



# SUSTAINABILITY REPORT 2020-21



Creating Value  
Touching Lives

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## List of Abbreviations

<b>GOI</b>	Government of India	<b>CPCB</b>	Central Pollution Control Board
<b>ABG</b>	Aditya Birla Group	<b>SPCB</b>	State Pollution Control Board
<b>EMIL</b>	Essel Mining & Industries Limited	<b>BCML</b>	Bhubaneshwari Coal Mining Limited
<b>PMPL</b>	Pro Mineral Private Limited	<b>RCML</b>	Rajmahal Coal Mining Limited
<b>MCL</b>	Mahanadi Coalfields Limited	<b>ECL</b>	Eastern Coalfields Limited
<b>APMDC</b>	Andhra Pradesh Mineral Development Corporation	<b>EMMRL</b>	EMIL Mines And Mineral Resources Limited
<b>NFA</b>	Noble Ferro Alloys	<b>ISO</b>	International Organization for Standardization
<b>GRI</b>	Global Reporting Index	<b>SASB</b>	Sustainability Accounting Standards Board
<b>ESG</b>	Environment, Social and Governance	<b>GHG</b>	Greenhouse Gas
<b>FY</b>	Financial Year	<b>INR</b>	Indian Rupees
<b>HEMM</b>	Heavy Earth Moving Machineries	<b>KL</b>	Kilo Litre
<b>MT</b>	Metric Tonnes	<b>M<sup>3</sup></b>	Cubic meter
<b>MTPA</b>	Metric Tonnes Per Annum	<b>MWh</b>	Mega Watt Hour
<b>GW</b>	Giga Watt	<b>KWh</b>	Kilo Watt Hour
<b>CFL</b>	Compact Fluorescent Lamps	<b>LED</b>	Light Emitting Diode
<b>HSD</b>	High Speed Diesel	<b>HFO</b>	Heavy Fuel Oil
<b>NG</b>	Natural Gas	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CO<sub>2</sub></b>	Carbon Dioxide	<b>PM</b>	Particulate Matter
<b>SO<sub>x</sub></b>	Sulphur Oxides	<b>COD</b>	Chemical Oxygen Demand
<b>BOD</b>	Biological Oxygen Demand	<b>ZLD</b>	Zero Liquid Discharge
<b>TSS</b>	Total Soluble Solids	<b>AWS</b>	Alliance for Water Stewardship
<b>WASH</b>	Water, Sanitation and Hygiene	<b>DSS</b>	Dust Suppression System
<b>ETP</b>	Effluent Treatment Plant	<b>STP</b>	Sewage Treatment Plant
<b>TNI</b>	Training Need Identification	<b>OHS</b>	Occupational Health and Safety
<b>SOP</b>	Standard Operating Procedures	<b>JSA</b>	Job Safety Analysis
<b>HIRA</b>	Hazard Identification and Risk Assessments	<b>SWP</b>	Safe Work Procedures
<b>LTI</b>	Loss Time Injury	<b>LTIFR</b>	Loss Time Injury Frequency Rate
<b>CSR</b>	Corporate Social Responsibility	<b>SHG</b>	Self-Help Group
<b>CII</b>	Confederation of Indian Industry	<b>FICCI</b>	Federation of Indian Chambers of Commerce and Industry
<b>EU</b>	European Union	<b>WHO</b>	World Health Organization
<b>UN</b>	United Nation	<b>COVID-19</b>	Coronavirus Virus Disease
<b>COP</b>	Customer Oriented Process	<b>CPT</b>	Circular Pelletizing Technology
<b>AI</b>	Artificial Intelligence		

# Messages from Leadership





# Message from Managing Director



**E**ssel Mining & Industries Limited's business strategy is to create value sustainably and operate responsibly. Our focussed approach towards sustainability is backed by strong policies and institutional frameworks that help us monitor our progress, innovate and build strong ties with stakeholders. Our future-proofing of business revolves around environment stewardship and bringing valuable stakeholder approach. There are long-term challenges in the industry that could be accentuated by an increasing demand for resources set against a backdrop of more complicated resource extraction, declining ore grades, and the growing volume of waste rock and process tailings. However, our resilient business model is well equipped to face the challenges of the future.

Currently we are in a phase of transformation globally. Financial metrics no longer suffice as the sole criterion to ascertain the capability of a company. Everyone from our investor to our customer is becoming conscious and trying to focus on the aspects of responsible consumption. As businesses navigate through changes brought in by globalization, technology, society and consumer behaviour, embedding Environment, Social,

and Governance (ESG) factors into our core strategy can help us deliver long-term value.

Mining industry globally is going through a paradigm shift. Most mining corporations around the world are trying to imbibe the principle of responsible mining and ESG represents one of the mining industry's most significant opportunities for long-term value creation.

Mining corporations around the world are gradually understanding the importance of engaging with their stakeholders and are refocussing on incorporating ESG into the core of their strategies. Transparency and disclosure around mining is one of the key factors that will help us create a more sustainable future. Miners need to consider key ESG issues such as effective supply chain, resource efficiency, conflict mineral transparency, human rights assessment and good governance and monitor the key factors periodically to ensure they reach their ESG goal.

The Indian scenario is also changing. We are gradually shifting to an initiative driven sustainability approach rather than being compliance driven. In order to curb the ill-effects of climate change, corporations across India are trying to take a proactive approach that goes beyond compliance.

Presently, the Indian industry is reeling under the effects of a major transformation taking place, with increasing regulatory and stakeholder pressure. Today, stakeholders are increasingly focussed not only on the financial return that they can earn on their investment, but also on how that return is made. With growing stakeholder capitalism, the business ecosystem has become more complex over the years. As the focus of businesses shifts from profit to holistic value creation for stakeholders, the means to determine value have also evolved from solely financial reporting to an integrated approach of correlating the positive and negative impacts of business operations and products with financial implications.

For the Indian mining and manufacturing Industry, compliance is also becoming complex as the government is focussing on creating a more sustainable business ecosystem. The regulatory structure to disclosure around sustainability is also changing. With the recent development of Business



Responsibility and Sustainability report framework, disclosure around sustainability will become more streamlined and mainstream, thereby encouraging many more companies to come forward and disclose.

The Aditya Birla Group has been one of the pioneers in developing mechanisms to combat climate change and socio-economic risks. Our three-layered strategy of 'Responsible Stewardship', 'Stakeholder Engagement' and 'Future-Proofing of Our Business' has been at the core of all the strategic decisions we take.

EMIL has always been compliant with all the regulatory requirements for smooth operations. But just abiding by the compliance rules is not enough for us. EMIL has gone a step ahead in creating value and solving key environmental and social concerns inherent to our business. Our environmental concerns majorly revolve around land use, mineral waste, and tailing management, as well as water management. We know that all these identified areas have the potential to expand beyond the confines of our business, severely impacting natural ecosystems, biodiversity, and relations with local communities, potentially resulting in social conflicts and jeopardizing operating licenses. We must continuously focus on our environmental risks and impacts, as well as the safety of our workers and communities to create a shared value. Proactive stakeholder engagement through adequate, inclusive consultation processes and grievance mechanisms are a prerequisite for us. We have adopted the principle of responsible mining. Our iron ore mine in Koira has always been in the forefront and has been conferred a five-star rating by the Union Ministry of Mines in 2017.

Our BCML and RCML coal mines, which have been acquired under a mine-developer-cum-operator (MDO) provision, have state-of-the-art facility to ensure that we deliver over and above, every time. All our newly acquired mines are designed to include all the critical aspects of sustainable mining. Land reclamation is one of the critical aspects we are currently working on. In collaboration with several specialised research organizations, we have been able to grow paddy on reclaimed land, which we believe will lead to the way of responsible mining in future.

We have recently forayed into the business of pelletization. The pelletization plant is the first such company in the world to incorporate the cost-effective circular pellet strategy that helps us in resource and energy conservation. All our mining facilities and plants have zero liquid discharge system and we are proud to disclose that we do not discharge any effluent.

Year 2020 was different in every sense. The turmoil created by Covid-19 was felt in the demand chain and in the slowdown of the economy. Due to the nationwide lockdown, most of our development projects, such as Bunder Diamond and Commercial Coal Mining project at Bandha and Radhikapur, were also brought to a standstill for some time. However, we started with renewed rigour once the lockdown was lifted. Though the first half of 2020 was slow in economic terms, the industry still picked up in the second and third quarters of 2021 and we were successful in recording a profit at the end of FY 2020-21. This is testimony of our business resilience that has been created based on experience of more than 61 years. As I look back, last year we had a good performance overall, achieved under some of the most volatile and unpredictable conditions imaginable. The results confirmed the strength of the brand legacy that we have created over the year as well as the agile systems we have in place to adjust to any negative externality.

It was all possible because of our employees who have worked relentlessly to make EMIL what it is today. The resolve, dedication and ingenuity of our people in the face of unprecedented challenges – combined with their willingness to pull together in the spirit of Aditya Birla Group – was undoubtedly a highlight of the year. It made me even more proud to lead the wonderful people of this great company. I can only thank them for what they have achieved over the last year for EMIL and for its many stakeholders. Looking forward, we will continue to focus on competitive growth in 2021. This will be a critical component of our entire plan for responsible growth.

In the coming year, we will continue to prioritise our multi-stakeholder business model, confident in the knowledge that it is one of the most holistic approaches to produce long-term value creation, in line with our vision and belief that responsible and sustainable business promotes exceptional performance. With a belief that we will continue to deliver what we promised, I am proud to present to you the first Annual Sustainability Report of EMIL, the report of FY 2020-21.

## Mr. Tuhin Mukherjee

Managing Director  
Essel Mining and Industries Limited



## Message from Chief Financial Officer



Since its formation in the year of 1950, Essel Mining & Industries Limited (EMIL) has strived to be the custodian of its stakeholder's value, living up to its mission to be the best in creating worth for its stakeholder. Our sustainability culture is directed by ABG's Business Sustainability Model. We have developed the strategies in various parameters in line with our Group's and Business's targets.

Mining industry is now seeing the transformation through the concept of Environment, Social and Governance (ESG) in order to navigate and balance the benefits to the planet, people and profit successfully. Investors have started to look beyond financial statements and now want to consider the ethics, competitive advantage and culture of a mining organization in order to measure mining investments.

Our company holds a responsibility towards our stakeholders to maintain a long-term sustainable financial status. Information on creation and distribution of economic value provides a basic indication of how our organization has created wealth for all the relevant stakeholders. As we grow – both in

terms of revenue and market positioning, our efforts in the space of Corporate Social Responsibility (CSR) are expanding. At EMIL we always believe in fair pay, as offering wages above the minimum is a factor in building strong community relations, employee loyalty, and strengthening an organization's social license to operate.

Sustainability came into sharp focus in 2020 in a variety of ways. The rapid spread of the Covid-19 virus and the changes it brought to our daily lives significantly impacted governments, corporates and individuals. Our comprehensive and flexible approach enabled our operations to respond appropriately to local needs and expectations. During Covid-19, we have supported the system by providing PPE Kits and oxygen pipelines for the needy to collectively fight against the pandemic

With focus on value creation for our stakeholders, we aim at leveraging sustainability initiatives to improve business performance through robust risk management, productivity of capital and growth through innovation. In the process of moving towards a resilient, responsible and reliable future we are committed to support the decision-making process by enhancing the relevant tools and techniques.

On a closing note, I would like to highlight that costs of physical impacts and business disruptions arising from climate change can be considerable for the industry. Mining still depends heavily on fossil fuels for power generation, while water stress will continue to rise and supply chains will become more vulnerable. Transitioning to a net zero Industry will be difficult, but the industry is under pressure to make a faster shift towards alignment of climate security and sustainable development. For mining companies to remain a going concern in future, action is required: be prepared, share information and work with other relevant stakeholders and governments to find solutions for the transition to a zero-carbon Industry. At EMIL, we will constantly endeavour to be torch bearer for this initiative and create conducive, safe and happy environment for all our stakeholders.

**Mr. Arun Garg**

Chief Financial Officer (CFO) & Head – Renewable Energy





# Message from Chief Human Resources Officer



**A**t Essel Mining & Industries Limited (EMIL), we are committed to a culture that supports a responsible, reliable and resilient business through empowered people who deliver consistent results in all situations. Responsibility starts with living up to our ABG values of Integrity, Commitment, Passion, Speed and Seamlessness. We have been constantly working to integrate sustainability into every aspects of our business.

At EMIL, service to our people and society is central to our value system. To contribute towards bridging the socio-economic gap, we have taken a strategic approach to our Corporate Social Responsibility (CSR) initiatives. We have undertaken 14 villages as core CSR villages to do infrastructural development projects for the benefits of the community.

Our people policies are not only inclusive but holistic in nature, with a key focus to empower employees by creating sustainable livelihood opportunities through skill development and training initiatives. At, EMIL we run multiple skill development interventions across various stakeholder segments to drive economic

stability and nation's development (these are carefully chosen to provide special support to women and economically backward community).

We believe our purpose of existence is through development of our people & communities hence we have always tried to lay significant focus on people processes and follow them both in letter and spirit and helping us drive these initiatives are our set of core values.

I would like to thank all our employees for their contributions and especially to all their family members for their support during this crisis of Covid-19. The last 18 months have been a true test of human values & culture that we have in Aditya Birla Group to support the community and all our stakeholders. I would also like to reassure you all commitment to our stakeholders is an integral part of our sustainable ways of working. Over the course of 70+ years, we have seen and overcome many challenging moments and our values have given us the strength overcome them. I would also like to recognize in particular our frontline employees and factory workers their commitment and discipline at this critical phase to maintain business continuity.

We embrace our social responsibility as one of the leading employers in country to make a significant impact to lives and livelihoods thereby impacting the growth of nation and build a nation opportunities. You will see evidence of this support through the many stories in this report.

## Mr. Vinod Chaturvedi

Chief Human Resources Officer (CHRO) & Head – Noble Ferro Alloys (NFA) Business



## Message from Sustainability Head



**W**ith businesses across the globe facing a constantly evolving market landscape and disruptive challenges, the importance of incorporating sustainable practices in all aspects of business decisions and across the value chain, has been increasing every day. Transitioning to a sustainable business has become central to Essel Mining & Industries Limited's business strategy over the past many years. As we move forward on the path of transformation towards a resilient future, EMIL is developing an approach encompassing several focus areas – responsible mining operations, resource conservation in operations, innovative process and technology development and upliftment of local communities, among others.

We have been working to integrate sustainability into the very core of our strategy. To do so, we place utmost emphasis on understanding and meeting stakeholder expectations. In our process to safeguard the interests of our stakeholders, we regularly engage with them through various platforms and modes. We have used the findings from these interactions to arrive at the material issues and these have helped us shape our business goals. Furthermore, we have redefined our sustainability Standard Operating Procedures wherein we have increased the involvement of our leadership in the decision-making processes to strengthen our sustainability efforts. EMIL adopts a Group Sustainability Framework, which is followed across all Group

companies. Our Group Sustainability Framework is aligned with a bouquet of national and international standards to give us a holistic approach of tackling our key sustainability parameters. Some of the frameworks that we have incorporated at Group level are aligned to the social accounting standards of ISO, OHSAS, UNGC, UNPRI, IFC and OECD to name a few.

Mining and manufacturing are carbon intensive sectors. As a responsible corporate citizen, we aim to minimize the impacts of our resource-intensive operations on the environment at every key step. We therefore have a very high focus on sustainable mining. On the manufacturing front, in collaboration with an Austrian firm, we have developed a niche technology of circular pelletization to cut down our emissions and overall resource footprint since inception. Our environmental approach considers all important parameters such as energy and emissions management, water conservation, waste management and biodiversity. Our efforts towards effluent management have helped our units achieve zero liquid discharge (ZLD).

At EMIL, we echo the Aditya Birla Group's spirit of service to our people and society, which are central to our value system. To contribute towards bridging the socioeconomic gap in our society, we have taken a strategic approach to our Corporate Social Responsibility (CSR) initiatives. Our community development programmes span across five focus areas of education, healthcare, social reform, sustainable livelihoods and infrastructure.

Last year was a very different year and it required us to be more vigilant in terms of our social endeavours because being present never mattered more. We developed a unit-wise contingency plan to ensure that all our employees were safe and the communities where we operate were secure from the rapid spread of Covid-19. Throughout the year we carried out special initiatives to raise awareness and break the pandemic's spreading chain.

Viewing every aspect through a socioeconomic and environmental lens since inception has helped us create future-proofing pathways. With a promise to continue on this journey, we bring to you our first annual Sustainability Report, showcasing our progress and improvements on this front. We look forward to your feedback and suggestions.

**Mr. Pavan Kumar Kakani**

Head- Sustainability, Strategy and Business Development



# Messages from Our Business Heads



At present India is the fourth largest iron ore producer in the world and EMIL is one of the key players in the Indian market. Being in an industry that plays an important role in driving India's growth, our responsibility becomes multi-fold. Integrating non-financial parameters and leading by example

in the sphere of responsible mining is one of our key focus areas. Our roadmap to success has been our fully mechanized state-of-the-art technology and equipment coupled with a strong governance led by the idea of doing good. Our agility in operations enables the division to maximize the utilization of resources, as well as to cater to the needs of diverse customers.

Our division is fully equipped and accredited with Integrated Management System (IMS), ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System) and OHSAS 18001 (Occupational Health and Safety Assessment Series). We have been awarded a 5-star rating by the Ministry of Mines in the recent past, which testifies our commitment to undertake

mining in an environmentally sustainable manner. As we look forward to the start of a new decade, we look at creating more holistic approaches that will enable us to create long-term value for our customers.

With the recent acquisition of M/s Prominerals Private Limited (PMPL), a 1.0 MTPA iron ore beneficiation and a 1.0 MTPA pelletization plant, EMIL diversified into the business of manufacturing pellets, thereby establishing synergy with its iron ore operations. The PMPL plant has been recently commissioned using remote services from the technology suppliers M/s Primetals Technologies Austria. We are the first in the world to install the cost-effective circular pellet technology developed by Primetals Technologies Austria. The PMPL unit has been developed as a unit of the future – a perfect harmony between responsible consumption and production. These business lines further strengthen our commitment to the value-added products and services that we are known for. Through these lines of business, we remain committed to a disciplined process of risk assessment and capital allocation, thereby maximizing value for stakeholders.

## Mr. Prasanna Panda

Head- Iron Ore & Pelletization



India has a rich history of coal mining for more than 200 years. Presently it is the second largest producer of coal in the world. EMIL's entry into coal mining has been at a time when sustainability of environment in mining has become of great importance. As a responsible corporate, although we are a

mine developer-cum-operator (MDO), since inception it has been our strategy to drive inclusive growth in an environmentally responsible manner.

Our BCML and RCML mines that are operating have state-of-the-art facility to incorporate all environmental nuances to ensure that we are performing over and above

compliance. Land reclamation by backfilling the void after coal extraction in BCML and growing paddy over it is one of the examples of the approach adopted and has been appreciated at all forums. We are developing a corporate citizenship approach that will enable us to aid various communities in using their land. Since its inception, the recently acquired Madanpur (south) coal project has been designed to incorporate all the needs of responsible mining.

At present, the mining industry is going through a paradigm shift where integrated management is becoming the essence of necessity. We have ingrained the values of sustainability in our business and all our decisions are now made keeping in mind the externalities that could affect a hard to abate sector like mining in the coming years. Our main focus remains unchanged — Growing responsibly.

