



Sustainable Mining

SUSTAINABLE MINING

PURPOSE OF THE DOCUMENT

Hindustan Zinc aspires to become global leaders in sustainable mining and this position statement sets out our approach on the same. HZL's vision for sustainable mining is aligned to ensure that we make a positive impact across the entire mining value chain – right from exploration to closure - and deliver sustained business results. It is designed to challenge us to continuously innovate and lead in the metal and mining sector, integrating sustainability into each of our business decision. We believe that keeping sustainability at the heart of our decision-making will help us to earn stakeholder trust as well as enhance our social licence to operate. The idea of Sustainable Mining Plan is to go above and beyond compliance with mining law or regulatory requirements.

IMPACTS

There are some critical challenges that the mining industry must address such as health and safety and the way our operations make use of land, water, and energy. At HZL, we believe that more than the work we do, the footprint we leave matters the most. The present society rightly expects us to contribute positively to our host communities and society as a whole and therefore, our Sustainable Mining Plan will drive a holistic approach to our interventions aimed at community development, i.e., in health, education, and livelihoods. Along with positive contribution to socio-economic development, it is equally important for us to bring down our environmental footprint as well as deliver positive biodiversity outcomes.

COMMITMENTS & PARTNERSHIPS

HZL is committed to a long-term vision that protects environmental, social, and business values for our people, communities, and nature. We are continuously improving our performance and working towards low cost, scalable mining with a reduced, sustainable environmental footprint.

We are members or supporters of various organizations such as industry associations, NGOs and civil society groups that provide a platform for advancing responsible and competitive mining. Our sustainable mining plan reflects principles of the **United Nations Global Compact (UNGC)**, to which we are signatories as well as **Federation of Indian Mineral Industries (FIMI)** guiding principles. We adhere to the Sustainable Development Framework of the **International Council on Mining and Metals (ICMM)**. We make contributions to the United Nations Sustainable Development Goals (SDGs) and have prioritised the goals based on our material issues as well as operational competency.

We play an active role in working with our industry sector partners such as the **Federation of Indian Mineral Industries (FIMI)**, **Confederation of Indian Industry (CII)**

and the **International Zinc Association (IZA)** in identifying and sharing best practices on Climate Change. We are also signatories to the CEO Water Mandate from 2019–2020. HZL is an active member of IUCN 'Leader for Nature India' initiative and has recently joined **Taskforce Nature-related Financial Disclosures (TNFD)** Member group – 'Protecting' in order to advance global collective ambition on enhancement of biodiversity. We are also part of official initial target Validation group of SBTN (Science Based Target for Nature).

Through all these partnerships, HZL is delivering on our commitment to creating the foundations for long-term sustainable development in our operating areas, even beyond the mine lifecycle.

GOVERNANCE

At HZL, we have a three-tiered sustainability governance framework that enables us to strive towards our vision of sustainable mining. It is through this framework that we organize our thoughts and ideas, undertake informed planning, evaluate activities, and ensure accountability on all aspects of environmental, social and governance issues. It also enables us to set short- and long-term goals and monitor performance systematically in alignment with the sustainability priorities at every level of the organization.

COMMITTEE LEVEL	ROLES & RESPONSIBILITIES
Sustainability and ESG Committee at Board (Tier 1)	- To assist the Board in meeting its responsibilities in relation to the ESG matters & ensuring strong governance for sustainability, Committee meets semi annually. - Providing guidance to ensure continual improvement in Sustainability performance and implementation of appropriate processes & policies across the company - Responsible for structuring Sustainability Strategy and long-term goals & targets, also plays a key strategic role in all business decisions to ensure workplace safety, eliminating any potential damage to environment, enhancing a commitment towards stakeholders, and maintaining Company's reputation as one of leading - Sustainable Metal & Mining company

COMMITTEE LEVEL	ROLES & RESPONSIBILITIES
Sustainability Committee at Company Level (Tier 2)	• Chaired by CEO and involving 10-communities heads and other executive committee members • Meets monthly to review the progress against all Sustainability Goals • Responsible for formulating sustainability strategy as well as the long-term goals & targets of the Company. • Plays a strategic role in all business decisions for ensuring workplace safety & eliminating any potential damage to the environment • Sustainability Communities (consisting of champions of all the units), that meet on monthly basis
SBU Level ESG Committee at Site Level & Sustainable Development Unit (SDU) at each of Mining SBUs (Tier 3)	• It ensures the implementation of sustainability practices pertaining to ESG aspects in alignment with the guidance provided by the committees at the above two tiers to achieve the sustainability goals • Role of SDU is to ensure site-level governance of sustainable mining and also discuss on updates regarding mine-closure plan before submission to Indian Bureau of Mines

