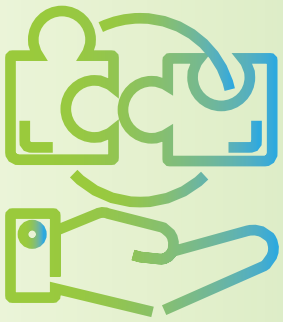

Responsible Production

RESPONSIBLE PRODUCTION

PURPOSE OF THE DOCUMENT

Responsible Production refers to an approach that aims to understand, reduce, and communicate the environmental, safety, health, and social impacts of products throughout its life cycle.

To ensure the mining and metals industry contributes to sustainable development, ICMM guidelines suggest companies to produce materials that are safe to use: safe for the environment and safe for humans. At HZL, we believe that to be recognized as a responsible metal producer, our business strategy and existing efforts needs to be aligned in such a way that it gives due consideration to Responsible Production

ALIGNMENT TO ICMM

Hindustan Zinc Limited (HZL) integrates sustainability into its core operational and project planning processes, guided by its Management Standard for New Projects, Planning, and Site Development. The company proactively recognizes provisions for decommissioning costs of smelting and refining facilities, ensuring responsible closure practices. Resource management is embedded across the production value chain, with ongoing initiatives in waste, water, and energy optimization. HZL's decision-making framework incorporates environmental and social variables, balancing economic efficiency with sustainability. Through targeted R&D investments, the company explores innovative, cost-effective solutions that enhance resource stewardship. Additionally, HZL has conducted Product Life Cycle Analysis for Zinc and is progressing with similar assessments for Lead and Silver, supported by the release of Environmental Product Declarations.

We have multiple partnerships and commitment, more of which can be read in our Membership & Associations Approach Note

GOVERNANCE

The Board Level **Sustainability and ESG Committee** is aligned with our Responsible Production commitment and facilitates our efforts towards the accomplishment of our goals and Environmental, Social and Governance priorities.

The committee is led by an independent director as the chairperson of the committee. The role of the Sustainability and ESG Committee is to assist the Board in meeting its responsibilities in ESG matters and to ensure a strong governance on sustainability matters. It is also responsible for providing oversight on sustainability strategy, setting long-term goals & targets, ensuring continual improvement of our sustainability related performance as well as implementation of appropriate processes and policies across the Company. It also plays a key strategic role in eliminating potential damage to the environment and enhance our commitment towards stakeholders.

- The Board Committee is supported by the Executive Sustainability Committee at the corporate level, chaired by CEO and includes senior executives to oversee delivery of the programs. The Executive Committee is responsible for sustainability, health and safety, environment, community, waste management. The Committee is also meant to oversee the resolution of all grievances in a timely manner. The ESC consists of multi-functional representation of senior leaders.
- The Waste to Wealth Community is responsible for monitoring the waste disposal, use and reuse.
- Central Safety and occupational health council oversees compliance with safety standards, and regularly reviews safety risks and strategic issues, including tailings, toxicity etc.
- Supply Chain Community oversees our responsible sourcing strategy

PRODUCT STEWARDSHIP

While HZL's core product portfolio consists of zinc, lead and silver – critical minerals for industrial and economic development, the company has integrated product stewardship into its sustainability strategy.

While we have multiple efforts and initiatives for resource efficiency, use of recycled waste products as input materials, low-carbon product (EcoZen), metal recovery from waste, currently only ourHindustan Zinc Limited (HZL) has strategically aligned its wind power operations generate green revenue for us and aligns with the European Union (EU) Taxonomy for Sustainable Activities, specifically under Activity 4.1—Electricity Generation from Wind Power. This alignment underscores HZL's commitment to climate change mitigation and sustainable revenue generation.

HZL currently generates revenue from 273.5 MW of installed wind capacity located across Rajasthan, Gujrat, Maharashtra, Karnataka and Tamil Nadu which plays a vital role in decarbonizing its energy mix and reducing dependence on fossil fuels. These wind farms are not only a source of clean energy but also a key component of HZL's broader ESG strategy. The financial contribution from these assets is transparently reported in the company's audited financial statements

Our low-carbon product – EcoZen is poised to strengthen the company's sustainable portfolio. It is expected to be included in this category in the future, upon commencement of revenue generation through its commercial sales.

Ensuring diligent product stewardship, HZL has implemented the UN's Globally Harmonized System of Classification and Labelling of Chemicals as per ICMM Performance Expectation 8.2 wherein we have prepared Material Safety Data Sheets (MSDS) for all our products. Hazardous

Material Management enlists our procedure for the same. Further you may refer to Mercury Management section in Environment Management Approach Note

2. LIFE CYCLE ASSESSMENT OF PRODUCTION PROCESSES

We have conducted Life Cycle Assessment (LCA) study as per ISO 14040/44 standard, using the approach of "cradle to grave" for our Zinc, Lead and Silver products. The study was intended to establish the baseline impact of '1 ton of Zinc, Lead and Silver Production' for facilities of HZL.

A set of life cycle environmental impact indicators such as Abiotic Depletion of Fossil and Elements, Acidification Potential, Eutrophication Potential, Global Warming Potential, Ozone Layer Depletion Potential, Photochemical Ozone Creation Potential, Primary Energy Demand, Ecotoxicity, Human toxicity, Water Scarcity Footprint and Blue Water Consumption were considered. While comparing the results, it was found that HZL's results are at par with the world average data. Electricity consumption was identified as having maximum environmental impact on the value chain of zinc. Based on such findings, we accordingly make changes in our strategies and come up with new projects to bring down the impacts of our products and processes..