## Mr. Rajinder Malhotra

Head – MDO Coal Business



**O**ur entry into the space of commercial coal mining is recent when compared to our rich legacy of coal mining on the mine developer-cum-operator (MDO) route. With the recent acquisition of the Bandha and Radhikapur Coal Mines, we have become the largest private player in this new mining space. This is a matter of great pride, but at the same time we

are faced with the challenge of staying ahead as the leader in commercial coal mining and acting responsibly towards the environment, including the society we will be operating with. One of the prime issues that plagues the coal mining industry is the management of huge amount of waste being generated and perfect closure of the mines after exploitation of the coal deposits.

We are integrating the aspects of digital mining in the new mines acquired, which will ensure that most of the high-risk activities are automated, warranting workforce safety as well as making all the unit mining operations cost effective. We are committed to a world class reclamation of the mine and are incorporating all requisite plans in our actions from the very beginning.

**Mr. Satya Prakash**, Head-Commercial Coal Business



**A**s part of its growth plan, EMIL's strategy is to invest in its core business and further diversify into adjacencies. Acquisition of the Bunder Diamond Block is the perfect example of our strategies' implementation. The development of the Bunder Diamond Block

will take "India to the World". Once developed the project will be in the league of the top 15 diamond producing mines in the world. EMIL, backed by its longstanding experience, proposes to deploy scientific and sustainable mining practices in the development and operation of the Bunder Diamond Block. The project will adopt sustainable mining practices by deploying best of the technologies in the diamond mining value chain preposition (mining, mineral processing, diamond recovery and infrastructure) with a total investment of INR 2500 crore. Deep diving into the socio-economic and environmental risk that may occur in the diamond mining, we have started developing roadmaps to future-proof our business thereby ensuring business resilience.

**Mr. Rakesh Paliwal**, Head - Bunder Diamond Project



**E**stablished in the year 1980, Noble Ferro Alloys Division is the largest producer of superior quality Noble Ferro Alloys with over 34% market share in India. Our major products are Ferro Vanadium, Ferro Molybdenum and Ferro Titanium. Other Products include Ferro Alloy Powders and Unfused V2O5

Powders. Our Products are used in Steel, Chemical, Foundry and Automobile Applications. Our focus has always been to ensure the environmental safety as well as the safety of the workforce which we operate. We are certified by ISO-9001:2015 (Quality Management System), ISO-14001:2015 (Environment Management System) and OHSAS-18001:2007 (Occupational Health & Safety Management System). Our business works on the principle of creating value from wastes. We strongly focus on R&D to create superior quality products thereby creating a roadmap for future proofing our business.

**Mr. Vinod Chaturvedi**, Chief Human Resources Officer (CHRO) & Head - Noble Ferro Alloys (NFA) Business



**T**he renewable energy business represents EMIL's zeal to be environment-friendly and a responsible corporate citizen, promoting sustainable development. EMIL believes that effective and efficient utilization of natural resources, coupled with responsible environmental

consideration, is vital for business sustainability, which also helps in achieving the objective of climate change mitigation through reduction in greenhouse gas (GHG) emissions. The investment in 75 MW Wind Power Project developed in Dhule and Nandurbar district of Maharashtra was the beginning of EMIL's foray into Renewable Energy. It later got recognised as Clean Development Mechanism (CDM) project under UNFCCC. EMIL further continued its investment in green energy by commissioning 80.80 MW of solar plants in the three states of Gujarat, Rajasthan and Telangana. Thus, EMIL has been successful in materializing its concerted efforts in energy conservation by adopting renewable resources of energy to reduce carbon footprint

**Mr. Arun Garg**, Chief Financial Officer (CFO) & Head - Renewable Energy



# About EMIL



## About this Report

Welcome to our first sustainability report. The report provides a consistent, balanced and accurate representation of the key material issues, actions undertaken and achievements over the reporting period of the financial year from April 2020 to March 2021. With the help of this report, Essel Mining & Industries Limited wishes to communicate its sustainability performance and initiatives and their impacts on stakeholders. The illustration below showcases the report's alignment with Global Reporting Index (GRI) Standards.



### Entities included in the report boundary

- » The contents of the report cover Essel Mining & Industries Limited (the 'parent company', hereafter referred to as 'EMIL' or the 'Company') and its subsidiary companies Bhubaneshwari Coal Mining Limited (74 % holding as of 31 March 2021), Rajmahal Coal Mining Limited (85% holding as of 31 March 2021), Pro Minerals Private Limited (100% holding as of 31 March 2021) and EMIL Mines and Minerals Resources Limited (100% holding as of 31 March 2021)
- » The report covers the head office, iron ore business (hereafter referred to as 'iron ore'), Madanpur (south) coal block (hereafter referred to as 'Madanpur'), Noble Ferro Alloys business (hereafter referred to as 'NFA'), Bunder Diamond Business (hereafter referred to as 'Bunder Diamond') and renewable energy business (hereafter referred to as 'Wind and Solar'), businesses of EMIL subsidiaries, that include Pro Minerals Private Limited (hereafter referred to as 'PMPL'), Bhubaneshwari Coal Mining Limited (hereafter referred to as 'BCML'), Rajmahal Coal Mining Limited (hereafter referred to as 'RCML'), , EMIL Mines and Mineral Resources Limited (hereafter referred to as 'EMMRL'). The reporting and boundary of this report pertains to EMIL and our subsidiaries' domestic operations.

### Disclosures on Management Approach (DMA)

Under the GRI Standards guidelines, we have provided DMA for every material aspect identified during our Stakeholder Engagement and Materiality Analysis process.

### Reporting Period and Reporting cycle

We have published our first sustainability report

- » Our report encompasses our activities from 1 April 2020 to 31 March 2021



## Contact point for questions regarding the report

**Mr. Pavan Kumar Kakani**  
 Head- Sustainability, Strategy and Business Development  
 Email- pavan.kakani@adityabirla.com

## Claims of reporting in accordance with the GRI Standards

» The report has been prepared in accordance with the GRI Standards: core option.

# Performance Overview



1065

Total number of employees



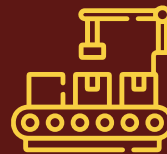
18

Total number of operations



175293

Economic Value Retained (in INR Lacs)



46845828

Production during FY:2020-21 (in MT)



155 MWh

Total renewable energy generation capacity



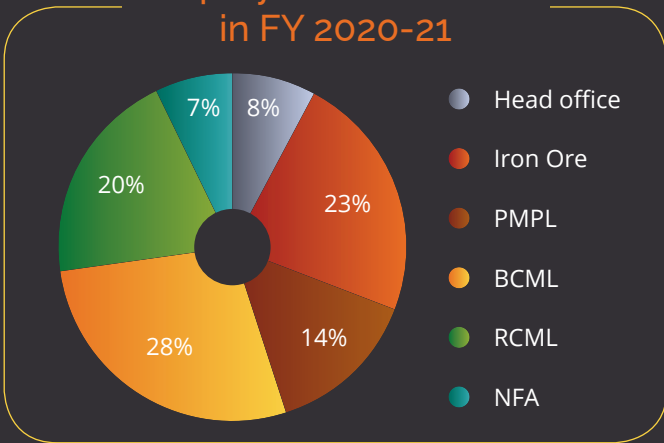
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Loss Time Injury Frequency Rate

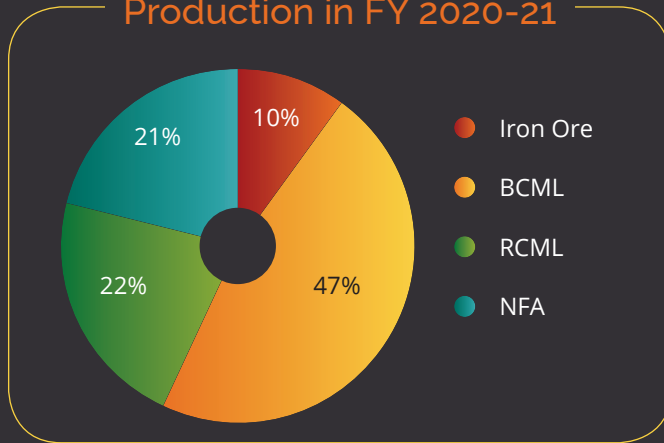


# Key Highlights

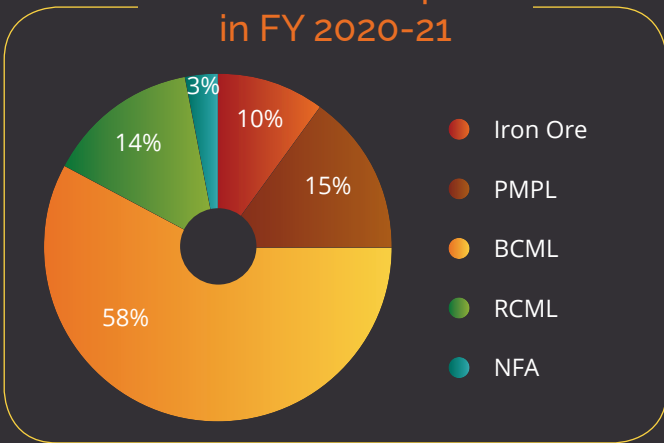
### Employee Distribution in FY 2020-21



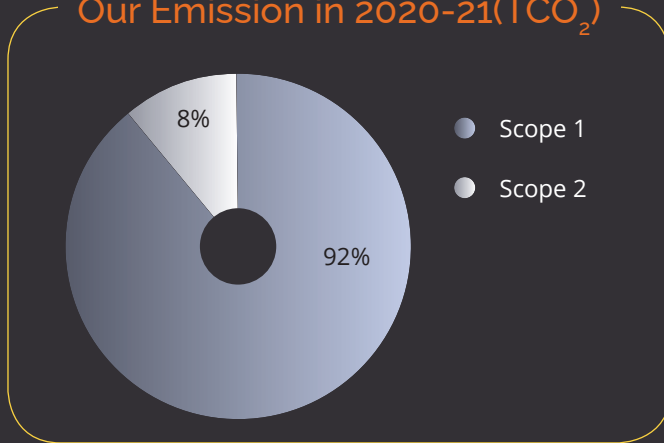
### Production in FY 2020-21



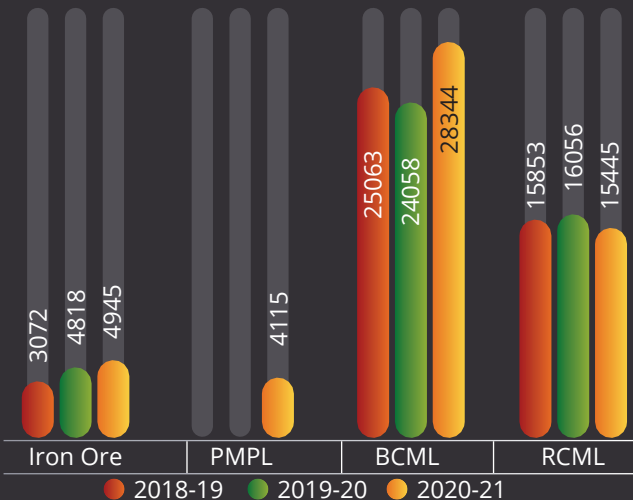
### Water Consumption in FY 2020-21



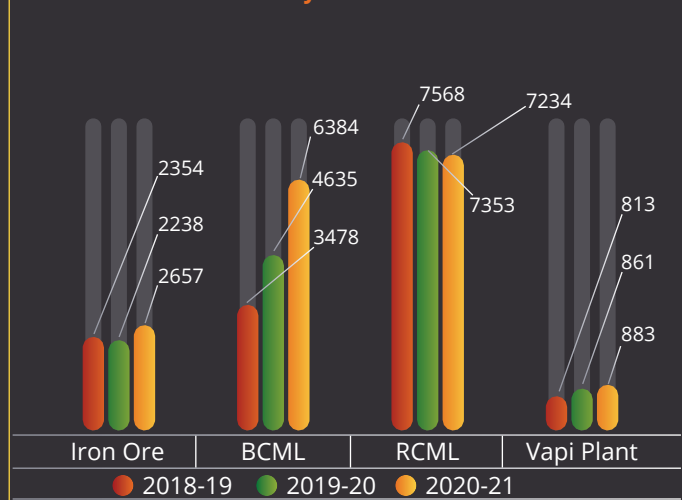
### Our Emission in 2020-21(TCO<sub>2</sub>)



### HSD Consumption Trend (kL)

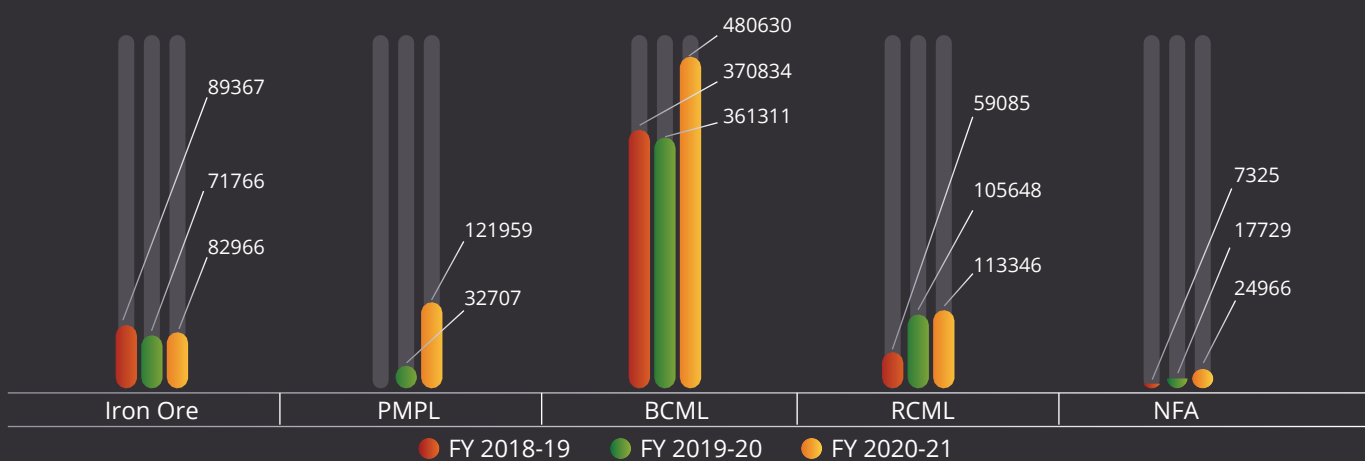


### Grid Electricity Consumed (MWh)

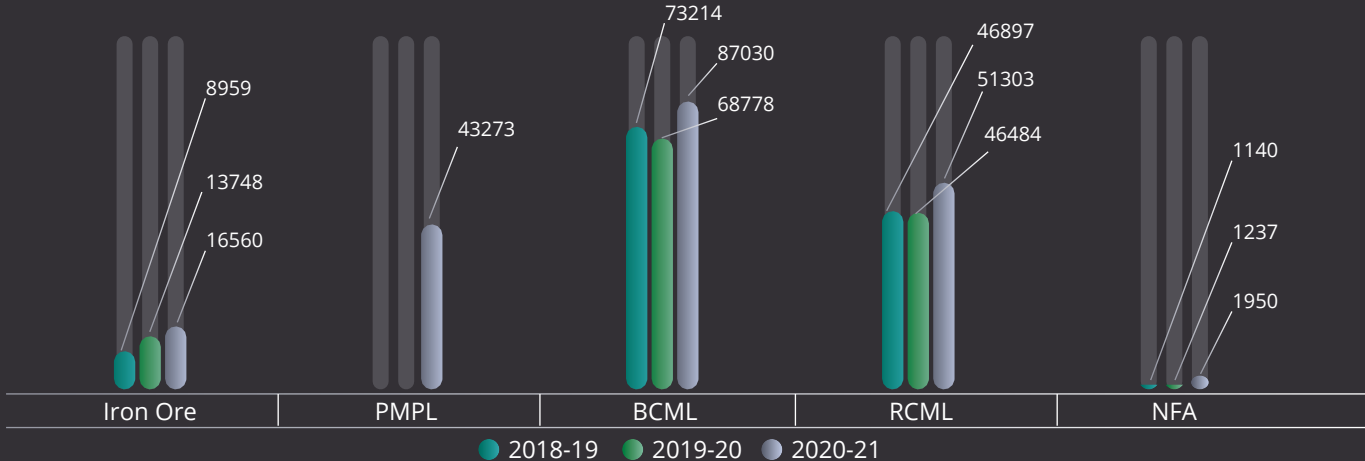




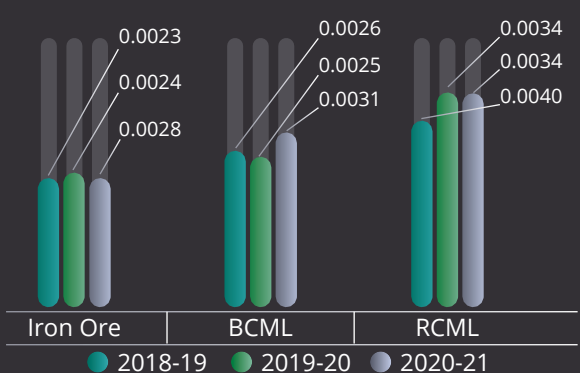
### Total Water Withdrawal (m<sup>3</sup>)



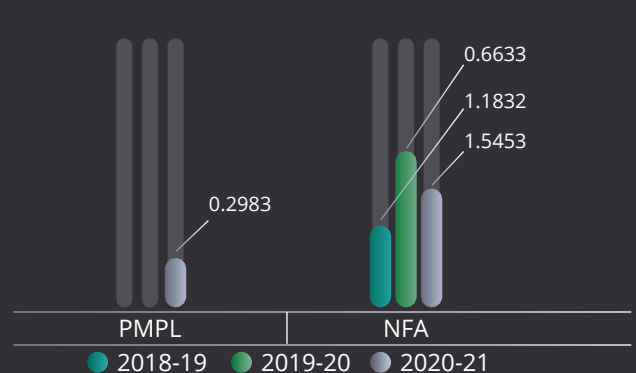
### GHG Emission Trends (TCO<sub>2</sub>)