POLICIES AND STANDARDS

All operational sites including new projects comply with the Code of Conduct, Policies, Management and Technical Standards (as applicable), national, regional and local regulatory requirements and international standards (e.g. IFC, ICMM, OECD, UNGC etc.); Sustainability-related matters are given equal priority to other business functions when considering new projects. We have aligned all our policies and standards such as:

ESIA Standard- Delineates process of identifying environmental and social risks and managing impacts of the HZL projects over the life cycle of the asset- from exploration through development, operations and to closure.

New Projects, Planning Processes & Site Closure Standard- provides a roadmap on how sustainability issues should be considered on new projects through their life-cycle. This will include consideration of sustainability issues during exploration, feasibility and evaluation, design and planning for operation, decommissioning, closure and post-closure including rehabilitation.

Sustainability Policies & Standards- HSE Principles and Policy, Energy & Carbon Policy, Water Policy, Biodiversity Policy, Tailing Dam Management Policy, Sustainable Sourcing Policy, and CSR Policy to help us work towards our vision of sustainable mining. Also, we follow the sustainability framework of our parent company Vedanta, which is based on four pillars, i.e., Responsible Stewardship, Building Strong Relationships, Adding & Sharing Value, and Strategic Communications. This framework comprises of various standards and guidance notes which facilitate the execution of HZL's sustainability strategies.

Site Closure Technical Standard- Systems and processes which ensure operations consider sustainability issues before, during and after site closure. Site closure plans shall be developed as early as feasibly possible, ideally in the early development phase of a new site, to identify, minimise or mitigate and manage risks (environmental, socio-economic, reputational and health and safety) associated with site closure.

OUR STRATEGY

The Sustainability implementation Roadmap provides guidance to mine team on developing mine sustainability goals aligned with corporate sustainability goals; designing and implementing sustainability interventions; and reporting performance. It also provides guidance on incorporating mine specific factors such as the stage of the mine in its lifecycle, type of mineral and extraction methodology and land ownership, to name a few, while defining goals and designing interventions thus allowing each mine to prioritise issues and design solutions, which are best suited to its requirement.

Hindustan Zinc - Learning and Development Best Practices

	EXPLORATION	DEVELOPMENT	OPERATIONAL	SITE CLOSURE
STAGES	Understanding the environmental & social risks at the exploration stage	Incorporating the sustainability factors into mine plan	Integrate Sustainability to Developing goals and targets	Have a stakeholder centric site closure plan for managing long term impacts
ACTIVITIES	- Conducting ESIA studies- understand local community concerns, environmental and social impacts - Develop mine closure plan	Incorporate local community needs, environmental and social risk mitigation actions into the mine plan	- Develop annual and long term targets - Design interventions related to energy, waste, climate, biodiversity, human rights, safety etc. - Develop a plan to execute different initiatives - Review & report performance - Stakeholder Engagement	Site Closure plan focussed on training local people or engaging with other organizations in order to improve local development opportunities.

Innovation strategy, enabling technologies, and collaborative partnerships are the key aspects that guides our Sustainable Mining Plan. By exploring the links between technology & data intelligence and our sustainability outcomes, we aim to come up with innovative strategies that can be implemented with close collaboration with relevant authorities/stakeholders.

Broadly, our strategy for sustainable mining plan is focused to ensure positive impact across the 3 focus areas:

1. Identifying and managing Environmental & Social Risks across Lifecycle of asset

New Projects: HZL ensures that all new projects consider and integrate sustainability issues/aspects into the project concept, feasibility, and design and development process including closure planning. Where changes to plants or operations are undertaken that are not considered as 'new projects', but they need to undergo a formal ESIA/permitting process, the changes should meet the requirements as set out in the Management of Change Management Standard. A commitment to continual improvement is adopted as part of the project concept that takes into account positive and negative impacts and direct and indirect impacts. Consultation and feedback is obtained from stakeholders at the earliest opportunity on how sustainability issues associated with the project are being considered and prioritised. This is in alignment with Principle 2 of ICMM (Integrate sustainable development in corporate strategy and decision-making)

