational period to hedge its commodity price risk based on average LME prices. Gains and losses on these hedge transactions are substantially offset by the amount of gains or losses on the underlying sales. There were no fair value hedges for the period ended March 31, 2018.

#### Non-qualifying/economic hedges

Non-qualifying hedges related to commodity price risks and foreign currency exposure. The Company's sales are on a quotational period basis, generally one month after the date of delivery at a customer's facility. The Company enters into forward contracts for the respective quotational period to hedge its commodity price risk based on average LME prices. The Company enters into forward foreign currency contracts and commodity contracts (for the period ended March 31, 2018) which are not designated as hedges for accounting purposes, but provide an economic hedge of a particular transaction risk or a risk component of a transaction. Fair value changes on such forward contracts are recognized in the Statement of Profit and Loss.

The fair value of the Company's derivative positions recorded under derivative financial assets and derivative financial liabilities are as follows:

Derivative financial instruments	As at March 31, 2018		As at March 31, 2017	
	Asset	Liability	Asset	Liability
<b>Current</b>				
<b>Cash flow hedges*</b>				
Commodity contracts	-	95	-	-
<b>Non - qualifying hedges</b>				
Commodity contracts	4	-	2	-
Forward foreign currency contracts	4	1	-	47
<b>Total</b>	<b>8</b>	<b>96</b>	<b>2</b>	<b>47</b>

\*Refer Statement of Profit and Loss and Statement of Changes in Equity for the change in the fair value of cash flow hedges.

- 36. A.** The following are the outstanding forward exchange contracts entered into by the Company and outstanding as at year end

(in Crore)

Currency	Foreign currency	Indian Rupees	Buy / Sell	Cross Currency
<b>As at March 31, 2018</b>				
AUD	0	9	Buy	INR
EUR	3	221	Buy	INR
USD	5	296	Buy	INR
AUD	0	19	Buy	USD
EUR	3	227	Buy	USD
JPY	8	5	Buy	USD
SEK	2	19	Buy	USD

(in Crore)

Currency	Foreign currency	Indian Rupees	Buy / Sell	Cross Currency
<b>As at March 31, 2017</b>				
EUR	2	164	Buy	INR
USD	22	1,431	Buy	INR
AUD	1	33	Buy	USD
EUR	3	203	Buy	USD
GBP	0	3	Buy	USD
SEK	1	7	Buy	USD

- B. The following are the outstanding position of commodity hedging open contracts as at March 31, 2018:**

Zinc forwards/futures sale / buy for 83,125 MT (2017: 1,700 MT)

Lead forwards/futures sale/buy for 17,275 MT (2017: 2,775 MT)

Silver forwards/futures sale/buy for 9,06,652 Oz (2017: 126,684 Oz)

- C. All derivative and financial instruments acquired by the Company are for hedging purposes.**

- D. Unhedged foreign currency exposure**

(₹ in Crore)

Particulars	As at March 31, 2018	As at March 31, 2017
Debtors	54	58
Creditors	490	257

**37. CAPITAL MANAGEMENT**

The Company's objectives when managing capital is to safeguard, maintain a strong credit rating and healthy capital ratios in order to support its business and provide adequate return to shareholders through continuing growth. The Company's overall strategy remains unchanged from previous year. The Company sets the amount of capital required on the basis of annual business and long-term operating plans which include capital and other strategic investments. The funding requirements are met through a mixture of internal accruals, equity and short term borrowings. There are no short term and long term borrowings outstanding as at end of the year. The Company monitors capital on the basis of net debt to equity. Equity comprises all components including other components of equity. The Company is not subject to any externally imposed capital requirement.