### GHG Emission Intensity in Mining (TCO<sub>2</sub>/MT)

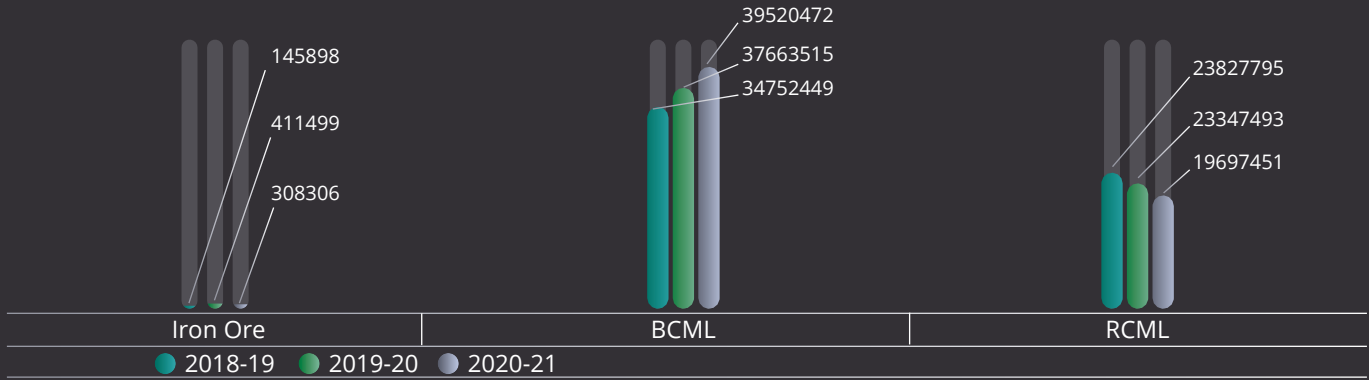


### GHG Emission Intensity in Manufacturing (TCO<sub>2</sub>/MT)

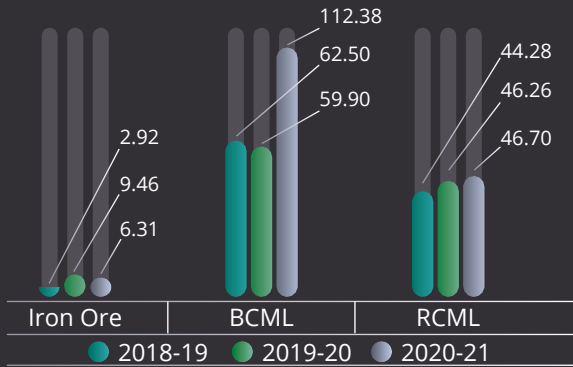




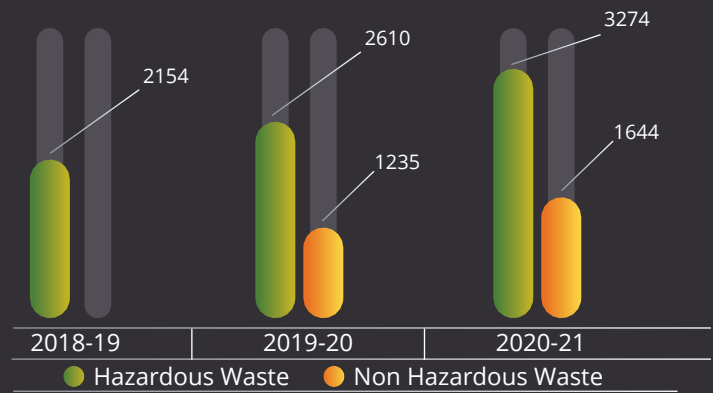
### Overburden backfilled Over the Year (MT)



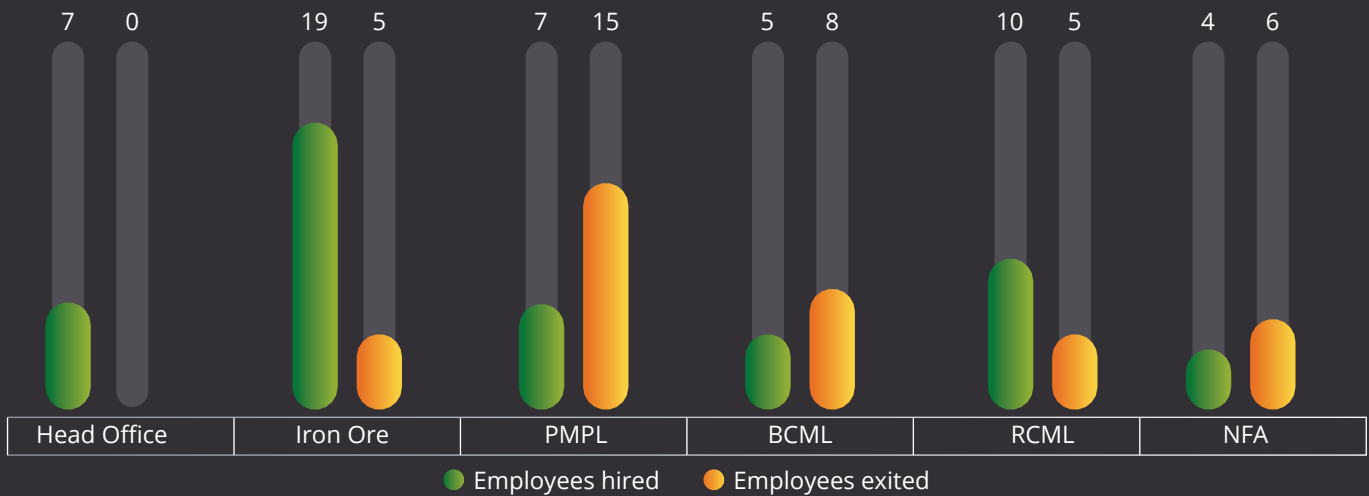
### Hazardous Waste Generated in Mining (MT)



### Waste Generation in NFA (MT)



### Trend of Permanent Employee Hired and Exit in FY 2020-21





# About EMIL (Who we are)

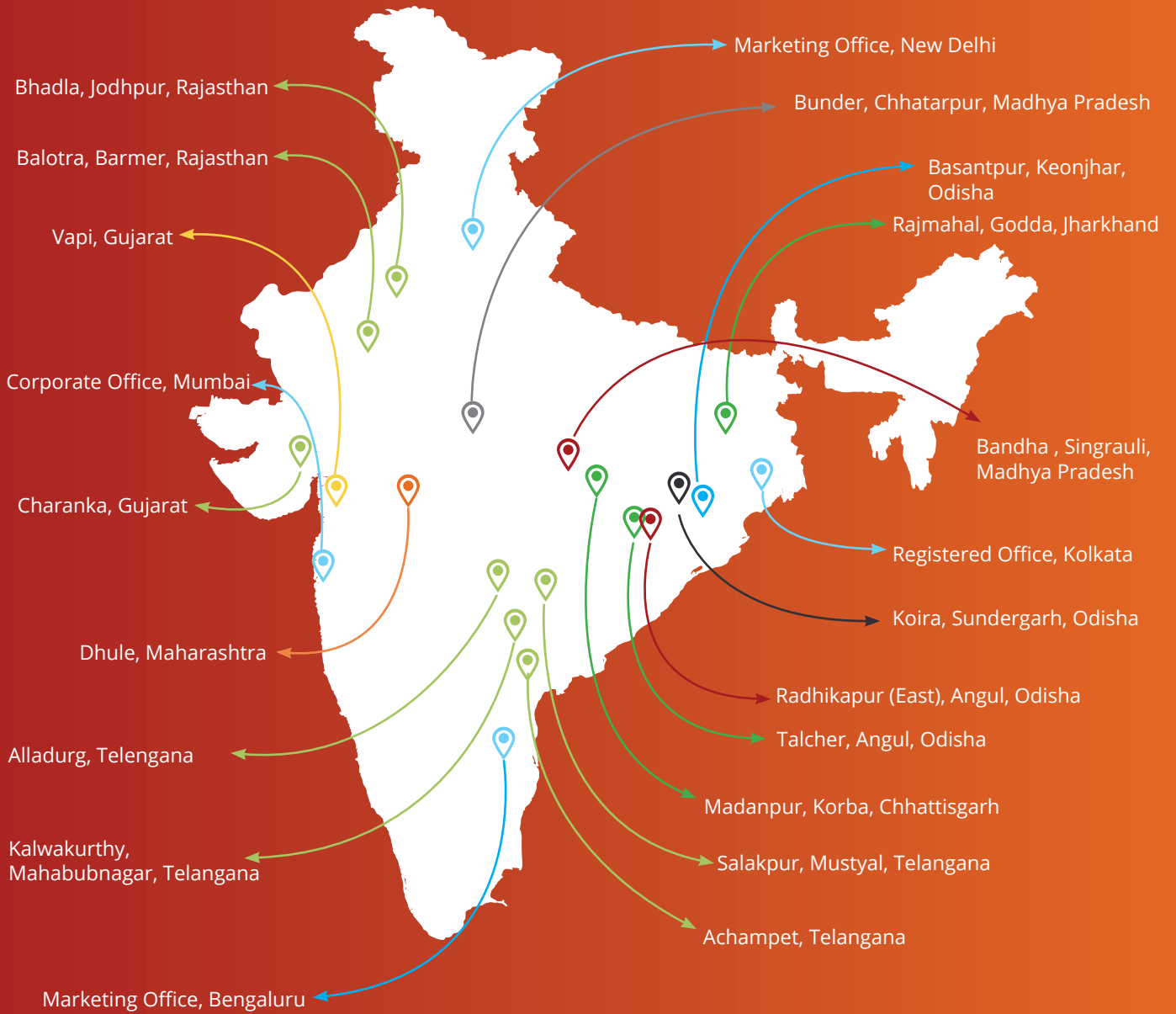
EMIL is a part of the US \$48.30 billion Aditya Birla Group of companies. EMIL was incorporated in the year 1950. We are a diversified natural resource company. EMIL is a mining & manufacturing company. We are mining iron ore & coal. We have also diversified into contract coal mining through the mine developer-and-operator (MDO) model. We have recently made our footprints in the diamond mining space through the acquisition of Bunder Diamond Block. We are also expanding in the manufacturing space through production of value-added products such as iron pellets and Noble Ferro Alloys (NFA) and have operating renewable energy projects in wind and solar power sectors in India. EMIL has two corporate offices located in Mumbai and Bhubaneshwar and a registered office in Kolkata.

The Iron ore and NFA business divisions of EMIL have been accredited with ISO certification for Quality Management systems, Environment Management Systems and Safety Management System with ISO 9001, ISO 14001, ISO 18001, respectively. All our business divisions strictly adhere to the principles of responsible mining and manufacturing. All our operational units have incorporated a robust environment management system and ESG compliance framework. Any risks arising from our operations are constantly monitored through several softwares such as ENABLON, etc. We are one of the leading natural resource companies engaged in constant evaluation of organic and inorganic growth opportunities across the globe.





# EMIL Offices and Operations



Diamond Mines	Wind Power	Offices
Iron Ore Mines	Solar Projects	Pro Mineral
Noble Ferro Alloys	Contract Coal Mines	Commercial Coal Mines



# Mining: Iron Ore Business

Our iron ore mining division has been engaged in extracting iron ore in Odisha for the last five decades. At present, we have a 6 MTPA operational capacity iron ore mine in Odisha. EMIL focusses on exploring and expanding opportunities in mineral mining and manufacturing of value-added products from iron ore. Our iron ore mining technological expertise is one of our key strengths which ensures long-term success. We are using state-of-the-art technology and modern equipment to ensure high productivity and cost reduction. In order to improve the quality of our products during monsoon, we also use Flip Flow technology to handle ores with high moisture content. Our infrastructure development with extensive investments and connectivity to ports, rail links and rolling stock adds additional value to our success.

## Value Chain



### Location

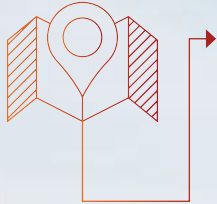
- » Unit name- Koira Mines
- » Location- Sundargarh
- » State- Odisha



# Mining: Coal Mining Business

## Contract Coal

EMIL has been in the iron ore mining business since 1950. In alignment with our experience in mining, we decided to diversify our operations into coal. We entered the coal market through a contract awarded as an MDO. In the MDO model, the ownership lies with the mine owner. A mining fee per tonne of coal extracted is fixed beforehand and is mentioned in the agreement between the mine owner and the MDO partner. Our company became the first MDO in India in 2010 when we were awarded the Bhubaneshwari Coal Mines contract under Mahanadi Coalfields Limited (MCL), a subsidiary of Coal India Limited. In the year 2013, our second MDO, at Rajmahal Coal Mines, became operational. The mines were under Eastern Coalfields Limited (ECL), which is a subsidiary of Coal India Limited. Recently, in 2019, we successfully won the bidding of Madanpur (south) coal block for contract mining under APMDCL (a government of Andhra Pradesh state undertaking).



### Location

- » Unit name - BCML
- » Location - Angul
- » State - Odisha
- » Unit name - RCML
- » Location - Godda
- » State - Jharkhand
- » Unit name - Madanpur South Mine
- » Location - Korba
- » State - Chattisgarh



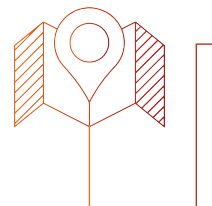


## Value Chain



## Commercial Coal

The landscape of mining industry is changing with new policies and reforms by the GOI. In 2014, coal linkages were introduced to provide impetus to the coal sector. In an effort to make the sector self-reliant and sustainable, the government had taken a major step to completely open the coal mining sector to private companies. Under this reform, GOI auctioned 19 coal blocks, and EMIL's earlier experience and already existing footprint and resources in the mining business made us one of the preferred choices in the auction. We participated in the auction process through our subsidiary EMMRL and we triumphed as a successful bidder in two coal blocks. The two blocks, namely Radhikapur East and Bandha with a geological reserve of 183 million tonnes and 560 million tonnes, respectively, are expected to start operations from Q4 FY 23 and Q2 FY 25, respectively.



## Location

- » Unit name - Radhikapur (East)
  - » Location - Angul
  - » State - Odisha
- 
- » Unit name - Bandha
  - » Location - Singrauli
  - » State - Madhya Pradesh

## Value Chain





# Mining: Diamond Business

In line with our diversification plans in mining business, we participated and successfully won the bid to mine rough diamonds from Bunder Diamond Block. The project is a green field mining project covering an area of 364 Ha with an estimated resource of around 53.70 million tonnes of Kimberlite ore containing about 34 million carats of rough diamonds. At present, we have developed the mine plan and are in the process of seeking various environmental and forest clearances in order to make the project operational in the near future.

## Value Chain



## Location

- » Unit name- Bunder Diamond Mine
- » Location- Chattrapur
- » State- Madhya Pradesh







# Processing: Noble Ferro Alloys Business

EMIL takes pride in being the largest producer of high quality NFA in the country. The NFA business was established in 1980, and the capacity of the same is 9000 MTPA. We focus on creating the best products through extensive research and development, fulfilling the current and future demands of our new and existing customers.

## Value Chain



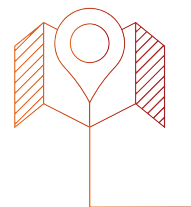
### Location

- » Unit name - NFA
- » Location - Valsad
- » State - Gujarat



# Processing: Pro Minerals Business

Pro Mineral Private Limited (PMPL) was acquired by EMIL through the corporate insolvency resolution process in the year 2019. It has a 1 MTPA iron ore beneficiation plant and a 1 MTPA iron ore pelletization plant. The beneficiation plant uses Allmineral GmbH technology, which not only helps in re-using and recycling process water to achieve zero effluent discharge but also helps in efficiently utilizing the low-grade fines. The pellet plant utilizes the Primetals Technologies' Circular Pelletizing Technology (CPT). On acquisition of PMPL, EMIL collaborated with Primetals to incorporate CPT in its PMPL plant in Keonjhar. Our PMPL plant is the first pelletization in world to incorporate CPT, the technology is completely automated and optimizes resource footprint such as water, fuel, electricity, waste and reduces fixed cost and operational expenses thereby enhancing profitability.



## Location

- » Unit name- PMPL
- » Location- Keonjhar
- » State- Odisha

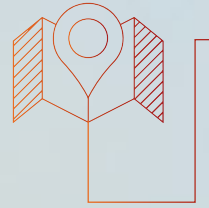
## Value Chain





# Renewable Energy: Wind and Solar Business

EMIL was the first Aditya Birla Group company to pioneer into renewable energy with an investment in 75 MW of wind power in FY 2005-06. Our motive was to offset our carbon footprint and to harness natural resources to produce green energy. Later, we ventured into solar power with 80.78 MW capacity. At present, we have a combined portfolio of over 155 MW of clean and green energy

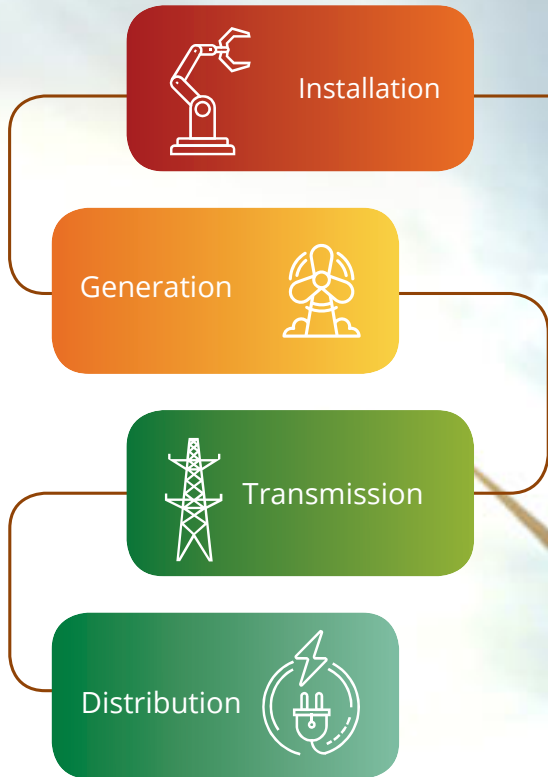


## Location

- » Unit name- Wind Business
- » Location- Dhule and Nandubar
- » State- Maharashtra

- 
- » Unit Name-Solar Business
  - » Location- Kalwakurty, Achampet, Alladurg, Mustyal, Balotra, Bhadla, Charanka
  - » States- Gujarat, Rajasthan and Telangana

## Value Chain





# Our Products

Calibrated lump iron ore



Iron ore fines



Coal



Vanadium Pentoxide (V2O5) powder



Ferro Molybdenum (powder)



Ferro Titanium (lumps and powder)



Ferro Vanadium (powder)



Ferro Molybdenum (lumps)



Ferro Vanadium (lumps)



Iron Pellets



Diamond





# Sustainability Vision

EMIL endeavours to become a diversified global mineral resource company through sustainable business practices, aimed at value creation for its stakeholders, conservation of mineral resources, protection of the environment, development and, enhancement of health, safety and well-being of its people and contributing to the society at large.



## Vision Statement

To be a value adding global natural resource company cherished by our customers and the community in which we work.



## Mission Statement

To consistently be the best in creating value for our shareholders, customers, employees and community.



## Values

Integrity, Commitment, Passion, Seamlessness, Speed

# Values



### Integrity

Acting and taking decisions in a manner that is fair and honest. Following the highest standards of professionalism and being recognised for doing so. Integrity for us means not only financial and intellectual integrity but also encompasses all other forms as are generally understood.



### Commitment

On the foundation of integrity, doing all that is needed to deliver value to all stakeholders. In the process, being accountable for our own actions and decisions, those of our team and those in those parts of the organization for which we are responsible.



### Passion

An energetic, intuitive zeal that arises from emotional engagement with the organization that makes work joyful and inspires each one to give his or her best. A voluntary, spontaneous and relentless pursuit of goals and objectives with the highest level of energy and enthusiasm.



### Seamlessness

Thinking and working together across functional groups, hierarchies, businesses and geographies. Leveraging diverse competencies and perspectives to garner the benefits of synergy while promoting organizational unity through sharing and collaborative efforts.



### Speed

Responding to internal and external customers with a sense of urgency. Continuously striving to finish before deadlines and choosing the best rhythm to optimise organizational efficiencies.