Planning: A sustainability risk screening exercise is conducted and depending on the nature and scale of the project, this may involve consultation with external stakeholders (recognising commercial sensitivities may

preclude stakeholder engagement early in the project cycle). The sustainability risk assessment process enables HZL to identify, analyse and evaluate current and future sustainability scenarios, as far as practical, and identify critical risks to HZL and the project. These may include, but not be limited to, resettlement, Indigenous People (Vulnerable Groups), significant loss of cultural heritage, biodiversity including protected land and endangered species.

Requirements for sustainability-related operating permits and licences are identified and, where applicable, appropriate permits and licences are obtained prior to project commencement and in accordance with statutory timelines. A baseline Environmental, Social and Impact Assessment (ESIA) is commissioned as part of every potential new project or expansion activity and during the lifetime of every project to ensure that environmental, social and health impacts are systematically considered in all business decisions. An Environment and Social Management Plan (ESMP) is prepared in consultation with key stakeholders covering impacts, severity, mitigation plan(s), priority, person responsible, resources required, timeline, success indicators, internal and external reporting requirements etc. commensurate to the impact of the project. Regular reviews of ESIA, ESMP implementation, Mine Closure Plan, Tailings and ARD Management are conducted during the study and project execution.

Commissioning: Construction and commissioning plans outline operational requirements as well as sustainability-related national, regional and local regulatory requirements. Sufficient and appropriate project plans, risk assessments and method statements are put in place to manage sustainability issues

(including health, safety, environmental, social issues and human and vulnerable social group rights). Key safety priorities are considered and adhered to, as a minimum, in relation to vehicle and pedestrian traffic movements, working at height, lighting operations, working in confined spaces, excavations and hot work activities.

2. Managing Environmental & Social Impacts across the Development, Operational and Closure stage

HZL operations ensure that potential sustainability risks and impacts associated with the projects including new projects are managed during the operational phase following the Exploration and development phase. The operational phase of the project should meet permit and licence requirements as well as local, regional and national regulatory requirements and other international standards (e.g. IFC performance standards, ICMM principles etc.). Operational plans (e.g. environmental management plans (EMPs), site safety plans etc. and risk management programmes are implemented. Operational activities and the effectiveness of plans (including the implementation of control measures) shall be monitored and reviewed on a periodic basis by competent personnel.

As part of sustainable mining plan, we try to minimize negative impact to environment by ensuring our performance is on track with respect to our Sustainability Strategy and thereby embark on a journey to create water-less carbon neutral mines with positive biodiversity outcomes. Environmental impacts include- Climate change, Water Management, Biodiversity, Waste, Tailing Management, Air Quality. For more information on how we manage our environmental impacts, refer to our approach note on **Energy & Climate, Biodiversity Management, Water Management, Air Quality Management, Waste Management, Responsible Production and Responsible Tailings Management**

Our strategy also focuses on improving the lives of the communities in the areas where we operate. We contribute to local development through infrastructure development as well as livelihood opportunities for locals. We make this possible by engaging with other organizations or training local people to improve the development opportunities. This is done in collaboration with communities and active participation of other local groups who are impacted or likely be impacted by the project. All the activities are thoroughly reviewed and communicated to relevant stakeholders. For more information on how we manage our environmental impacts, refer to our approach note on **Human Rights and Health & Safety**.

3. Asset Closure Management

As per ICMM guidelines, responsible asset closure involves close collaboration/consultation with the relevant stakeholders and authorities while planning and designing for closure. In addition, adequate financial provision is also crucial to realise the closure and post-closure commitments that we have agreed upon. According to the MCDR, 2017 guidelines, the final closure plan must be submitted two years before the proposed closure of mines. We also review and update our mine closure plans annually. Currently, none of our mines are nearing the closure phase. By adhering to the management approach, we ensure that our operations are conducted responsibly, minimising long-term environmental impact and promoting sustainable land management practices.

