

# RISK MANAGEMENT Framework

Hindustan Zinc is exposed to a variety of risks inherent to global mining and resource organization. The philosophy of risk management in Hindustan Zinc encompasses strategy & operations and seeks to pro-actively identify, address and mitigate existing and emerging risks.

The Company has a robust risk management framework to identify and mitigate risks arising out of internal as well as external factors. 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 system. The risk management framework is reviewed annually by the Audit Committee on behalf of the Board which 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. While our Risk Management Framework is designed to help the organisation meet its objective, there can be no guarantee that our risk management activities will mitigate or prevent these or other risks from occurring.

## 1 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 sustain output in future, considering the planned tapering of Rampura Agucha open cast mine and transition from predominantly open cast operations to fully under-ground operations in next five years.

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 optimization to endorse mining projects' technical feasibility and mine stability, particularly considering the simultaneous operation of underground and open-cast mines at Rampura Agucha. Renowned global contractors for shaft sinking, 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. As an example, when we encountered unanticipated geotech conditions at Rampura Agucha underground project resulting in slippages in timelines, corrective actions were taken at mine level by bringing in expatriate crew for rapid development of declines while at Company level it was decided to go for deepening of the open pit at Rampura open cast mine and other underground

mines project were put on fast track, ensuring overall company's growth remained on track.

## 2 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 programme, benchmarks with best-in-class peers, increase automation to reduce manual-interface and focuses on asset optimization & utilization. We are also pursuing savings and synergy initiatives in commercial activities, in order to further reduce costs and improve overall financial performance of our operations. These initiatives include aspects such as optimising supplier portfolio, consolidating purchases, combining logistics activities and develop closer relationships with key vendors to get benchmark performance and reduce costs.

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

## 3 People Risk

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

Our highly skilled workforce and experienced management team is critical in maintaining our current operations, implementing our development projects and achieving long-term growth. We continue to invest in initiatives to widen our talent pool. Looking at our 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. 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.

## 4 Reserve & Resource (R&R) and Discovery Risk

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

Our strategic priority is to extend our resources at a faster rate than we deplete them, through continuous focus on drilling and exploration programmes. In order to achieve this, we have 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 greater than twenty-five years. The Company also engages the services of independent global experts annually to ascertain and verify the quantum and grade of R&R.

Additionally, the Company has a robust exploration programme for new tenements where it has an active portfolio and it has preferential right under MMDRA Act 2015 at different stages of approval. Company is also looking at participating in mineral auctions opened up by the Government recently.

## 5 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 failure may 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 goodwill.

Our focus on HSE goes well beyond complying with international & local regulations and standards. Our key priorities are to protect our people, communities & the environment from harm and our business operations from interruptions. The Company has implemented a set of standards that align our sustainability framework to globally accepted international practices like IFC, ICMM and OECD standards. We are now midway through a four-year journey with DuPont to enhance our safety culture. The Company regularly monitors occupational health: hazard identification & analysis has been incorporated in all critical operations. We focus on capturing leading indicators to eliminate accidents while continuing to invest in training our employees and contractors, remaining focused on creating a zero-harm culture across the organization. All safety and environmental incidents are thoroughly investigated for root cause analysis and to eliminate recurrence.

The Company has undertaken several initiatives to control air, water and sound pollution including dust suppression by water sprinklers and tankers, delayed blasting for minimal vibrations & dust, regular air monitoring, waste and tailing dam management to maintain greenery and zero discharge etc

### 6 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 our sustainability journey. The Company regularly

engages with local bodies and communities to help them identify their priorities through need assessment and articulate programmes around assessed needs. We also seek to identify and minimise potential negative impact caused by our operations and act transparently and ethically. We promote dialogue with communities and have developed grievance cells at each of our locations. Further details of CSR activities are included in the sustainability section and also covered in our Sustainability Report.

### 7 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 our 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 and endeavours to achieve month-average rates both in currency and metal prices. The Company follows the policy of taking forward cover for net foreign exposure, if the net is payable in foreign currency, with negligible exposure in non USD currencies. 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.

### 8 Financial Risk

Like any large and complex business, the Company's operations are 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 to/its' plant and capital in order to ensure maximum return on its treasury operations. Treasury operations are managed within an overall framework encompassing regulatory compliances, third party verifications and external agency management assistance audits. The Company policy restricts trading or speculative calls and 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 programme balancing risks and costs and encompassing loss of profits and project risks, in addition to traditional asset risks.

## 9 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 operations and impact future projects.**

The Company endeavours to minimise its environment footprint and has several structured programs to reduce energy and water consumption, and maximise utilization of solid waste.

Supporting water conservation efforts of the government is a stated priority of Hindustan Zinc 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. Second phase of STP project is being planned to double the current capacity.

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 energy. Fly ash generated in power plants is sold to cement industry while our major waste from zinc smelters is neutralised in an environment friendly manner for which trials are ongoing for usage in construction and infrastructure industry.

## 10 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. The Company's well thought out tax planning strategies may sometimes get challenged resulting in long disputes which may not always go in Company's favour.

The Company proactively communicates with all government functionaries to ensure that its suggestions on industry-view 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.

## 11 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. Several safeguards and policies have been put in place to protect its network from cyber security attack. They are firewalls, intrusion detection & prevention systems, incident management system, content filtering, anti-spamming system, anti-virus and anti-spywares, password policy, encryption, backup, failover systems, disaster-recovery policy etc. Company carries out periodic penetration testing and vulnerability assessment.

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

The weakest link in the security chain is the human element and we are further automating our

processes and internal controls to minimise human intervention in all our operations.

### Internal Controls

We have effective and adequate internal audit and control systems commensurate with our business size. Regular audits of our 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 wherein majority are independent directors. Details on the composition and functions of the Audit Committee can be found in the chapter on Corporate Governance of the Annual Report.