# Our Group Sustainable Business Framework

The current decade is being talked about as the decade of action on global commitments on climate change, Sustainable Development Goals (SDGs) and others. It is expected to be extremely challenging for organizations since growth is shifting, innovation is relentless, disruption is accelerating, expectations are high, and social tensions are rising. Organizations are faced with an increasing number and mix of megatrends, such as climate change, rapid technological progress, demographic changes, rise of the platform economy. Combined with disruptors such as the recent Coronavirus epidemic, these are triggering potentially exponential changes in the way organizations are going to function.

One such significant momentum has been building over the past year towards the shift to stakeholder capitalism. The pandemic has demonstrated the importance of delivering financial results that are aligned to performance on ESG (Environmental, Social and Governance) aspects. We are already witnessing diverse stakeholders such as regulators, oversight authorities, policy makers, investors and lenders becoming more vocal about the need for greater adoption of ESG. ESG is the new lens through which companies will be increasingly evaluated – both for their commitment and actioning on them.

At this juncture, the Aditya Birla Group of businesses are seven years into the journey to become the leading Indian conglomerate for sustainable business practices across all our operations, as envisioned by our Chairman, Mr Kumar Mangalam Birla. Since then, as a Group we have made strides to equip our businesses with the right tools, provide access to the right information and to put the right systems and processes in place with comprehensive guidance on how to achieve the vision:

- » We started with defining the sustainable business model for ABG businesses through a funnel-based approach sitting on the three pillars of responsible stewardship, stakeholder engagement and future-proofing. This model is supported by the ABG Sustainable Business Framework.
- » The ABG Sustainable Business Framework has now gained full maturity through peer reviewing and

third-party certification to 17 different international standards. Today, it comprises of 18 single pages of public policies and their associated 46 Technical and 18 Management Standards, which are setting expectations and guiding management system improvements across our Group companies. Furthermore, 70 Guidance Notes and over 850 e-learning Training Courses have been made available to support the practical implementation of requirements across the Group.

- » Implementation assurance is powered by an IT enabled evidence-based approach – ensuring rigour and consistency to our business management systems. All businesses are now self-assessing and reporting their progress. Colleagues worldwide provide on-line, details of the systems that they have in place and the resulting performance through photographs, documents and registers uploaded as part of Self-Assessment Questionnaires auditable in ENABLON.
- » Governing this process is our Assurance Principles that guide the self-assessment and verification process.

Having covered this ground and in the evolving business landscape, we have now embarked on ABG Sustainability Journey 2.0 to focus on what the megatrends 2020-2030 demand from the private sector for the current 'decade of action' in mainstreaming of ESG in executive and operational decision-making.

Our "Ability to Sustain" approach has also undergone fine tuning for better navigation in this ever-shrinking operating funnel via a 4-D (dimensional) approach. ABG businesses are building higher resilience in their business strategies and operations to ensure that their aggregate impact remains within the planet's safe operating limits, taking into account their

- 1) business sectoral uniqueness;
- 2) geographies of operation; and
- 3) stakeholder expectations across their value chains in keeping with short- and long-term time horizons.

The model 2.0 thus lays out four steps to be followed by ABG businesses. The steps begin with identifying

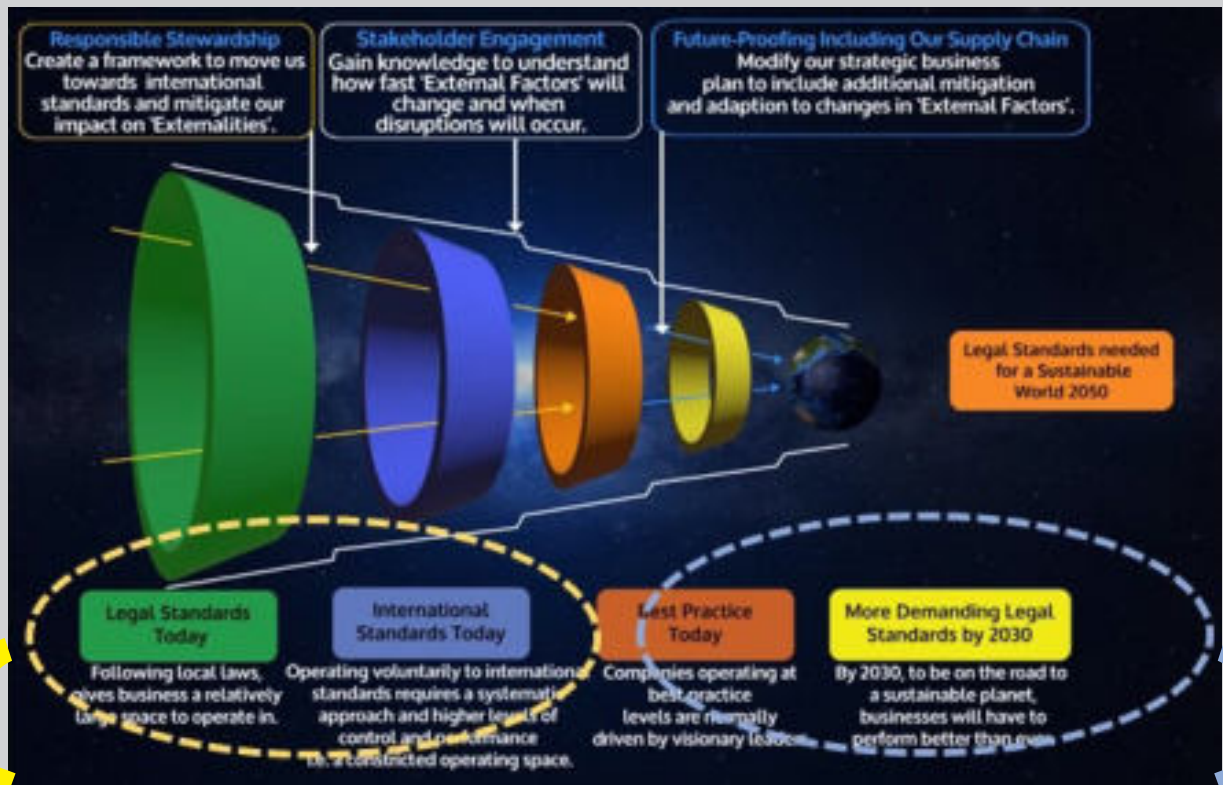


and understanding value chain aspects across geographies for a sector, followed by identifying and prioritizing material aspects across time horizons and stakeholder expectations and, finally, developing sustainable business strategies with time-based targets and annual action plans which are measurable and can be monitored to future-proof our business strategies, products, operations and supply chains to remain sustainable.

The onus is on every one of us, starting from our leadership, to take on the understanding of what it means to be a sustainable business leader in their own sectors and industries and to plan out a roadmap for achieving it now. The planet will demand that it is so, and the markets will have no choice but to comply. At ABG, we have a legacy of success. It is our leadership's imagination that will realise our vision of becoming a sustainable business conglomerate, and this will shape their legacy. Progress is being made but much remains to be done.

### ABG Sustainable Business Model - Covers ESG in parts, now using 4Ds to navigate

- Dimension 1: Industry sector of operation
- Dimension 2: Geography of operation
- Dimension 3: Value chain approach to include key stakeholders
- Dimension 4: Time horizon



#### Operational aspects from:

- » legal compliance (now/future),
- » best practices
- » select stakeholder requirements
- » immediate/short-term
- » Linked to “responsible stewardship”

#### Strategic aspects from:

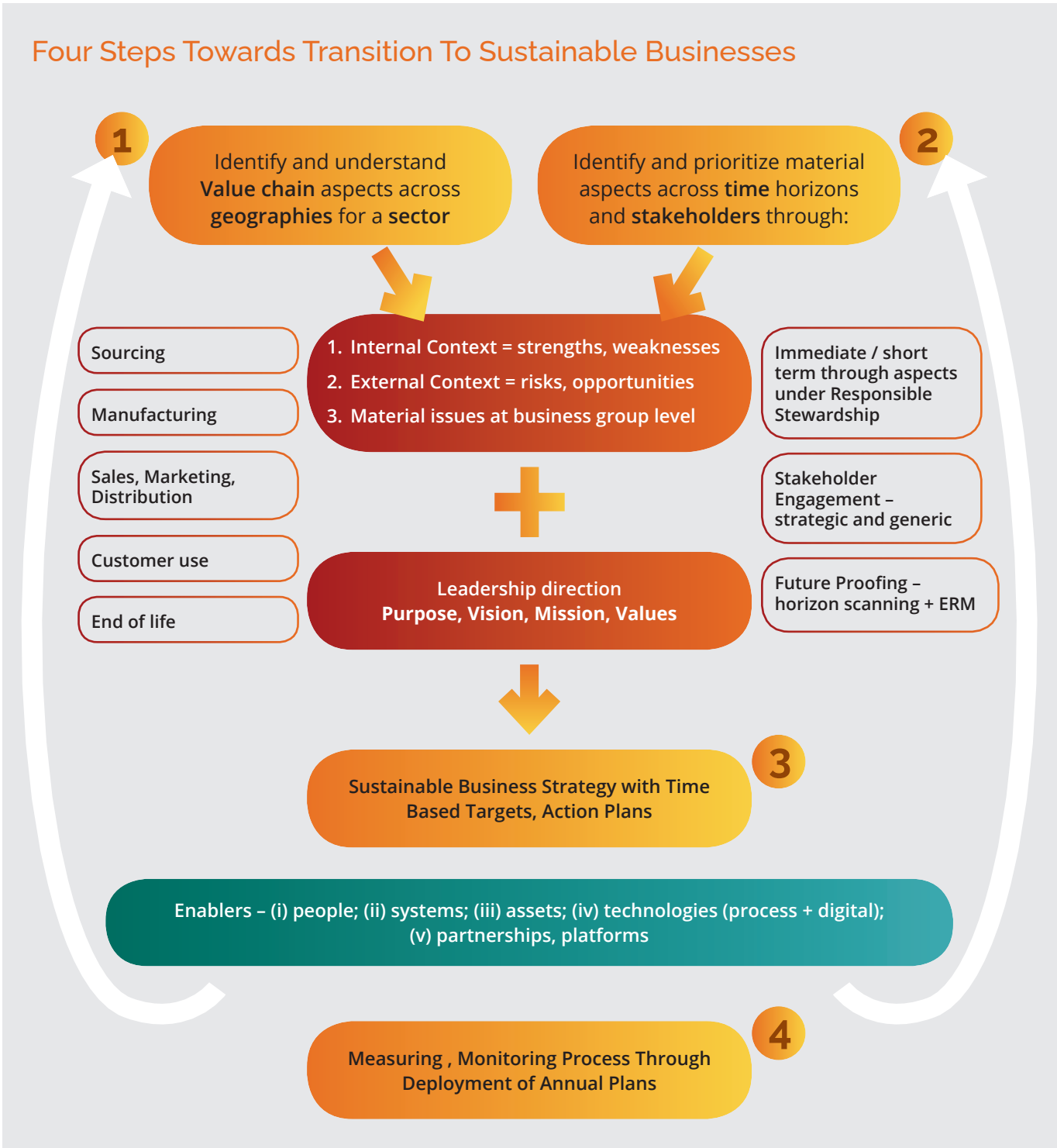
- » Strategic stakeholder engagement
- » Future proofing exercises - horizon scanning, risk assessments
- » Includes ENABLERS to implementation - Governance, People, technology





Responsible Stewardship	Create a framework to move us towards international standards and mitigate our impact on 'externalities'
Stakeholder Engagement	Gain knowledge to understand how and when 'external factors' will change and when disruptions to our businesses may occur
Future Proofing	Including adaptation to external factors in our businesses' strategic plans

## Four Steps Towards Transition To Sustainable Businesses





## Regulatory Compliance Management at EMIL

Compliance means conforming to a rule, such as a specification, policy, standard or law and regulatory compliance describes the goal that organizations aspire to achieve in their efforts to ensure that they are aware of and take steps to comply with relevant laws, policies, and regulations.

Due to the increasing number of regulations and need for operational transparency, organizations are increasingly adopting the use of consolidated and harmonized sets of compliance controls. This approach is used to ensure that all necessary governance requirements can be met without unnecessary duplication of effort and activity from resources.

In line with the growing trend, EMIL has adopted the Regulatory Compliance Management (RCM) module developed by ENABLON. The ENABLON RCM module enables EMIL to understand what regulations, policies and obligations of local, national and global standards are applicable to us, and enables us to manage changes to regulations.



The increasing complexity and rate of regulatory change around the world make it difficult to ensure compliance. Regulatory and permitting requirements also vary between different types of operations and equipment, and from country to country. This makes the process of determining applicability complex and prone to human error. The ENABLON RCM software application eliminates compliance deviations and helps compliance managers anticipate and manage regulatory change.

This module enables EMIL to manage its regulatory environment in various ways like:

- » **Centralize and consolidate**  
Bring all regulations, permits and company policies together in a single location. Through centralization, the module provides a consolidated view of all regulatory, permitting and policy requirements, making management more efficient.
- » **Provide clear visibility**  
Give the management a clear view of all regulatory performance and requirements through a range of dynamic features. These include reporting dashboards, standardized compliance report templates, progress reports, compliance alerts, and a compliance-watch heat map.
- » **Eliminate non-compliance risks**  
Improve the way EMIL manages regulatory changes. Enhance compliance programs and reduce the time it takes for sites and facilities to ensure compliance.

At EMIL, the RCM is driven by a three-layered governance structure wherein each regulatory requirement is mapped to a TASK OWNER (first layer), who is primarily responsible to comply to the requirements and update the status online in ENABLON. The task owners are guided by their respective DOMAIN MANAGERS (second layer), who oversee the compliance status. The overall RCM is accounted for by the SITE COMPLIANCE MANAGER (third layer), who is responsible for any modifications in the process and for updating the status to the management. The entire process is facilitated by the Sustainability single points of contact at unit and corporate levels. The next chapter showcases our ESG priorities that we have mapped leveraging ABG sustainability framework, stakeholder consultation, international guidelines for disclosure.

# ESG Priorities





# ESG Priorities

Materiality assessment is the process of identifying and prioritizing Environmental, Social and Governance (ESG) issues that are most significant to a company and its stakeholders. During FY 2020-21, EMIL has conducted materiality assessment to re-evaluate the material topics through stakeholder consultation and management discussion. It was conducted in the following four stages:

## Identification and selection of material topics:

- » Developed a list of relevant ESG topics from internal and external sources, including criteria from our business strategy, relevant ESG reporting guidance, such as the Global Reporting Initiative (GRI) Standards and Sustainability Accounting Standards Board (SASB)
- » Benchmarked ESG topics and trends across the company's industry peers

## Identification and engagement with EMIL's key stakeholders:

- » EMIL's key leadership, in collaboration with ESG subject matter expert, identified key stakeholders who are impacted by EMIL's operations. The stakeholders include but are not limited to employees, investors, suppliers, customers, communities, NGOs and regulatory bodies
- » For materiality assessment, the company carried out an exercise to prioritize material topics in consultation with various identified stakeholder groups. The consultations included various modes such as but not limited to one-on-one interviews with representatives of local communities, focus group discussions with employee union representatives, formal and informal feedbacks from suppliers, vendors and customers, need based discussions with regulatory bodies.





- » Stakeholders assigned 'importance rating' as high, medium or low to various topics based on the concerns raised by them during year-round interaction sessions with the respective departments.

## Discussion of the findings of materiality assessment with the leadership team:

- » In order to align the ESG topics most material to EMIL, the leadership analysed the impact of the shortlisted material topics of the company, taking into consideration the sustainability objectives, business strategies, company policies and global market trends.

## Formation of materiality matrix and list of material topics

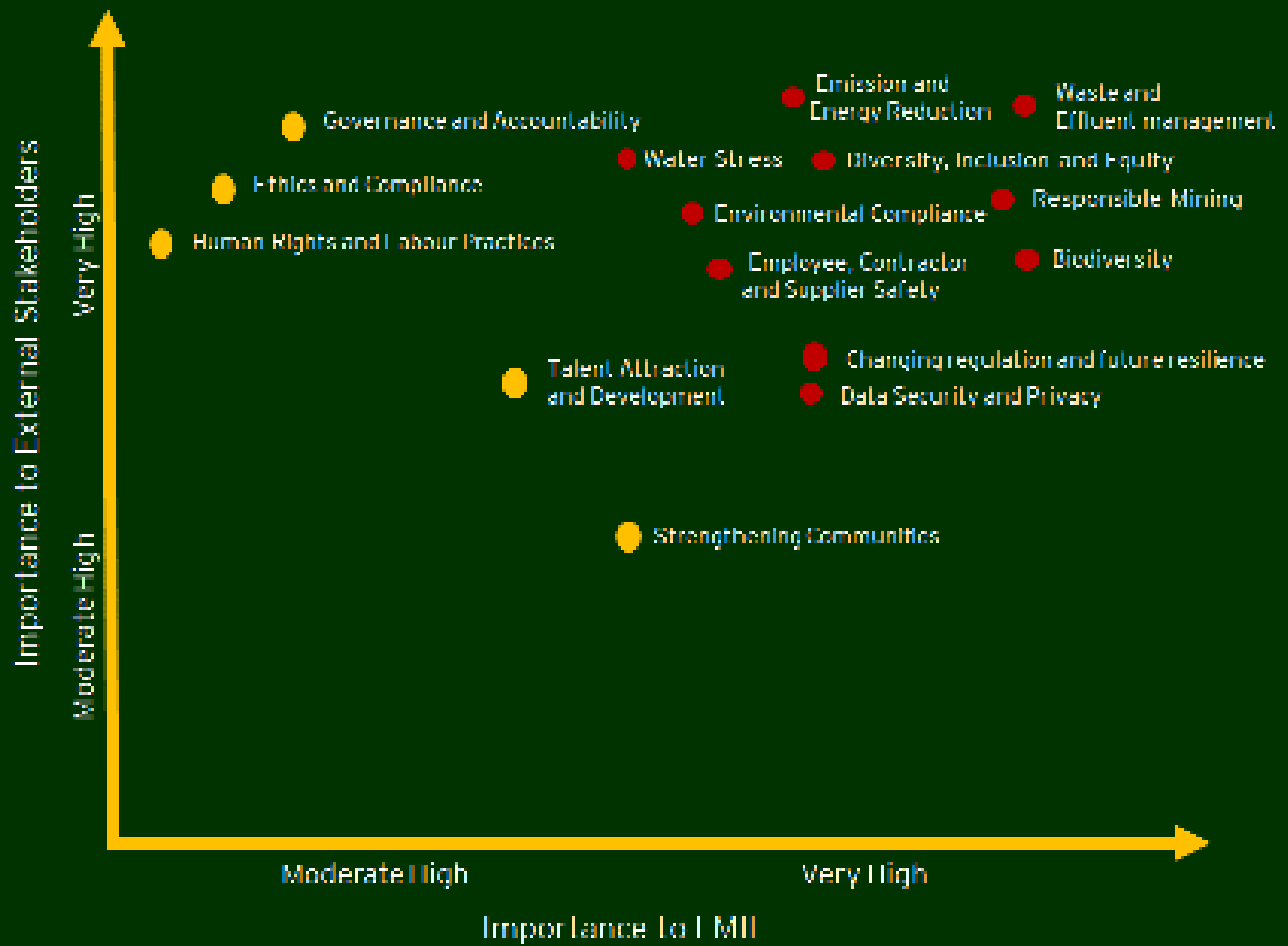
- » In the final step, a materiality matrix was prepared to map the outcome of materiality analysis exercise. The matrix presented material topics based on their importance to company and importance to stakeholders. Even though the matrix illustrated only showcase aspects which were ranked on a scale of Moderate High to Very High, we will address each aspect equally, as we believe that an aspect that might be of low importance today, could become more important in the future. Therefore, we have taken equal care to report on each identified material.