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Equity</b>	<b>35,932</b>	30,805
Cash and cash equivalents (See Note 11)	173	189
Short term investments (See Note 9)	20,222	23,783
Total cash (a)	20,395	23,972
Total debt (b)	-	7,908
Net debt (c = (b-a))	-	-
Total equity (equity + net debt) (See Statement of changes in Equity)	35,932	30,805
<b>Net debt to equity ratio (gearing ratio)</b>	-	-

**38. RELATED PARTY****a. List of related parties:****Particulars****(i) Holding Companies:**

Vedanta Limited (Immediate Holding Company)  
Vedanta Resources Plc. (Intermediate Holding Company)  
Volcan Investments Limited (Ultimate Holding Company)

**(ii) Fellow Subsidiaries (with whom transactions have taken place):**

Bharat Aluminium Company Limited  
Sterlite Technologies Limited  
Sterlite Power Transmission Limited  
Malco Energy Limited  
Talwandi Sabo Power Limited  
Copper Mines of Tasmania Pty Limited  
Konkola Copper Mines Plc.  
Fujairah Gold FZC  
Black Mountain Mining (Pty) Limited  
Namzinc (Pty) Limited  
Vizag General Cargo Berth Private Limited

**(iii) Related Party having a Significant Influence**

Government of India - President of India

**(iv) Other related party**

Vedanta Foundation  
Madanpur South Coal Company Limited (jointly controlled entity)  
Hindustan Zinc Limited Employee's Contributory Provident Fund Trust  
Hindustan Zinc Limited Employee's Group Gratuity Trust  
Hindustan Zinc Limited Superannuation Trust

**b. Transactions with Key management Personnel:**

Compensation of key management personnel of the Company recognised as expense during the reporting period

(₹ in Crore)

Particulars	For the year ended March 31, 2018	For the year ended March 31, 2017
Short-term employee benefits <sup>(1)</sup>	8	6
Sitting fee and commission to directors	1	1
Share-based payment transactions	2	1
<b>Total compensation paid to key management personnel</b>	<b>11</b>	<b>8</b>

<sup>(1)</sup> Excludes gratuity and compensated absences as these are recorded in the books of accounts on the basis of actuarial valuation for the Company as a whole and hence individual amount cannot be determined.

**c. Transactions with Government having significant influence:**

Central government of India holds 29.35% shares in HZL. During the year, Company has availed incentives in the form of export incentive under Export promotion and credit guarantee scheme announced by the Government of India. Also, HZL has transactions with other government related entities (Public sector undertakings) including but not limited to sales and purchase of goods and ancillary materials, rendering and receiving services and use of public utilities.

**d. Transactions with Related Parties:**

The details of the related party transactions entered into by the Company, for the period ended March 31, 2018 and March 31, 2017 are as follows

(₹ in Crore)

Nature of transactions	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Sale of Goods</b>		
Vedanta Limited	16	1
Sterlite Technologies Ltd	-	5
Sterlite Power Transmission Ltd	-	10
Namzinc (PTY) Ltd	-	2
Fujairah Gold FZC	13	18
<b>Total</b>	<b>29</b>	<b>36</b>
<b>Sale of property, plant and equipment</b>		
Vedanta Limited	1	1
Bharat Aluminium Company Limited	-	0
<b>Total</b>	<b>1</b>	<b>1</b>
<b>Purchase of property, plant and equipment</b>		
Vedanta Limited	-	0
Bharat Aluminium Company Limited	0	-
<b>Total</b>	<b>0</b>	<b>0</b>
<b>Interest Income</b>		
Bharat Aluminium Company Limited	-	18
<b>Total</b>	<b>-</b>	<b>18</b>
<b>Purchase of Goods</b>		
Vedanta Ltd	11	28
Bharat Aluminium Company Limited	25	17
Sterlite Technologies Ltd	1	4
Sterlite Power Transmission Ltd	10	3
<b>Total</b>	<b>47</b>	<b>52</b>

Nature of transactions	(₹ in Crore)	
	For the year ended March 31, 2018	For the year ended March 31, 2017
<b>Dividend</b>		
Vedanta Limited	2,195	8,065
Government of India	998	3,669
<b>Total</b>	<b>3,193</b>	<b>11,734</b>
<b>Other Expenses and other reimbursements</b>		
Vedanta Limited	104	139
Fellow Subsidiaries	0	(5)
	<b>104</b>	<b>134</b>
<b>Loan given and repaid during the year<sup>(1)</sup></b>		
Bharat Aluminium Company Limited ('BALCO')	-	500
<b>Total</b>	<b>-</b>	<b>500</b>
<b>Donations</b>		
Vedanta Foundation	0	50
<b>Total</b>	<b>0</b>	<b>50</b>
<b>Contribution to:</b>		
Hindustan Zinc Limited Employee's Contributory Provident Fund Trust	30	31
Hindustan Zinc Limited Employee's Group Gratuity Trust	16	25
Hindustan Zinc Limited Superannuation Trust	2	2
<b>Total</b>	<b>48</b>	<b>58</b>

(1) The Company had given a loan to BALCO of ₹500 Crore carrying an interest of 10.3% for meeting short term commitments. The loan amount has been repaid by BALCO along with interest thereon of ₹18 Crore.