EPD is an independently verified and registered document that communicates transparent and comparable information about the life-cycle environmental impact of products.

The Company, through its sustainable business practices, provides long-term value for its stakeholders, communities and the environment. The EPD provides objective, comparable, and third-party verified data on the environmental performance of the Company's products throughout their lifecycle. Hindustan Zinc's EPD can be compared with EPDs from other manufacturers around the world, as it complies with ISO 14025:2006 and EN 15804:2012+A2:2019 standards.

We launched EcoZen, a low-carbon Zinc. We undertook a Product Carbon Footprint of Average Low Carbon SHGZ product based on mass balance approach as per ISO 14067: 2018 Standards along with Third Party Verification by an Independent International Reviewer.

3. MINIMIZING WASTE:

We recognize that our activities both mining and smelters can generate waste as a result of process. HZL's Waste to wealth community ensures that we continually improve our waste management practices so that we can reduce waste generation at source wherever possible, minimize waste generation by adopting best operational practices and circularity measures, and ensure responsible disposal. A key component to how we manage waste at each operation is ensuring compliance with applicable standards, regulations and permits for treating and recycling waste. The procedures are in place for managing all kind of wastes generated during the manufacturing of finished goods. We are using technology and innovation to reduce-reuse-recycle waste and restore natural systems, including land rehabilitation through top-soil cultivation and water reuse. Waste and land, as part of our efforts to transition to a circular economy. Company is also exploring technologies to extract the valuable residual metals and minerals. New chemicals are enabling the company to optimise the mining process, minimise wastage through the leaching process and significantly enhancing recoveries.

Some of our Initiatives include-

1. New cost effective and environment friendly reagents in mills for improved metal recovery
2. Improve recovery of metals in existing ancillary processes form the residue generated in zinc purification process
3. Hydroseeding techniques for mine site reclamation
4. Pyro slag treatments in high temperature processing for quality RZO production
5. Alternative route development for metal recovery from ISF blue powder
6. Sodium based salt production from effluent stream and its use in hydro process
7. Improving metal recovery and hematite production from jarosite waste.
8. Alternative low capex process for jarosite preparation for its use in cement industry, customer test planned
9. Improving Zn-electrowinning process for achievement of current efficiency

For details on how we are managing the waste, please see **HZL's Approach to Waste Management**.

4. RESEARCH & DEVELOPMENT

Our Research & Development (R&D) capabilities are playing an important role in propelling our Circular Economy goals. Among the various investments we have initiated in this regard is in the development of technology for mill tailings and various waste recycling projects to reduce our environmental footprint. We have also identified and replaced one of the hazardous reagent used in mineral floatation by non hazardous environment friendly reagent. Our R&D team has developed a laboratory process to recover Iron (Fe) from jarosite in the form of Fe2O3 (Hematite) product, a step towards adding value to waste products. Our dedication to environmental sustainability and waste recycling is actively evident in our approaches within Waelz kiln operation wherein optimizing metal recovery, secondary materials and reduce carbon footprint are critical objectives.

In an endorsement of its progress on its circularisation goal, the Company has been granted US patents for two of its sustainability technologies, developed in-house by our R&D center - ZnTech (formerly known as Central Research and Development Laboratory). US10844551B2 for manufacturing Paver Blocks from process waste US10919924B2 for the method of production of Potassium Antimony Tartrate

(PAT) by utilising Antimony bearing residues. Both these technologies are aimed at creating value from waste, that can be utilised within Company's operations and support local entrepreneurs and communities. This is also included in European patent list (EP 3192882) Both these technologies are aimed at creating value from waste, that can be utilised within Company's operations and support local entrepreneurs and communities. Alongside international recognition, such projects have also been granted Indian patents (IN 530897 and IN 541547).

5. CUSTOMER ENGAGEMENT

Ensuring **safe and responsible usage of our products** is an important aspect of our Responsible Production strategy. Relevant sustainability topics that are of importance to customers are considered and even incorporated into our materiality assessment process. We continuously engage with our customers with focus on new consumers, if any, to get them familiarized. We communicate with our customers and provide guidance to them via Mail. All the customers are provided with the Safety Data Sheet (SDS), that has all the relevant information about the product and its usages. And we continuously engage with the customers to ensure safe and responsible usage of our products. We also conduct studies on our product applications in various sectors to come up with value-added products and improved services for the relevant customers. Hindustan Zinc has published its 1st Environmental Product Declaration (EPD) for Zinc Products last year, which is applicable till 2028, which can be accessed by anyone.

HZL also conduct various seminar in association with International Zinc Association to educate about responsible usage of zinc in various industries like sheet, structure, pharma etc

In case of any modifications to our products, either as per customer requirement or for providing added benefits to our customers, we conduct studies in collaboration with subject matter experts. This is done to establish the techno commercial benefits of particular products, so as to pass on the learnings with our consumers for making their operations efficient in all aspects, save energy, etc. For instance, in case of Continuous Galvanising Grade (CGG) zinc alloy, which was produced as per consumer requirement, this kind of study was conducted, and the learnings were communicated to our consumers.

HZL carries out Biennial customer satisfaction survey. This year we conducted a survey through third party firm. The engagement was carried out to assess the health of relationship as well as to ascertain expectation level among customers while working with our Company.

In addition, guided by our Grievance Redressal Performance Standard, we have formal mechanisms in place to collect feedback from the customers. Vedanta Metal Bazaar portal is one-stop portal for the customers from buying the product to raising concerns or complaints, etc. Customers can raise their concerns or feedback on the portal. An automatic ticket will be raised and customers can monitor the progress of the complaint https://vedantametalbazaar.moglix.com/#/login.