The following table maps the outcome of the above exercise and prioritizes the material issues.





# Our ESG Priorities



- EMIL perceives as moderate importance in terms of risk.
- EMI perceives as High Importance in terms of risk.

# Governance and Accountability





# Governance and Accountability

EMIL as a part of Aditya Birla Group envisages becoming a diversified global mineral resource company through sustainable business practices, aimed at value creation for its stakeholders, conservation of mineral resources, protection of the environment, development and enhancement of health, safety and well-being of its people and contributing to the society at large.

EMIL wishes to reach higher standards and go beyond legal compliance to comply with international standards and external expectations. Thus, EMIL has been able to form a competent structure of multi-layered corporate governance.

## Management Approach

EMIL's philosophy for ensuring good corporate governance stems from the robust Aditya Birla Group Corporate Principles and Code of Conduct. The Principles and Codes are practised and monitored within the Group with an aim to follow the highest standards of ethics and values. EMIL is committed to the adoption of best governance practices and its adherence in the true spirit, at all times. These practices are self-driven, reflecting the culture of the trusteeship that is deeply ingrained in the value system and reflected in the strategic growth process.

Composition: To drive governance, the Board comprises of Executive and Independent Directors. The Independent Directors on the Board are experienced, competent and highly reputed persons from their respective fields. The Independent Directors take active part at the Board and committee meetings, which adds value in the decision-making process of the Board of Directors. The details of composition of the Board, number of other Directorship, Chairmanship/ membership of committees of each Director in other companies, attendance of Directors at the Board Meetings are as follows:

S. No.	Name	Category of Directorship	Year of appointment	Number of other directorships in any Indian Public Limited Company
1	Mr. Tuhin Kumar Mukherjee	Managing Director	2011	1
2	Mr. Ashwin Kumar Kothari	Independent Director	1970	3
3	Mr. Sunil Kumar Daga	Independent Director	1975	8
4	Mr. Manish Kumar Newar	Non-Executive Director	1993	6
5	Mr. Giriraj Maheswari	Independent Director	2014	3
6	Mr. Nagendra Chandra Shah	Independent Director	1973	-
7.	Ms. Anita Ramachandran	Independent Director	2020	9

## Committees of Board

The Board delegates responsibilities to different types of committees, constituted to deal with matters and monitor the activities falling within the respective terms of reference. These committees are based on the level and nature of responsibility. The committees to the Board include:

- » Audit Committee
- » Finance Committee
- » Nomination and Remuneration Committee
- » Corporate Social Responsibility Committee

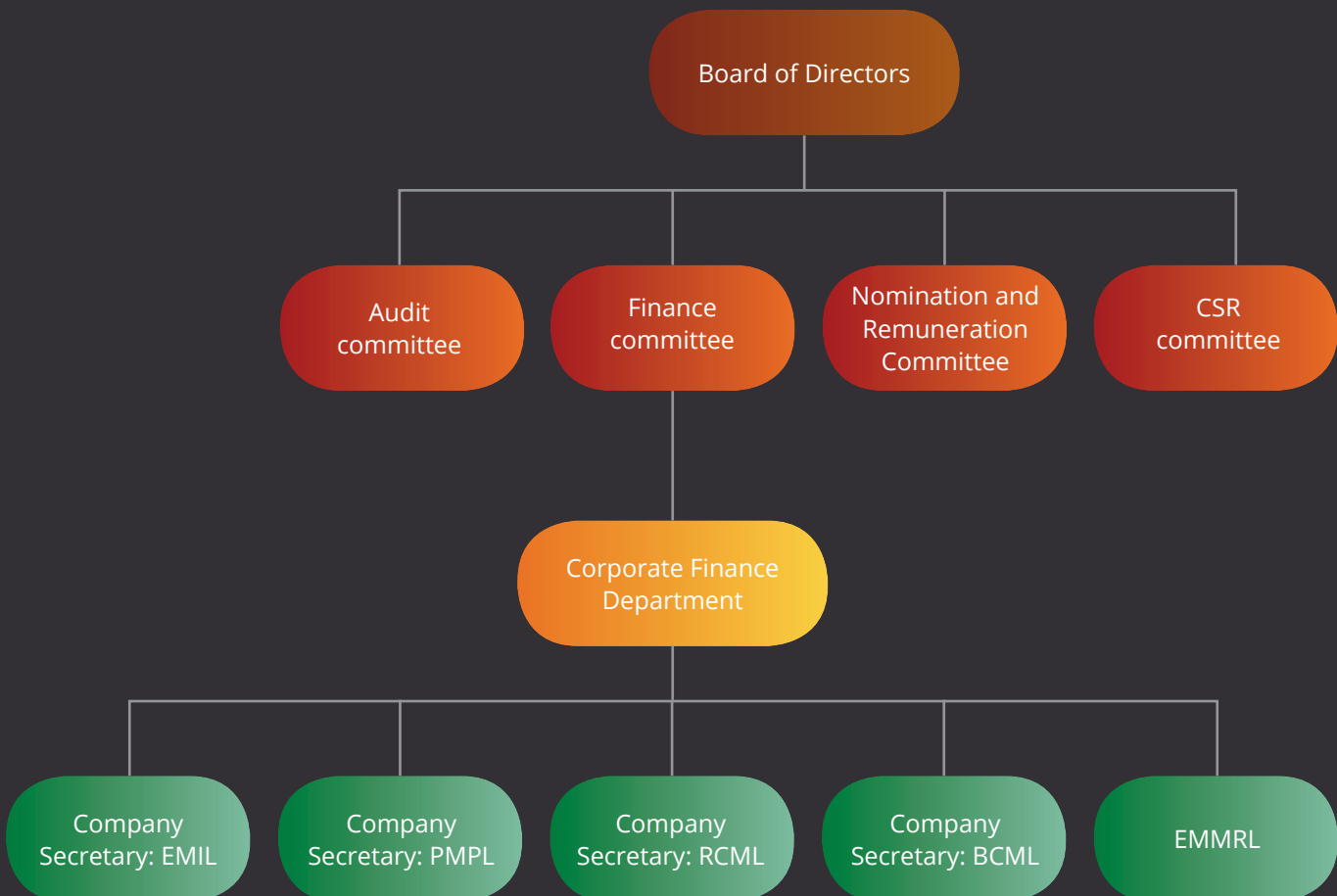




During the financial year, 2020-21, Board Meetings and Committee Meetings were held as follows:

Board Meeting Date	Audit Committee Meeting Date	Finance Committee Meeting Date	Nomination & Remuneration Committee Meeting Date	Corporate Social Responsibility Committee Meeting Date
27.04.2020	-	-	-	-
25.05.2020	-	-	-	-
17.07.2020	17.07.2020	-	17.07.2020	17.07.2020
04.09.2020	04.09.2020	-	04.09.2020	-
30.09.2020	-	12.10.2020	-	-
12.11.2020	12.11.2020	23.12.2020	12.11.2020	12.11.2020
10.02.2021	10.02.2021	-	-	-
25.02.2021	-	19.02.2021	25.02.2021	-
26.03.2021	-	-	26.03.2021	26.03.2021
31.03.2021	-	-	31.03.2021	-

## Governance Structure





## Audit Committee

The Audit Committee oversees financial reporting processes, reviewing periodic financial results, reviewing with the management the financial statements and adequacy of internal control systems. It also reviews the adequacy of internal audit function and risk management, and discusses with internal and statutory auditors the scope of audit including the observations of the auditors and discussions with them on any significant findings.

Pursuant to Section 177 of the Companies Act, 2013, the Audit Committee of the Board of Directors as on date comprises of the following members:

- » **Mr. Sunil Kumar Daga**  
Independent Director-Chairman
- » **Mr. Tuhin Kumar Mukherjee**  
Managing Director- Member
- » **Mr. Nagendra Chandra Shah**  
Independent Director- Member
- » **Mr. Giriraj Maheswari**  
Independent Director- Member

Members of the Committee possess financial/accounting expertise/exposure

## Nomination & Remuneration Committee

The Nomination & Remuneration Committee identifies and recommends to the Board individuals from the company qualified to become a Director or part of the senior management. It gives the Board approval on inducting or removing a person from the senior management. It is also responsible for devising the Board Diversity Policy, evaluating the performance of every Director, and recommending the remuneration for the Directors, managerial positions and other employees.

The Nomination & Remuneration Committee as on date consists of:

- » **Mr. Ashwin Kumar Kothari**  
Independent Director- Chairman
- » **Mr. Sunil Kumar Daga**  
Independent Director-Member

- » **Mr. Manish Kumar Newar**  
Non- Executive Director-Member
- » **Mr. Giriraj Maheswari**  
Independent Director- Member

Company's Policy on Appointment and Remuneration:

Pursuant to the requirement of the Companies Act, 2013, the Board had adopted the Nomination and Remuneration Committee Charter and Executive Remuneration Philosophy/Policy as framed by the Nomination & Remuneration Committee. The said policy ensures that the level and composition of remuneration are: (a) reasonable and sufficient to attract, retain and motivate Directors, Key Managerial Personnel and senior management of the quality required to run the company successfully; (b) relationship of remuneration to performance is clear and meets appropriate performance benchmarks; and (c) remuneration to Directors, Key Managerial Personnel and senior management involves a balance between fixed and incentive pay reflecting short and long-term performance objectives appropriate to the working of the Company and its goals.

### Board Evaluation:

The performance evaluation of all the Directors, the Board as a whole and the Committees are conducted based on the criteria and framework adopted by the Board on the recommendation of Nomination & Remuneration Committee. The Committee and the Board have laid down the manner in which formal annual evaluation of the performance of the Board, its Committees and individual Directors has to be made. It includes circulation of evaluation forms separately for evaluation of the Board and its Committees, Independent Directors /Non-Executive Directors/Executive Directors. These evaluation forms cover various aspects of the Board's functioning such as composition of the Board and Committees, performance of specific roles and responsibilities, contribution at meetings and exercise of independent judgement. Evaluation of Board as a whole, its Committee and Board members excluding the Director being evaluated is done by the individual Directors, followed by submission of collation to the Nomination & Remuneration Committee and feedback to the Board.



## Finance Committee

The role of the Finance Committee is to expeditiously avail fund- or non-fund based facilities, borrow money and avail working capital facilities from Commercial Banks, to authorise officers to undertake and enter into foreign exchange transactions, commodity hedging transactions, issue of Power of Attorney to officers/ executives, explore various project opportunities and formation of subsidiaries, Special Purpose Vehicles or any other form of JV etc. and to take any other decisions which may be required urgently including the matters delegated by the Board from time to time except for matters which are required to be specifically considered only at a Board meeting and cannot be delegated to the Finance Committee under specific restraint of law.

The Finance Committee of the Board of Directors as on date comprises of the following members:

- » **Mr. Ashwin Kumar Kothari**  
Independent Director Member
- » **Mr. Sunil Kumar Daga**  
Independent Director Member
- » **Mr. Tuhin Kumar Mukherjee**  
Managing Director- Member
- » **Mr. Giriraj Maheswari**  
Independent Director Member

## Corporate Social Responsibility Committee

The Corporate Social Responsibility Committee is responsible for formulating the CSR policy, recommending the key activities to be undertaken by the company and the amount of expenditure to be incurred in the activities suggested, providing guidance on carrying out these activities and monitoring its progress. The CSR committee is constituted of the following members:

- » **Mr. Ashwin Kumar Kothari**  
Independent Director- Chairman
- » **Mr. Sunil Kumar Daga**  
Independent Director- Member
- » **Mr. Tuhin Kumar Mukherjee**  
Managing Director- Member

The Board had laid down the Company's policy on CSR and the CSR activities of the Company are carried out as per the recommendations of the Committee. The CSR Policy aims to actively contribute to the social and economic development of the communities in which we operate. The policy identifies projects under the focus areas of education, health care, sustainable livelihoods, infrastructure development and espousing social causes, which are carried out under the aegis of the Aditya Birla Centre for Community Initiatives and Rural Development. The CSR policy is uploaded on the Company's website at [www.esselmining.com](http://www.esselmining.com).





# Code, Policies and Standards

Aditya Birla Group's Code of Conduct: Aditya Birla Group has set up a Code of Conduct for all its employees to ensure transparency, ethical conduct, a gender friendly workplace, legal compliance and protection of property and information.

## Whistle Blower Policy

The policy provides a platform and mechanism for the employees and Directors to voice their genuine concerns or grievances about unprofessional conduct without any fear of reprisal. The policy lists down the identifiable and non-identifiable set of actions/ behaviour applicable to all employees across the Company and the procedure of reporting of violations/potential violations.

## CSR Policy

The CSR Policy formed as per Section 135 of the Companies Act, 2013 and the Companies (Corporate Social Responsibility Policy) Rules, 2014 by the Ministry of Corporate Affairs details EMIL's main areas of focus, evaluation and budget criteria and implementation procedure.

## Anti Bribery and Anti- Corruption Policy

Ensures that every activity is conducted with honesty, integrity, fairness and with utmost ethical standards. It applies to employees at all levels, Directors, consultants, agents and other associated persons. Matters relating to hospitality, offset obligations, employment of relatives, guidance on gifts, political / charitable contributions, extortion / blackmail responses etc. are all covered in this policy.

## Executive Remuneration Policy

Aditya Birla Group encourages a culture of growth and entrepreneurial risk taking. Its policy includes and supports designs of programmes that align executive rewards which include incentive programmes, retirement benefits and promotion and advancement opportunities which ultimately act as a tool of long-term stakeholder management.



# Data Governance and Security

Information security controls Big Data analytics, which examines large swathes of data to uncover patterns, correlations and other insights. With today's technology, it is possible to analyse data and derive actionable insights almost in real time. One of the key aspects of EMIL's digital transformation is harnessing the power of data analytics to drive critical business decisions.

Our integration of data analytics into operating models, risk management and decision-making processes is crucial to maintain a competitive edge. We will continue to invest in cutting-edge deep-learning Artificial Intelligence (AI) algorithms to deliver hyper-personalised experiences to customers across touchpoints through AI-powered 'relationship managers'.

## Ensuring Information Security and Data Privacy

The increasing digital disruptions resulting in high degree of interconnectedness have exponentially enhanced the need for ensuring data privacy and information security. As an organization that is constantly leveraging digitalisation to drive business growth, EMIL has instituted cyber hygiene requirements like Network and Web Application Firewalls along with Intrusion Prevention Systems to detect and eliminate cyber threats. We adhere to the industry standard practices, conduct regular risk assessments and aggressively test the resilience of our digital infrastructure to external threats. The current controls we have in place include:

### Information Security Controls



Document Rights Management



Data Leakage Prevention Solution



Secure Remote Access



Privilege Identity and Access Management



Network Access Control



Database Access Management



Database Access Management



Security Information and Event Management



## Information Security Process

### Incident response framework

- » For protection, detection, containment, response and recovery

### Annual information security audits

- » To ensure all information security efforts are effective and constantly improved

### Reviews of the business process

- » To ensure information security risks are mitigated or minimized

Covid-19 has given further impetus to the need of having a strong data governance structure. As most of our employees resorted to work-from-home, we understood the importance of data governance. This year was a very eventful year in terms of technology enablement. We shifted to cloud services to ensure access to every employee working from home; we upgraded our system to multifactor authentication

thereby minimizing chances of data theft; and we have been trying to ensure every system is complaint in terms of system and antivirus. To further enhance the data security process, we conduct mandatory data security training through our portal Gyanodaya. We are planning to adopt ISO 27000 framework at our sites and Global File Sharing framework to further strengthen our data governance practices.



# Our Economic Performance





# Our Economic Performance

Our company holds a responsibility towards our stakeholders to maintain a long-term sustainable financial status. Information on creation and distribution of economic value provides a basic indication of how our organization has created wealth for our shareholders and the relevant stakeholders.

In the last quarter of FY 2019-20, the outbreak of Coronavirus Virus Disease (Covid-19) infected millions of people, causing over several thousand deaths worldwide. This in turn has triggered a global economic crisis, supply chain disruption and import and export disruption, and the mining industry is no exception. Like in the past few years, we have continued to demonstrate strong economic performance to meet the demands of customers through our already existing robust supply chain and operational systems throughout the reporting period of FY 2020-21. Diversified expertise and product range are our catalysts to success. The parameters through which we monitor our sustainable financial growth are listed below:







## Direct economic value generated and distributed

Economic Value Generated & Distributed (EVG&D)	Unit	FY 2018-19	FY 2019-20	FY 2020-21
1) Economic Value Generated				
a) Revenues (including other income)	INR Lacs	4,59,079.05	527,992.16	5,45,273.30
2) Economic Value Distributed				
a) Operating Costs	INR Lacs	2,82,600.79	267,236.03	2,19,739.92
b) Employee benefits and wages	INR Lacs	14,417.03	16,516.38	15,275.24
c) Payment to providers of capital	INR Lacs	54,095.90	51,825.22	30,949.34
d) Payments to governments	INR Lacs	74,364.62	85,438.24	99,261.01
e) Community Investments	INR Lacs	1,958.63	1,139.45	993.27
f) Depreciation	INR Lacs	12,998.82	30,728.41	13,308.24
g) Share of Loss / (Profit) of Associate Co. - (Dec'20)	INR Lacs	2,679.59	3,273.11	2,804.16
3) Economic Value Retained	INR Lacs	15,963.67	71,835.32	1,62,942.12

**Financial assistance received from government:** We do not receive any assistance from the government

### Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation

Offering wages above the minimum is a factor in building strong community relations, employee loyalty, and strengthening an organization's social license to operate. The entry level wage in EMIL is always equal as per the law of the land, irrespective of gender. The standard entry-level wage as per:

- » Iron Ore and PMPL: As on 31st March 2021, the minimum wages in our Koira mines are in line with the central minimum wages. The details are INR 431 per day for unskilled workers, INR 539 per day for semi skilled workers, INR 645 per day for skilled workers and INR 752 for high skilled workers. Similarly in our PMPL unit we adhere to the state minimum wages guidelines which are INR 311 per day for unskilled workers, INR 351 per day for semi skilled workers, INR 401 per day for skilled workers and INR 462 per day for high skilled workers.
- » In BCML and RCML, Contractor workers are covered under HPC rate of wages, which is much higher than the Central minimum wages. The minimum wage for the lowest paid employee on surface in the mining industry is Rs. 6,204.62 per month or Rs. 239.63 per day.
- » Noble Ferro Alloys (NFA)- we ensure payment of wages as per minimum wages or more. We also ensure the workmen are covered under ESIC (Employees' State Information Corporation) before deployment in work. As on 31st March 2021, the minimum wages as per worker categories were INR 324 per day for unskilled workers, INR 332 per day for semi skilled workers and INR 340 per day for skilled workers

CSR expenditure is depicted below:

Employee benefit expenses	FY 2018-19	FY 2019-20	FY 2020-21
CSR (INR Lacs)	642.63	426.14	436.41
General Donation (INR Lacs)	1,316.00	713.31	555.86
Total (INR Lacs)	1,958.63	1,139.45	993.77



## Indirect Economic Impacts

Indirect economic impact refers to the ancillary effect observed to set in, consequential to the direct economic activities. Secondary impacts draw the link between upliftment of local community and growth of economy.