All the transactions entered by the Company with the related parties are at arm's length price.

The balances receivable/payable as at year end:

Particulars	(₹ in Crore)	
	As at March 31, 2018	As at March 31, 2017
<b>Receivable From</b>		
Konkola Copper Mines Plc.	1	4
Vedanta Ltd.	10	-
Fujairah Gold FZC	13	5
<b>Total</b>	<b>24</b>	<b>9</b>
<b>Payable To</b>		
Bharat Aluminium Company Limited	5	4
Vedanta Ltd.	22	21
Sterlite Power Transmission Limited	3	-
Sterlite Technologies Limited	-	1
Hindustan Zinc Limited Employee's Contributory Provident Fund Trust	9	3
Hindustan Zinc Limited Employee's Group Gratuity Trust	62	16
Hindustan Zinc Limited Superannuation Trust	0	0
Vedanta Ltd (Dividend payable)	1,646	7,544
<b>Total</b>	<b>1,747</b>	<b>7,589</b>



39. No significant events have occurred subsequent to the balance sheet date which may require additional disclosures on any adjustments to the financial statements.
40. Previous year figures have been regrouped/reclassified where ever necessary, to conform to those of the current year presentation

See accompanying notes to financial statements.

As per our report on even date

For **S. R. Batliboi & Co. LLP**

Chartered Accountants

ICAI Firm Registration No.: 301003E/E300005

**per Raj Agrawal**

Partner

ICAI Membership No.: 82028

Date: April 30, 2018

Place: Gurugram

For and on behalf of the Board of Directors

**Sunil Duggal**

CEO & Whole-time Director

DIN: 07291685

**Amitabh Gupta**

Chief Financial Officer

Date: April 30, 2018

Place: Mumbai

**A. R. Narayanaswamy**

Director

DIN: 00818169

**R. Pandwal**

Company Secretary

ICSI Membership No.: A9377

# CORPORATE INFORMATION

## BOARD OF DIRECTORS

**MR. AGNIVESH AGARWAL**

Chairman

**MR. NAVIN AGARWAL**

Director

**MR. A R NARAYANASWAMY**

Director

**MR. ARUN L TODARWAL**

Director

**MS. REENA SINHA PURI**

Director

**MS. FARIDA M NAIK**

Director

**MR. SUDHIR KUMAR**

Director

**MR. SUNIL DUGGAL**

Chief Executive Officer & Whole-time Director

## BANKERS

IDBI Bank Limited  
ICICI Bank Limited  
HDFC Bank Limited  
State Bank of Bikaner & Jaipur  
Yes Bank Limited  
Standard Chartered Bank

## CHIEF FINANCIAL OFFICER

**MR. AMITABH GUPTA**

## COMPANY SECRETARY

**MR. RAJENDRA PANDWAL**

## REGISTERED OFFICE

Yashad Bhawan  
Udaipur - 313004  
Rajasthan, India

## STATUTORY AUDITORS

**SR BATLIBOI & CO. LLP**

**Chartered Accountants**

Golf View Corporate Tower-B  
Sector 42,  
Near DLF Golf Course,  
Gurgaon, Haryana - 122002

Zinc Football


Desh Ka Sapna, Goal Apna

**PASSION**  
**WILL BRING US**  
**PRIDE**



HINDUSTAN ZINC

Zinc Football is the CSR initiative of Hindustan Zinc Limited aiming to usher in a football revolution in Rajasthan and empower communities.

Be a part of this amazing journey by following us on  ZincFootball



**HINDUSTAN ZINC LIMITED**

**Hindustan Zinc Limited**

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