Site Closure: At HZL, sustainable mine closure is embedded from the very inception of the mine lifecycle. We adopt a progressive mine closure approach, wherein closure plans are developed in parallel with mining plans, ensuring that environmental, social, and economic considerations are integrated throughout the operational phase. This forward-looking strategy enables us to rehabilitate land systematically, restore biodiversity, and support post-mining community resilience in a phased and responsible manner. This ensures that our sites are designed, constructed, and operated with closure in mind. By following these plans, we continuously and sequentially carry out various activities throughout the mine cycle to ensure that our operations are culminated effectively and environmentally.

We adhere to the requirements for decommissioning and site closure as outlined in the Vedanta Technical Standard on Site Closure. In addition, we are required to ensure that the systems and procedures which we have in place are aligned with the requirements of international standards such as ICMM Principles, IFC development/performance standards, and IFC EHS guidelines. We have a multi-disciplinary team of competent persons to develop and review closure plans, which are then approved by persons with appropriate seniority. Wherever required/applicable, impact assessment and consultation processes are undertaken by HZL.

The practice of backfilling underground voids is an essential aspect of our mining operations. This approach aims to ensure the continuity and efficiency of mining and also enhances the stability of surrounding rocks at both regional and local levels. Furthermore, it reduces the need for construction of expensive tailings storage facilities and minimises environmental impact by securely containing waste materials underground. These initiatives collectively contribute to our overarching objective of establishing a post-operational mine site that is safe, environmentally sustainable and visually pleasing.



Our closure plans are developed based on the following aspects:

- Mine closure is embedded in project design from inception through a comprehensive knowledge base of the operating environment, including socio-economic, cultural, environmental, legal, and regulatory factors
- Closure plans are progressively developed with a five-year horizon, including clear targets and KPIs. Sufficient funds are set aside to cover closure and rehabilitation, and this would be enough to ensure the successful implementation of the closure plan, whether under a planned or premature closure. We obtain statutory approvals for our progressive mine closure plans, which support the preparation and approval of the final mine closure plan. It also includes remediation, post closure land use and biodiversity aspects.
- Closure plans are developed through a detailed consultation process involving internal teams, local communities, and government agencies. This inclusive approach ensures stakeholder expectations are understood, residual impacts are communicated, and post-closure land use objectives are collaboratively shaped. The plans incorporate measurable performance targets across mine design, socio-economic development, employee relations, biodiversity, land rehabilitation, and long-term land use, reflecting stakeholder-agreed priorities.

Sufficient funds are set aside to cover closure and rehabilitation, and this would be enough to ensure the successful implementation of the closure plan, whether under a planned or premature closure. We secure the necessary approvals from statutory authorities for both the progressive and final mine closure plans. The progressive mine closure plan is prepared for a period of five years with clear targets and KPIs. The closure plan prioritises the restoration and rehabilitation of abandoned areas, with a primary focus on fostering long-term environmental sustainability in the regions and communities surrounding our operations. It also includes remediation, post closure land use and biodiversity aspects. We highly value the input of our stakeholders, including local communities and government agencies, in shaping post-closure land use and related objectives. By actively involving various stakeholder groups in the development of the closure plan, we ensure that their requirements and concerns are thoroughly identified and effectively addressed.

Resource Transformation: Resource transformation is an important aspect when it comes to responsible asset closure management. For this the systems in place at HZL must ensure that our local communities have other forms of resources and capital once any of our mine is closed. We are committed to rehabilitate the land to minimize negative impacts and maximize benefits, by promoting a sustainable use for the site after closure, which leaves a positive legacy for both the local communities and the environment. This is determined through comprehensive multi-stakeholder engagement and includes rehabilitation of the surrounding area and protection of water resources.

HZL's post mining land use procedure includes the following:

- All mined out stope voids will be back filled
- Mine waste will be utilized for filling mining voids
- All equipment will be removed from surface and below ground
- All mine entries will be sealed and properly fenced off
- Mine infrastructure will be removed
- Area will be restored to natural ground profile, including drainage, as practicable & revegetated
- Any potential area of soil contamination will be checked and decontaminated by excavating the contaminated portion and replacing with fresh soil
- Plantation done will be maintained
- Necessary approvals will be taken from statutory authorities for Progressive & Final Closure Plan
- After reclamation, surveillance & monitoring will be done

The duration of post closure monitoring is defined on a risk-based approach and is site-specific. At HZL we recognize that post closure, it is our responsibility to rehabilitate the land – cleansed and revegetated by keeping in mind the long-term environmental sustainability of the region and surrounding communities.