### Development and impact of infrastructure investments and services supported

EMIL concurs with the outlook that investment in infrastructure and associated development activities increases productivity, optimizes efficiency and most importantly transforms society by improving quality of life. To understand the essential requirements of the local people, an assessment is carried out based on interaction with local community representatives. Specific domain for investment is determined based on the results of need assessment and feasibility. Few of the noteworthy actions taken by EMIL to bring a

positive change in society thereby affecting economy are as follows: public all-weather roads, bridges, drains and culverts, electric sub-station and supply, solar street lights, water lifting and distribution system, boundary walls and play ground, construction of classrooms, marriage hall, club houses, community centres, disaster proof houses, solar light and charging points, mega water supply project, conference hall and dining hall, pond digging and desiltation, borewell construction, construction of digital library, and distribution and ventilation unit.

### Significant indirect impacts

EMIL provides large scale employment opportunities to the people living around all its units and offices. The indirect economic impacts can be felt within a 10 km radius of all its operations.



*Solar Street Lights installation at Koira Mines*

# Our Environmental Performance





# Our Environment Performance

The issue of climate change has become a pressing reality today and there is no turning back from the fact that it is going to affect the way business performs in future. Global climate change has already had observable effects on the environment. Mining by nature is an activity that is exhaustive in terms of natural resources. There have been several dialogues about the environmental implications mining causes and several frameworks and guidelines have been introduced in the past decade to mitigate the effect and move towards responsible mining.

For EMIL, natural resources are essential since the main business consists of transforming mineral resources into shared richness and value. Thus, the company is alert to its activities' impacts on the environment and consequently on its communities. EMIL has implemented technologies and systems to optimise energy usage, reuse water, maintain air quality and monitor all its parameters in real time to materialise its commitment towards the environment.

## Our commitment

For us, at EMIL, environmental considerations are embedded into the very DNA of our business. Our operations use best-in-class scientific techniques and processes, which are the key to sustainability. We are relentless in our endeavour to create an eco-efficient

mining outfit. This chapter details EMIL's environmental journey, which involves responsible mining, energy initiatives, Scope1, Scope 2 and other air emissions, water stewardship, biodiversity commitment and responsible supply chain.





## Our approach to environmental issues

EMIL endeavours to become a diversified global mineral resource company through sustainable business practices, aimed at value creation for its stakeholders, conservation of mineral resources, protection of the environment, development and enhancement of health, safety and well-being of its people and contributing to the society at large.

Hence, EMIL, together with internal and external stakeholders, has created the Sustainable Business Framework of policies, technical and management standards with guidance notes, and associated training courses to help the business translate these requirements into business management systems and operational practices.

EMIL adopts a ABG Group Sustainability Framework which is being followed across all our Group companies. Our Group Sustainability Framework is aligned to the following international standards:



## Responsible mining

Everything manufactured or constructed, from buildings to roads, from computers to automobiles, contains material mined from the Earth. Mining provides important employment and financial opportunities for host communities and host countries. Mining is a complex and intensive process that can impact the physical environment, such as through the loss of habitat or contamination of water, and affect local communities' social and economic lives, such as through displacement of livelihoods or cultural impacts.

EMIL has ingrained in its ethos the principles of responsible mining. We are mindful of the fact that resources must be extracted and conserved in such a way that the future generation can also reap its benefits. Since inception, our operations uphold the principles of responsible mining. We conscientiously conduct our business in a transparent and ethical manner that complies with both national regulations and international standards, thereby ensuring that our processes and frameworks create an environment of trust credibility

and mutual respect with our employees, communities and other stakeholders. Moreover, from the entry phase of any project or mine, we constantly endeavour to create positive economic, social and environmental legacies for workers, communities and ancillary local companies. Our inclusive approach through thorough stakeholder consultations assures that mining is carried out in a way that enhances environmental values, and avoids or minimizes impacts to the environment and communities and also simultaneously creates value by enhancing the health, safety, cultural values, quality of life and livelihoods of workers and communities. Along with robust policy framework and procedures, we believe that our best in industry software plays a pivotal role in ensuring that the principles of responsible mining are incorporated throughout our value chain. The following case studies showcase our numerous systems and initiatives that consolidate the fact that we operate in a manner that is ethical, transparent, inclusive and responsible.

### Case Study: SURPAC Software

EMIL's iron ore business uses SURPAC software for its mine planning activities. SURPAC is the world's most popular geology and mine planning software. It supports open pit and underground operations and exploration projects in more than 120 countries. The software delivers efficiency and accuracy through ease-of-use, powerful 3D graphics and work flow automation that can be aligned to company-specific processes and data flows.

SURPAC addresses all the requirements of geologists, surveyors and mining engineers in the resource sector and is flexible enough to be suitable for every commodity, ore body and mining method. Its multilingual capabilities allow global companies to support a common solution across their operations.

#### Benefits:

- » Comprehensive tools include drill hole data management, geological modelling, block modelling, geo-statistics, mine design, mine planning, resource estimation, and more.
- » Modular and easily customized to adapt to changing needs.
- » Expanded sharing of data, skills and project knowledge across teams and departments.
- » Increased time savings with compliance to company specific processes.
- » Consistency of execution using task automation.

EMIL's iron ore business utilizes the software for optimum mining of resources thereby aiming towards sustainable mining.



## Case Study: Responsible Mining at Iron Ore Business: Koira Mines

EMIL was required to undertake only 14 villages as core CSR villages under the compliance rules. However, resonating with the Aditya Birla philosophy of doing good for the society, it had taken another 11 periphery villages and the Barbil Municipality as operational areas. We conducted several studies of need assessment and have taken up the following infrastructural development projects in recent years:

- » Improving the standards of public all-weather roads
- » Developing bridges, drains and culverts
- » Building electric sub-station and supply
- » Enhancing water lifting and distribution system
- » Building structures in the villages such as boundary walls and playground, marriage hall, club houses and community centres
- » Developing disaster proof houses
- » Providing houses with solar light and charging points

- » Mega water supply project to enhance water supply
- » Investing in pond digging & desiltation



*Sunflower Cultivation*

## Case Study: Paddy Cultivation in BCML and RCML- Responsible Mining and Land Reclamation

A sustainability initiative was taken up by BCML in association with Mahanadi Coalfields Limited. The mined- out area was reclaimed/ backfilled with the overburden/waste generated during the coal mining operation. For proper compaction and to avoid potholing, 4- to 5-stage compactions of waste were done in the mine void. The final compacted layer of rock was blanketed with the topsoil removed during the mining operation. The surface was brought to the original ground level.

There are numerous examples where a forest is grown over the reclaimed land. However, as a responsible corporate citizen, EMIL thought to put

in extra effort in blanketing the topsoil and bringing back the land's fertility. We have decided to go for cultivation of paddy over the reclaimed land.

Our rice cultivation in both BCML and RCML testify to our approach in biodiversity conservation. In association with the Bhagalpur Agriculture University, the RCML team has been able to reuse 4 acres of land for paddy cultivation. The soil that has been used for cultivation is the overburden generated from mining. This is a milestone with respect to field reclamation approach in India as such research and development will further help EMIL in its effort to carry out responsible mining.





# Our Way Forward

## Changing Scenario

Seeing the current scenario, it can be easily said that the demand for metals and minerals will be high, albeit the use will be more conscious. The demand, however, will still see a steep rise. Therefore, for a company like EMIL, which has majorly diversified its business in metal and mining, it becomes extremely important to form a strategy to ensure that it gives back the land in the best possible form. Some of the key highlights that demonstrate the company's future outlook are imbibed in the mine plans of its recent acquisitions and closure of old mines.

## Our Approach in Newer Acquisition

The commercial coal mines in Bandha and Radhikapur and the Bunder Diamond block are some of the recent acquisitions by EMIL and are still at the planning phase. EMIL is trying to implement a 360-degree green approach to ensure that processes are constantly monitored and improved, and investment in cleaner technologies is continuous to fulfil our mission. Our intent has always been to go beyond regulatory norms and continually improve our environmental and social performance.

## Our Plan of Action

To further strengthen its commitment, the initiatives that EMIL plans to undertake in the near future include:

- » Land reclamation plan since the inception of the mine plan
- » Developing a green cover around the open mine
- » Corporate citizenship enhancement around mine reclamation
- » Research and development to further ascertain the types of cultivation that can be possible on these lands



*Drinking Water Project at Koira Mine*



## Environmental compliance

EMIL has been one of the pioneers in the Indian mining business and therefore leads the way by example. We comply with all the standards set by the State Pollution Control Board (SPCB) and Central Pollution Control Board (CPCB). As per the requirement, all emissions are monitored in real time. To further minimize the effects on environment, the iron ore business and the Noble Ferro Alloys (NFA) business are certified with ISO 14001. EMS certification requires a proper methodology and governance structure to tackle environmental issues and EMIL has adept and diversified business-wise and central teams to ensure that EMIL complies with all the standard requirements. All our operational units also ensure that all activities are conducted in a manner that safeguards any environment risks and minimizes any non-compliance. We are proud to disclose that there have been no such cases of environmental non-compliance in any of our businesses during FY 2020-21.


## Resource Conservation and Responsible Supply Chain



EMIL is predominantly in the mining business. The main raw material that is required in mining is High Speed Diesel (HSD) which acts as the source of energy (the same is disclosed in the subsection 'Energy'). In our NFA manufacturing unit, the main raw material sources are natural resources such as Vanadium Pentoxide from waste of bauxite mineral and Molybdenum Oxide from mined ore. With EMIL's recent acquisition of PMPL, the Company has further forayed into manufacturing. PMPL uses iron ore as one of the raw materials. Most


of our raw materials are sourced locally. We also try to create an institution of industry symbiosis and embrace the principles of circular economy by procuring raw material from waste products of other businesses to fulfil our commitment of resource efficiency and cleaner production. We have a very efficient supply chain framework and procedure to materialize our vision into reality and the same is illustrated below:

### EMIL's Supply Chain



**Our Scope of Operation**

EMIL continuously strives to create a supply chain that is reliable, resilient and, above all, responsible. According to EMIL, a responsible supply chain means identifying and assessing environmental, social and regulatory risks, and pre-emptively mitigating or adapting the assessed risks, thereby future-proofing any disruptions arising from legal noncompliance, climate change and human rights violations. EMIL's journey to transform its supply chain into a resilient, robust and responsible one has resulted in rolling out various good practices throughout its value chain. These practices are gaining impetus in new ventures through close collaboration with suppliers and various internal functions to digitally transform supply chain operations.



**Our Strategy**

Maximizing production while minimizing the pressure on our resources is one of our key priorities. By creating a streamlined approach to our supply chain network, we intend to fulfil our commitment of resource efficiency. We understand that with multiple assets getting stressed, EMIL will continue looking for opportunities of efficient distribution.

To maintain a robust supply chain framework, vendors form the chief pillar. We have a proper vendor management system where we try to address vendor concerns and create an ecosystem that is mutually rewarding and productive.





## Vendor Management at EMIL



### Our Scope of Operation

EMIL's vendors and suppliers are the key to its success and growth. Vendors' requirements are frequently discussed and resolved immediately. EMIL also has a supplier grievance mechanism which is robust and effective for early redressal of grievances. Besides having a grievance redressal cell, the Company conducts vendor annual meets to discuss any gaps and collaboratively engages with vendors on improvement roadmaps.



### Our Strategy

EMIL's approach emphasises inclusive growth of all its stakeholders by generating shared value. The Company prioritizes reducing supply chain risks through developing local and short supply chains, in the process aiding small and micro manufacturers to develop, grow and contribute to the local economy as well as EMIL's growth.





# Energy Management at EMIL



EMIL as a company is committed to minimizing its energy usage in near future. Considering the service-providing nature of our business, physical infrastructure, technology equipment, electricity, water and related ancillaries are vital for our operation and significantly add to our environmental footprint. We have resorted to adaptation of clean technology and energy efficient techniques and obtaining energy from renewable sources to lower EMIL’s carbon footprint. Our underlying focus through these initiatives is to reduce our dependency on conventional fuel sources, which are gradually diminishing, and move towards cleaner fuel.

Key initiatives of EMIL and their contribution to energy conservation and emission control in FY 2020-21 are described below:

## Our Energy Conservation Initiative

### Iron Ore Business- Koira Mines

Main source of energy is electrical energy. HSD is used in DG sets and Heavy Earth Moving Machineries (HEMMs). Several initiatives have taken place to ensure energy efficiency. Koira mines have solar panels installed to enhance the energy mix. For saving energy, lights that switch off automatically due to microwave motion sensors have been installed in the office area.

- » Use of 5 star rated electrical appliances for reduction of energy consumption.
- » Use of low wattage LED flood lights and LED street lights in colonies and mines.
- » Replacement of incandescent bulbs with low wattage LED lamps.
- » Replacement of old motors with energy efficient motors.
- » Replacement of incandescent tube lights 45 Watt including choke loss with low wattage LED tube light 16 Watt.
- » Use of Astronomical Timer Switch for auto ON and OFF of street lights/mast towers at a pre-set time to reduce unnecessary use of energy, according to sunset and sunrise timing in that area.
- » Reduction of idle running of equipment with close monitoring and effective operation. Also, use of higher capacity cone crusher motors,

remote monitoring of load curve through use of Automatic Setting Regulation (ASRI), Current Transformer (CT) and power transducer and other sensors.

- » Installation of On Line Tap Changer (OLTC) in power transformer for 33KV High Tension (HT) power supply at constant voltage during any fluctuation in incoming voltage.
- » Installation of Automatic Voltage Regulator (AVR) in Low Tension (LT) 415 volt power supply for constant voltage.
- » Installation of Automatic Power Factor Controller (APFC) in LT 415 volt power supply for improvement of power factor up to 99%, so that power supply quality improves, power losses reduce, equipment efficiency improves, WESCO incentive is received, and unit cost reduces.
- » Use of Variable-frequency drive (VFD) for unbalance motors and operating the motor at desired Revolutions per minute (RPM).
- » Use of soft starter in higher capacity motors for limiting starting current.
- » Use of dedicate transformer for lighting load, leading to energy savings.



### Contract Coal Business

For the BCML and RCML units, the main source of energy is HSD. HSD is majorly used for HEMMs, Coal Transporting Trippers, Payloaders, DG sets etc. The BCML unit has conducted an energy audit in 2019-2020 to optimise energy usage.

### NFA Business

The main source of energy is grid electricity purpose. An HSD-run DG sets are present for standby purpose. PNG is used in boilers and furnaces. The NFA unit has conducted a boiler pipeline redesign, optimizing boiler utilization. Natural gas utility consumption of the Chemical plant has thereby reduced by 5.11 SCM per MT of Ferro Vanadium production.

### Pro Mineral Business

The PMPL unit is new as compared to the other verticals. Since the planning phase, the PMPL division has proactively developed its infrastructure so that the plant is energy efficient. The installation of Variable Direct Injection (VDI) fans in the unit is a conscious measure to optimise electricity usage.

Mining is considered mainly as an “energy exhaustive” industry and energy consumption is generally hard to abate in this sector. Therefore, EMIL has invested heavily in solar and wind technology to achieve its commitment to enhance its renewable energy portfolio. The case study showcases our renewable energy profile.

## EMIL's Venture in Clean Energy Development

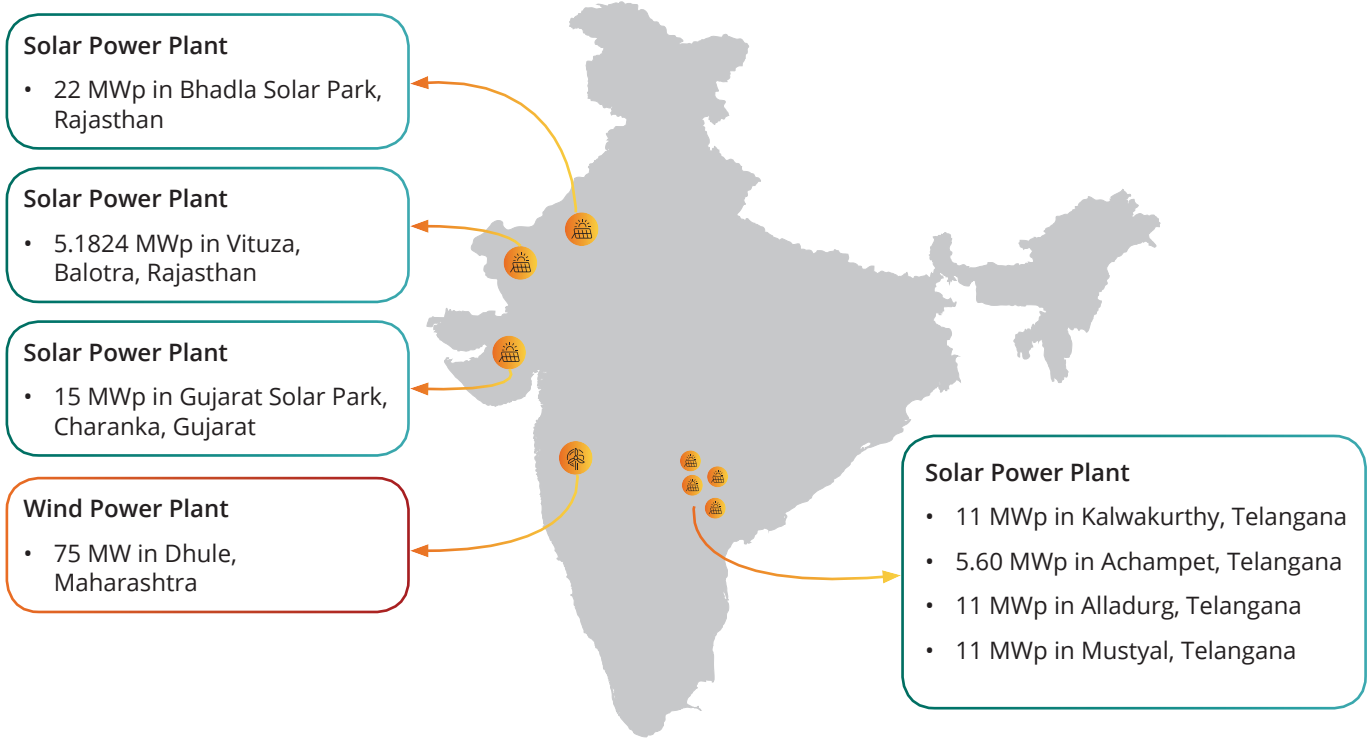
India currently has the fourth highest wind installed capacity in the world with total installed capacity of 39.24 GW (as on 31 March 2021). The total installed capacity for solar power is more than 40 GW (as of 31 March 2021). Solar power capacity has increased more than 15 times in the last seven years, from 2.6 GW to 40 GW in March 2021. The government is aiming to achieve 100 GW of solar energy capacity by 2022. The Government of India further targets to increase the total renewable energy capacity to 450 GW by 2030.

To grow with India and fulfil its commitment as a responsible corporate, EMIL was the first Aditya Birla Group company to foray into renewable energy with investment in 75 MW of Wind power in FY 2005 and FY 2006.

A total installed capacity of 75 MW wind power is located at Dhule, Maharashtra. In solar power, the current installed capacity of 80.78 MW is spread across the states of Gujarat, Rajasthan and Telangana. In FY 2020-21, we sold 126602.65 MWh of electricity from our solar plants. The wind energy project was also recognised as a CDM (Clean Development Mechanism) project under the Kyoto Protocol of UNFCCC. This

made it eligible to provide carbon credits to states that required the same for carbon off-setting. All the energy generated from both the power systems is sold to the respective state distribution committees.





### Way Forward

At EMIL our systems are designed to inculcate growing needs, accommodate paradigm shifts and develop much-needed resilience against issues arising from climate change and indiscriminate use of non renewable resources. EMIL is also committed to safeguard natural resources as it grows. We are currently trying to diversify in our approach to cleaner energy. Our future plans include investing in cleaner fuel sources and more energy efficient technology and constructing green infrastructure so that all our new facilities are resource efficient and inculcate the concept of optimal usage of resources so that the future generation can also reap the benefits.





## Pathway to a cleaner Energy



### Our approach

The world is seeing a paradigm shift with respect to decarbonizing their practices. Most of EMIL's carbon footprint is from energy sources, hence, the Company is currently on the path of energy diversification.



### Commitment to a global Platform as RE 100

We plan to build an infrastructure and commit publicly to several targets to enhance our commitment to renewable energy. We are planning to commit to RE 100. To adhere to RE 100, all companies need to meet the following targets:

1. 100% use of renewable energy by 2050, with interim targets of at least:
  - 60% use of renewable energy by 2030
  - 90% use of renewable energy by 2040



### Our Roadmap

The roadmap to lower carbon economy includes:

- » Green policies such as carbon pricing schemes and renewable portfolio standards, which are driving power generators away from coal-fired thermal generation.
- » An abundance of low-cost, cleaner-burning natural gas, which is being used as a bridge fuel in transitioning away from coal.
- » Supportive incentives to invest in renewables and bring down the price of technology



### Implementation Plans

The main initiatives the Company plans to take include:

- » Large scale renewable energy integration
- » Having roof top solar panels at all its facilities
- » Energy efficiency through green buildings
- » Storing of surplus power in batteries for regulated use
- » Research and development in power storage initiatives

## Greening our Buildings and Units



### Our approach

EMIL is planning to venture into making all its plants and offices energy efficient. The Company will ensure that all new buildings and retrofitting of old buildings follow Green Building norms and guidelines through application of processes that are environmentally responsible and resource efficient throughout the building's lifecycle and at the same time the processes and materials used do not have any negative impact on human health.



### Our Roadmap

EMIL is trying to prepare a roadmap to achieve this vision. The planning may broadly include:

- » Rolling out a Green building policy
- » Awareness generation on environment protection
- » Compact Fluorescent Lamps (CFLs) to be replaced with highly energy efficient Light Emitting Diode (LED) lighting to reduce energy carbon footprint
- » To optimally use the HVAC system (heating, ventilation and air conditioning) and monitor its switch off time for energy reduction
- » Installation of occupancy and lux sensors which switch off cabin lights within minutes of the occupant leaving his/her cabin, leading to energy saving



- » Solar reflective paint on rooves to reduce roof heating, thereby reducing energy consumption leading to enhanced utilization of day light
- » Use of solar energy for water heating in pantries
- » Use of glass windows to utilize natural day light
- » Installation of energy efficient exhaust fans in toilets and pantries
- » Installation of Water Management System such as low-flow water faucets in all toilets to reduce usage of water and indirectly save energy
- » Purchase and installation of star-rated split ACs, which conserves energy

The future of green energy gives us hope of a carbon neutral future. EMIL takes great care to ensure that its operation has minimum carbon emission and causes the least impact to the environment and the community. Details of initiatives in managing carbon emission are discussed below.

## Managing Emissions from Operations



As a group, ABG has been a pioneer in setting an emission target to help the nation achieve its 2 degree Celsius target. As an intricate part of the Aditya Birla Group, EMIL maintains the prescribed regulatory limits and monitors emission in real time. Monthly scope-wise data is reviewed by the business sustainability team to ensure that no business unit emits emission over the limit set by the CPCB and SPCB and maintains our strong legacy of responsible mining. Our emission portfolio further gives a detailed picture of our emission trends and consistent minimal emission intensity.

There are other types of emission as well during production that we monitor continuously, and our systems and processes are designed to not only ensure legal compliance but also help us in maintaining the emission level at par with the global benchmark.

### Emission Portfolio

- » **Scope 1**, direct emissions occur from sources owned or controlled by the company. For EMIL, Scope 1 emissions can directly be attributed to fuel used, emission within the plants and from vehicles that the company owns or controls, and the activities or equipment associated with the emissions.
- » **Scope 2**, indirect emissions are from generation of purchased energy. The emissions resulting from consumption of grid electricity are also accounted for under Scope 2. The primary use of purchased electricity in EMIL is for running the plants. Electricity is used to drive process motors, fans, pumps, compressed air systems, facility lighting and facility HVAC.





## Other Air Emission

All EMIL's units not only comply with stack emission norms set by the statutory authorities but operate at values that are significantly lower. EMIL has utilized several technologies that ensure that stack emission as well as ambient air quality is well within the prescribed limits set by the respective statutory authorities. The units strive continuously to reduce fugitive emission. Some of the technologies used are listed below:

- » For air management, dust suppression systems such as dry fog (suppresses all types of respirable and larger airborne dust particles), encapsulation, and chutes have been provided at all crusher and screen plants.

- » Atomised fixed sprinklers are provided along the mine's permanent haul road.
- » Regular water sprinkling is carried out by high-pressurised mobile water tankers in and around the mine transportation road. Plantation is also done in and around mines to add to the overall greening efforts.

Apart from the above measures, which are present across all our units, several units have taken additional measures, which are further elaborated below:

## Technology in Air Emission Prevention – Iron Ore



### Iron Ore Business

- » All galleries covered by Side Cladding (GI Sheet) System to prevent spread of fugitive dust and mitigate dust pollution.
- » Use of wide area sweep mist guns for dust suppression at ore crushing and screening units and stock pile area and dry fog system at different transfer points of crushing and screening plant.
- » All DTH drills are equipped with auto dust extraction system along with wet drilling arrangement. The cabins are fully enclosed and ergonomic in design.
- » Pressurized water sprinkling arrangement by 28 KL water tanker along the haul roads.
- » Regular maintenance of haul roads using motor grader along with dust bloc chemicals to minimize fugitive dust during vehicular movement.
- » Environment monitoring is being carried out as per CPCB guidelines and the conditions imposed by the Ministry of Environment, Forest and Climate Change and SPCB.
- » Three real time ambient air quality monitoring stations have been installed.
- » Green belt developed all along the perimeter of the mining lease, vacant land, reclaimed area and over dead waste dumps.



**Pressurized 28 KL Water Tanker**



**Mist Gun at C&S Plant**



For our newer businesses like PMPL, we have incorporated technology from the very inception to reduce air pollution.

## Technology in Air Emission Prevention – PMPL



### Circular Pellet Technology for Dust Minimization

In PMPL, the main areas of air pollution are pellet manufacturing and raw material processing. The various pollution control measures adopted are:

- i) **Circular Pellet Technology (CPT) Indurating Machine:** The dust generated during drying and preheating is passed through two ESPs supplied by Thermax. The dust generated in updraft drying is passed through hood exhaust ESP and the cleaned air is sucked by a hood exhaust fan and discharged through a 75-meter high chimney. Dust collected from ESPs is reused in the pellet process.
- ii) **Product Separation and Screening:** The dust generated during pellet product handling and screening is sent through a bag filter. Dust collected from the bag filter is then reused in the pellet process.
- iii) **Storage Bins of Additives and ESP dust:** Four storage bins of Limestone Powder, Bentonite Powder, Coke Breeze Powder and ESP dust recirculation absorb the respective dust and vents out clean air.

The mining industry is generally considered a hard-to-abate industry but EMIL is taking all measures possible to future-proof its business.

## Technology in Air Emission Prevention – BCML and RCML



### Global Impact

The air pollution impact of a coal mine depends on the magnitude of coal extraction operations, transportation and handling of the mineral. The drills, excavators and off highway dumpers of different capacities are engaged mainly for extracting and transporting the coal from the mine face to the Coal Handling Plant, which adds to the air pollution.

Opencast mining operations generally generate high levels of suspended particulate matter (SPM) and to a very limited extent SO<sub>2</sub>, NO<sub>x</sub>, and CO due to blasting (using explosives), fuel oil combustion, etc. The potential sources of dust emissions are loading / unloading operations, coal handling at Coal Handling Plant and fugitive emissions from blasting and transportation.



### Preventive Measures Taken by Coal Business

Several initiatives are being taken by our coal units. Dust filled air from various material transfer points are controlled with dry fog system, which allows only clean air to go through the vent into the surrounding environment.

For our coal units the emission control processes include:

- » Regular watering on haul road
- » Use of mist water tankers
- » Use of wet drill machine
- » Installation of conveyor in place of road transport
- » Two mist canons are functional to control the dust within the premises
- » Dust Suppression System (DSS) has been installed in hoppers and all transfer chutes
- » Continuous monitoring of conveyors and chutes is done to eliminate any coal dust spillages.





## Technology Interventions at NFA Business



### Initiatives taken

The NFA business has an adequate air pollution control unit for dust pollution control and for other gaseous emissions. Currently:

- » The unit is using piped natural gas for the boiler and furnace applications.
- » For Ferro Alloy Plant, the unit has a dust control system in place with installation of a charging hood over hearth furnace pits, which connect with multicyclones, followed by a bag filter house.
- » For Vanadium Pentoxide furnace, the unit has an adequately designed ammonia scrubbing unit, which has venture scrubber system filled by two packed column scrubbers to covert ammonia gas traces to ammonium chloride solution

## Way Forward

Significant growth of low-carbon technologies has already been implemented by EMIL in the last few years. In line with the CPCB requirements, real time monitoring of emission is present in every plant and all the aspects — from emission monitoring performance to reporting to the leadership chain — are managed through a centralized in-house software ENABLON. EMIL is equally aware of the effect of its operations on water consumption. It is trying to reduce the stress it creates. This is discussed in the next section.

## Towards Lesser Water Dependency

Living in a water-scarce world, we cannot ignore the need for a systematic course of action for water management. United Nation asserts in a 2019 report that 2.2 billion people lack access to safely managed drinking water services and over half of the global population lacks safely managed sanitation services<sup>1</sup>. This urges EMIL to control its water demand, widen conservation practices and set definitive goals and targets. The action points to attain the set goals and target were executed in line with the international standards and United Nations Sustainable Development Goal (UN SDG) 6: Ensure availability and sustainable management of water and sanitation for all. We routinely treat our wastewater through the installed sewage treatment plants (STPs) and reuse every single drop of water in our plants and township. We have been constructing rainwater harvesting wells every year to collect rainwater and contribute in recharging the ground water table.



### Impact on Ground Water due to our Mining Operation

Most of our operational mining plants are in Odisha and Jharkhand. The water stress in these regions is between high and extremely high, which makes it a priority for us to preserve the ground water level.



<sup>1</sup><https://www.un.org/en/sections/issues-depth/water/>



## Our Approach to Water Management

Six key steps form the requirements of the Aditya Birla Group's framework documents – water stewardship policy, technical standard and guidance notes. The standard is based on the approach of the Alliance for Water Stewardship (AWS) standard. It shows the actions, criteria and indicators required to manage water at the site level and how water management should be stewarded beyond the boundaries of site.



We have shared the following guidance with our businesses:

- » Water Recycling and Reuse: To assist managers in identifying opportunities for designing and implementing steps towards integrated management through recycling and reuse of water
- » Rainwater Harvesting and Artificial Aquifer Recharge: To help in identifying opportunities for and designing and implementing harvesting systems, often with expert help
- » Source Vulnerability Assessment: To present a step-wise approach to assessing vulnerability of a sites water source and to help identify actions for water source protection planning

Another important aspect of water is sanitation and EMIL works closely with all its facilities to ensure the same.



## Case Study:

### Surface runoff management in iron ore business - Koira Mines

Water harvesting includes the following steps:

- » Hydrogeological studies
- » Engineering inventions
- » Collection and storage of rainwater
- » Capturing runoff from local catchments
- » Conserving water through watershed management

#### Viability at Koira iron ore mines

- » Readily available mining area with hillock terrain favouring rain water harvesting
- » Vast catchment surroundings with suitable topography to create ephemeral drains to divert the rain water
- » Storage pond created at bottom bench to facilitate storage of the surface runoff

#### Catchment Area Segmentation & Run-Off Calculation

- » The catchment area comprises of many sub water sheds which will contribute a good amount of runoff, so only the mining area water shed was considered for the proposed rain water harvesting.
- » The mine area has been divided into 17 zones based on the existing natural drainage pattern and land use pattern.
- » From the study it is evident that 9.47 lakh m<sup>3</sup> and 9.81 lakh m<sup>3</sup> of rain water for CN80 and 90 can be harvested from the mine area alone.
- » Based on the volume of rain water in case of heavy fall (with 150 mm rainfall in a day), it is assessed that 00.78 lakh and 1.01 lakh m<sup>3</sup> rainwater can be harvested.



*Storage cum percolation tanks at Koira Mine*



## Business Wise Water Usage

Business Unit	Source
PMPL Plant	Rainwater harvesting has been designed since the planning phase itself in the PMPL. A reservoir having holding capacity of 212250 m <sup>3</sup> has been constructed to store rainwater. The rainwater and surface runoff water of the plant area during the rainy season are being/will be collected in the reservoir for further use. The reservoir serves the dual purpose of storage and ground water recharge. Furthermore, roof top rainwater harvesting will get implemented for enhanced rainwater collection. Reservoir water is being used for water sprinkling inside the plant area. There are further plans of constructing a roof top rainwater harvesting reservoir.

### Way Forward

A company's water footprint can be seen in four key areas of its value chain: raw materials, suppliers, direct operations, and product use. Hence, it becomes necessary to reduce water usage beyond the boundary of the production and across the value chain. EMIL echoes the Aditya Birla Group value of water stewardship and is enhancing its technological efficiency to reduce water dependency. EMIL also focusses on managing its effluent and waste which is discussed deeply in the following section.



*Rain water harvesting & water conservation pond within Koira Mine. Capacity 158000 cum.*

## Minimizing Wastes and Effluents

As a part of the Aditya Birla Group, EMIL shares the same ethos, that a sustainable world necessitates building sustainable businesses. Such businesses must operate successfully within the progressively tougher legal standards and tighter resource constraints that will become a reality over time. Therefore, EMIL strives to reduce the waste generation quantity and recycles as much as possible to release the planet from the burden of carrying waste. The waste generated from the office can majorly be classified as hazardous and

non-hazardous waste. Effluent treatment is another key area that EMIL focusses on. We try to cause minimum harm and try to ensure that no effluent leaves our unit untreated.

One of our main aims is to maximize our usage of resources to ensure that we don't create any additional burden for the planet. Our NFA business is going a step ahead and using the waste of another industry in its production.





### Industry Symbiosis to reduce Waste



The principle behind “industrial symbiosis” is quite simple; instead of being landfilled or eliminated via incineration, wastes generated by an industrial process are redirected for reuse as a ‘new’ input into another process by one or more other companies, providing a mutual benefit or “symbiosis”. It has been applied worldwide with recognised environmental, economic and social benefits.

EMIL’s NFA business has taken a very similar approach of procuring Vanadium Pentoxide needed for the production of Ferro Vanadium from the waste generated from aluminium industry. This is a great example of how one industry’s waste can be a raw material for another, leading to environmental advantages like conserving virgin minerals and land, reducing air emissions, while simultaneously reducing costs. Over the past years, NFA has further invested in intensive R&D efforts to identify alternate materials and further reduce their emission and wastage levels.

## Waste Generation Portfolio

On account of our production activities we generate large quantity of overburden which we backfill during progressive mine closure. Almost 99.9% of our non hazardous waste is overburden. Other waste categories include organic waste, biomedical waste and hazardous waste. We have been making consistent efforts to apply the waste management hierarchy to all our waste. This is meant to reduce the quantity of waste produced through our operations, by following techniques to reuse and recycle generated waste

in an environmentally friendly manner. For EMIL, hazardous waste is generally from the HSD drum, burnt oil, adhesive residue etc, while all other waste generated forms non-hazardous waste (almost all the non-hazardous waste in mining is overburden which is backfilled and is an integral part of our progressive mine closure plan). In the metal and mining sector, proper monitoring and elimination of waste is of utmost importance to maintain the health and safety of the surrounding areas.

### Waste Generated in Iron Ore, Coal Mining, Pro Mineral, and NFA Business

#### Initiatives Taken by BCML and RCML to Reduce Waste

- » RCML and BCML have a streamlined process to reduce material waste. The e-waste is disposed to SPCB authorised collection centres
- » Buyback policy is being practised for electronic items with suppliers

#### Initiative to Tackle Non-Hazardous Waste in PMPL Business

- » 12.536 Ha area within the plant has been allotted for dumping of rejects generated during beneficiation process
- » The rejects are stacked in the earmarked dump site only, taking all adequate environment management procedures measures into account.
- » The reject dump is compacted and conditioned at regular intervals to avoid any sort of fugitive emission.

#### Treatment of Hazardous Waste in NFA

- » In NFA, the unit has different types of waste generated during the chemical process and the ferro alloy process. The hazardous waste generated in the V sludge process and ETP process is separately stored in a storage shed. This hazardous waste is then sent to authorized TSDF landfill disposal site for final disposal (BEIL TSDF landfill site, Dahej).



## Effluent Treatment in EMIL

Furthering our efforts towards environmental stewardship, we have adopted a strategized approach of effluent discharge at our sites. To ensure that water quality parameters such as pH, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), colour, fluorides and Total Soluble Solids (TSS) are kept within permissible limits, we monitor our waste quality on a regular basis.

All our operating units are Zero Liquid Discharge (ZLD).

### Case Study: Zero Liquid Discharge at EMIL

The mining facilities under EMIL, that is, BCML, RCML and iron ore at Koira Mines, strictly follow the principles of ZLD. ZLD is basically an engineering approach to water treatment where all water is recovered, and contaminants are reduced to solid waste. While many water treatment processes attempt to maximize recovery of freshwater and minimize waste, ZLD is the most demanding target since the

cost and challenges of recovery increase as the wastewater gets more concentrated. Salinity, scaling compounds, and organics all increase in concentration, which adds costs associated with managing these increases. ZLD is achieved by stringing together water treatment technology that can treat wastewater as the contaminants are concentrated.

Being in the mining industry for so many years, we understand that it is our prime responsibility to take care of the biodiversity that encircles our unit. We have undertaken several initiatives which is detailed out in next section.



Gabion Structures

### Caring for the Biodiversity

A healthy society requires a healthy planet. At the Aditya Birla Group, we believe that the environment is a key stakeholder and there is an urgent need to conserve and restore the balance of nature. Therefore, biodiversity management is an important area of engagement for all our businesses. EMIL's approach to biodiversity is aligned with the ABG Sustainability Vision, which was launched in 2012. It states our commitment to becoming the leading Indian conglomerate for sustainable business practices across our global operations. Environmental stewardship is an integral component of our future-ready vision. Since 2016, we have taken our biodiversity focus to a higher level by incorporating it in our sustainable plan of action.

Our governance of biodiversity is based on our Group-wide Corporate Biodiversity Policy on the 'No Net Loss' approach. No Net Loss calls for negative biodiversity impact from projects to be balanced by biodiversity gains through compensation measures. Our



biodiversity policy has established technical standards and guidance notes that align our operations with this approach.

All the new projects that have been done post-2016 have been in compliance with the Group biodiversity policy over and above the central and state compliance. While we do our best to ensure that we do minimal harm to our planet during our operation, it is our vast number of employees who help us in keeping our commitment. Therefore, a proper system enabling a progressive work culture to become quintessential. EMIL has a strong focus that ensures employees have a workspace to look forward to. This can be seen in detail in the next section.

## Mine Reclamation and Afforestation

Mine reclamation is an integral part of the mineral development process. It is designed to restore to an acceptable state the physical, chemical and biological quality of land and water regimes disturbed by mining. Our inhouse "Plan for Mine Reclamation" has been designed by the Essel Management. It includes the best management practices for surface mine reclamation. It also provides communities with greater certainty regarding sustainable environmental practices with respect to reclamation of degraded land.

## Objective of Land reclamation

The overall objective of a reclamation plan is to produce a landscape that is safe, stable and compatible with the surrounding landscape and final land use. Moreover, is necessary to reclaim the land affected by mining due to following reasons:

- » To put the land into productive use like agriculture, forestry or recreational purposes.
- » To check erosion from dump leading to destruction of water sheds and siltation of water bodies.
- » Accumulation of huge quantity of water in worked out pits may pose a threat to life and property.
- » To combat adverse visual impact.

We recognize that each mine site has unique characteristics, there are principles that are applicable to all surface mining operations and serve as the foundation for planning and implementing reclamation plans for our recently closed open cast mines in Jilling Langalota Iron & Manganese Mines and Kasia Iron mines. Similarly, the mine reclamation and afforestation process is also implemented in a continuous, methodical and progressive manner in our existing mining operations in Koira iron mines, BCML and RCML. The following case study exemplifies one of our numerous biodiversity restoration initiatives.

## Case Study:

### Mine reclamation in Koira Mines

A major part of the mine area was devoid of topsoil. The topsoil was removed and preserved for use in the afforestation activities. It was difficult to separate and preserve this small quantity of top soil from the surrounding hard rocks and boulders during mechanized mining operations. Hence, the excavated topsoil, wherever recovered, was utilized for tree plantation in mine lease area. We purchased topsoil and stored it for utilization for plantation purpose at the mine site.

The concurrent reclamation, as envisaged in the Progressive Mine Closure Plan approved by the

Indian Bureau of Mines, was executed adeptly. We stabilized and reshaped the overburden dumps by terracing. The entire area of dead overburden dump were covered under block plantation. Agave plantation was done along the toe of dumps. The slope and top of dumps as well as the area covering the barren area over 7.00 Ha. were covered with grass seeding. The areas falling under safety zone and reclamation were covered with plantation of species like Mahaneem, Babool, Sisam, Gamhar, Karanj, Teak, Chakunda, Acacia and other varieties for filling gaps.



*Reclamation under progress in Quarry No-6, Koira Mine*



*Rehabilitation of Dumps, Koira Mine*



# Employee Welfare





# Employee Welfare

Our employees are the key to our accelerated long-term success in being a market leader in the mining and minerals sector. As a signatory of UNGC, EMIL strives for the protection of human rights and gives importance to overall employee growth. Our key focus is on inclusiveness, employee health and safety and their over-all well-being, so that we can boast of being one of the safest places to work. Going deeper into this chapter we showcase our policies, people, training and various engagement activities conducted during the current financial year.

## Our Approach

We trust that people who work for us are our greatest asset. A skilled, diversified, experienced, and highly loyal workforce has always been the source of our business strength. As a trusted industry employer, our focus is to attract multiple talented people by providing challenging opportunities and developing employee-friendly workplaces with ease of accessibility to the management. In addition, EMIL guarantees equal opportunities

and at the same time promotes growth through our various integrated learning and development programmes. The equitability in our approach enhances the leadership skills of our people. We help in creating a career that is both personally rewarding and professionally enriching. The next section discusses various policy we follow which provide a roadmap for our day-to-day operations.





## Our Policies

### Human Rights Policy



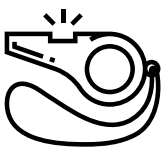
It expresses our commitment to respect human rights standards.

### Security Policy



The policy extends our commitment to provide leadership and effective security management to ensure a secure work environment for all our employees, contractors and lawfully invited visitors, and to protect our assets.

### Whistle blower policy



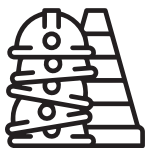
The policy seeks to support our employees, channel partners and vendors to report deviations from key management policies and report any non-compliance and wrong practices like unethical behaviour, fraud etc.

### Health Policy



The policy seeks to prevent occupational diseases and protect the health and wellbeing of our employees, contractor employees, agency staff, visitors, local communities and society at large.

### Safety Policy



We endeavour to continually improve safety practices, performance and protect our employees, including contractors, business partners, service providers, visitors and society at large from any harm.



## Our People

In a rapidly changing, disruptive and highly competitive environment, it is our human resource that makes EMIL exceptional, both in driving best in the industry performance as well as in enhancing our reputational capital. Our people are embedded with values that help them in working with commitment and comprehension.



### Valuing Employees

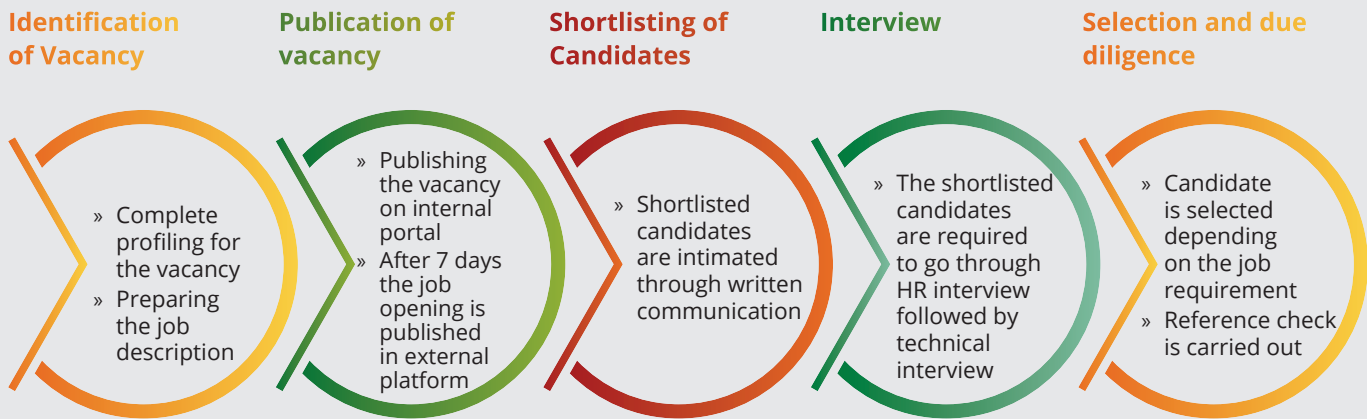
At EMIL, we hire and develop talent aligned with our company's underlying values. We believe in engaging with our people to earn their trust and connect them to our shared values. Our people are an essence to our business and its success. To motivate them, we recognise their daily endeavours every day for smooth functioning of the business. We never hesitate to award them for their excellence, hard work and continued effort for achieving extraordinary deliverables. To reward them, the Group has introduced the Chairman's Excellence Award for remarkable performance. The employees who took initiatives beyond the call of

duty, provided out-of-the box ideas which helped in increasing productivity and who worked to create a difference are recognised by the highest award for their contribution. Their work etiquettes, ideas and performances are beyond expectation and they truly demonstrated living and championing organizational values. As a token of appreciation for their performance, they get an opportunity to enhance their knowledge by learning through instructors of world-renowned universities such as Harvard Business School and Ross School of Business to name a few. Our awardees are an inspiration to our existing and new employees.

## Talent Hiring and Exits

Finding the right talent is key to the mining industry. In this ever-changing world, where innovation and technology play an important role in changing mining landscape, unearthing and retaining key talent is important. We follow the strong foundation of Aditya Birla Group policies for internal and external hiring. The Group's talent management policy captures all the procedures to be followed, starting from pre-interview to on-boarding of candidates. Aditya Birla Group's hiring policy is known as 'Opportunity at ABG'. In case any vacancy arises, as a Group policy, we give the first opportunity to our internal employees to take up higher roles and responsibilities. As a practice, all jobs are posted internally for the first seven days for our employees to take advantage of it.

The vacancy is circulated externally only after seven days, if we are unable to fetch perfect talent for the position internally. We also take care of our existing talents through various policies and initiatives. Our existing talent enjoys the preference of having an internal transfer option, which they access through our Poornata portal. We believe in motivating our people by providing them with ample opportunities to grow and succeed. For external hiring, we have associations with various engineering and management colleges and recruitment agencies and also encourage our employees for referrals. The following illustration summarizes our hiring process.






At EMIL, we have a talent retention system in place and the risk of employee attrition is mapped. To minimize employee attrition, high performance employees are retained through talent management procedures as per the policy of the Aditya Birla Group, which transcends down to company, business and unit levels. We believe that employee retention is one of the keys to success.




Along with our talent retention process, we are also well known for taking good care of our employees by providing various benefits. We not only provide benefits to our employees that are as per the law, we go beyond. Some of the benefits provided are discussed in the next section.

### Benefits provided to full time employees

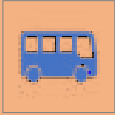

We, at EMIL, never fail to provide ample benefits to our employees for safeguarding them and their families. We adhere to Indian rules and regulations of Payment of Employees’ State Insurance Act, 1948; Gratuity Act, 1972; Payment of Bonus Act, 1965; Employees’ Provident Funds & Miscellaneous Provisions



Act, 1952; Employees’ Pension Scheme, 1995, etc. We believe employee motivation directly correlates with employee performance. We monitor and review their performance, which helps in deciding the gaps, training and subsequent promotion of high performing employees.

Benefits	Permanent Employees
 Life Insurance	Yes
 Health care	Yes
 Disability	Yes

Benefits	Permanent Employees
 Medical Insurance	Yes
 Parental leave	Yes
 Retirement Provision	Yes



Benefits	Permanent Employees
 Transportation	Yes
 Housing	Yes

Benefits	Permanent Employees
 Provident Fund	Yes
 Gratuity and other benefits	Yes

### Performance and career development review

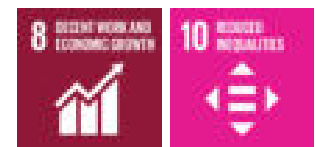
At EMIL, we have a transparent and accountable employee performance review and appraisal system. Performance evaluation is an ongoing two-way process of communication between a supervisor and an employee that occurs throughout the year. The communication process includes clarifying expectations, setting objectives, identifying goals and providing feedback. On Poornata, our performance management portal, we have a well-defined performance evaluation system which is in line with our Aditya Birla Group HR and talent pool guidelines. Employees performance is evaluated both on half yearly and annual basis. Our various initiatives like 'Sampark', 'Fit for Future' and 'Conversation that Count' help in enhancing the skills of our employees, which in turn results in their overall development and ensures access to guidance, motivation and growth to the employees.

We have a 'Talent Pool Management Policy' which has been well entrenched over the years and has been embraced by leaders, managers and employees. This policy document articulates all facets of talent

management at EMIL and provides a common understanding. Along with talent management, we constantly strive to inculcate an inclusive approach through organizing events, trainings, picnics and many more which are discussed in next section.



## Employee Engagement



Being inclusive and accessible are our key focus areas. Our system encourages our employees to discuss any issues related to work with their supervisors or immediate managers. Continuous guidance and monitoring from supervisors helps in minimizing the impacts on overall operations and outputs. We ensure that we create a work environment where seniors are ready to help the employees and redress any issue.



## Employee Engagement Programme



### Comex Exercise

At EMIL, we conduct a quarterly open meeting of all employees. The meeting is scheduled with all senior management which provides a platform to discuss all the issues pertaining to work. It provides a platform to employees to interact with senior management to exchange ideas and solutions on any existing topic or issue.



### Value Forum

A value forum provides a platform for senior management and all employee to discuss topics like value dilemma, value violation and value temptation. The meeting is conducted on quarterly basis.



### Birthdays celebration

The employees of EMIL take pride by participating in the initiative of planting a tree on their birthdays. Our stems are rooted to the environment and the society where we operate and hence this initiative develops a sense of responsibility in us towards our environment.



### Festival celebration

At EMIL, we celebrate all the festivals like Vishwakarma puja, Durga puja at all our units. The celebrations bring more spirituality to our workplace.



### Meet Your HR

Our 'Meet Your HR' initiative is carried out on a monthly basis. A monthly meeting is conducted between HR of a department and respective departments colleagues to understand their issues and working on addressing them.



### Sampark

'Sampark' is a skip level meeting wherein our employees meet with their skip manager once in 6 months to discuss about their career development.



### Various meets

Every year, we organise various meets and celebrate various important days like sports meet, marketing meet, value week, family picnic, women's day celebration and many more. Due to the pandemic this year, some of the activities were not being conducted this year.



### Gyanantaran

Our 'Gyanantaran' initiative helps us to transfer tacit knowledge of employee to others.



### Mindfulness circle

We believe in emotional and mental well-being of our employees. Our mindfulness circle initiative helps our employees to enhance emotional stability.



### Sahyog

At EMIL, the 'Sahyog' initiative extend helping hand to our employees to get relocated.



Our various initiatives help our employees know each other better and to create a workplace filled with mutual trust which enhances teamwork. We conduct employee satisfaction surveys to understand their satisfaction level, the details of which are discussed in the next section.



## Case Study: Employee Satisfaction Survey

### Introduction

We know that satisfied employees tend to perform better and help in increasing the revenues for the organization directly or indirectly. It is very important for an organization to know how happy and satisfied their employees are. At EMIL, we believe our employees as our greatest asset and conduct 'TEAM VIBES' survey to understand our employee's satisfaction at workplace.

### Our Approach to conduct the survey

We conduct the survey through 'TEAM VIBES'. The TEAM VIBES survey provides opportunity to every employee to share their workplace experience. The survey is conducted by third party.

### Results

This result of the survey helps in identifying the key focus areas of improvement and high performing areas. This helps in creating an action plan, on how to work on the lagging areas and make the environment more friendly for the employees. In our Noble-Ferro Alloys unit 96% of the total employees participated in 2019 Vibes survey

### Describe the focus areas

Some of the focus areas for the survey includes:

- » Ethics
- » Employee Engagement
- » Teamwork
- » Innovation
- » Employee experience
- » Communication
- » Leadership
- » Performance management





## The NFA story of Employee Participation

Employee satisfaction survey acknowledges the satisfaction of employees related to workplace, growth and other facilities, which determines the overall satisfaction level. We at NFA, Vapi unit are very particular about the survey. We conduct the survey in every two years. In 2019, 96% of our employee's participated in the VIBES survey. We witnessed a positive score change in areas like on-boarding, training, attracting and prepare for change. We also found agility, collaboration and recognition as our focus area.

# 100%

Feel Proud to be part of Aditya Birla Group

# 100%

Believes it is good place to work

# 93%

Believes that Business is socially and environmentally responsible

# 93%

Feels opinions are counted

# 96%

Continue to work with Aditya Birla Group for more than 2 years

# 85%

Feels their career goals are met with organization

# 85%

Feel they are employable beyond Aditya Birla Group

Employee engagement is key to enhancing employee productivity at workplace which not only motivates the workforce but also encourages them to pursue their passion and cherish success as a team. We are committed in attaining a workplace which is inclusive and free from any discrimination. The following section will showcase our initiatives in attaining a diverse work environment.



## Diversity and Inclusion



We provide equal opportunities to all our employees irrespective of their caste, creed, gender or religion. Through this we encourage a culture of diversity and inclusion in our workplace. As a part of the bigger umbrella, we follow the Aditya Birla Group's 'Code of Conduct policy' which fulfils the need for inclusiveness and a diverse culture. The policy forms a major part in the training session for a new joiner. We ensure that our values of diversity and inclusion are inculcated by each employee from the very start of their journey with us. We encourage women employees to actively take part in the decision-making process and provide them with various leadership trainings. For ensuring safety of women in the workplace, all our units and offices have an Internal Complaint Committee (ICC) under Prevention of Sexual Harassment (POSH) guidelines that ensures a safe environment to work and contribute. The committee includes the

Chairperson and other members. The committee consists of 50% women members, one legal advisor and one representative from an NGO. The committee gets dissolved after three years from the date of formation. The objective of this committee is to provide an effective complaint redressal mechanism at the unit level against any sexual misconduct. We also have a policy on sexual harassment which is being uniformly implemented at business as well as unit levels and covers every employee. We follow a zero-tolerance policy against any workplace harassment.

All our new employees go through these policy trainings on our online learning platform Gyanodaya. We can proudly say that 100% of our employees have completed the POSH policy training during the current reporting period.





## Training and Development



We focus on the all-round development of our employees. We tend to create a continuous and sustained learning culture to provide holistic learning opportunities to all employees through diverse learning mediums. Our trainings assure that they address all employee aspirations as well as fulfil our organizational goals. Our main objective is to upgrade and develop technical and behavioural competencies, enable a robust and skilled talent pipeline by facilitating future readiness, and strengthen the leadership pipeline and succession planning.

Our process commences with identifying training needs through the 'Training Need Identification' (TNI) form. This is an integral part of our annual performance management system. Our process commences with Identification of Training needs through 'Training Need identification' (TNI) form. This forms an integral part of our annual performance management system. The training planner conducts interviews with top administration in the business, evaluates "My Development Plan" for employees and consults with business and unit heads to assess training needs

and subsequently develops the training calendar. We encourage our managers to have fruitful discussions with employees on their learning path, which helps them in identifying their learning needs and prepares them for future roles by imbibing the required skills. The three ways of training need identification are - career aspirations of employees, identification of performance gaps and discussion with the manager.

After the training needs are identified, the training calendar is designed in a manner that ensures all training needs are addressed. Once approved, the training calendar is implemented all along the year. As mining is a technology centric sector, we focus on developing the technical skills of our employees. We organize several departmental trainings and workshops which are headed by sectoral experts from various parts of the country. We believe in cross-functional training of our employees, especially of new joiners, so that they can deliberate on their area of interest. EMIL deploys the best equipment and technologies available globally and ensures that all our employees acquire the prerequisite skill sets to perform effectively and consistently.

### Training Classification

- » Need based training programmes improve behavioural and skill related attributes that is specific to the job like communication and creativity and innovation and business writing skills and technical skills
- » Curriculum based training programmes develop the knowledge and skills of people engaged in specific areas to the desired level on distribution technology and material management to further enhance their effectiveness and work relevance
- » Specific interventions programme address priority areas of the organization like safety which is quintessential for mining and processing units through classroom trainings and mock drills
- » Leadership development programmes enhance the leadership generally target the mid-management group and aims to enhance the leadership potential that drives organizational excellence and maximum efficacy.

Our training institute Gyanodaya plays a pivotal role in assuring that our senior management receives the adequate training for leading our company. Gyanodaya comes from two words: 'gyana' which means knowledge and 'udaya' which means dawn. In accordance with the Aditya Birla Group's vision and mission, senior leaders are provided with high quality learning and leadership solutions through collaboration with several renowned world class institutes to provide quality programmes for group leaders across various businesses. The list showcases broad categories of training that our Learning and Development team offers to our employees.



## Training Categories

### Technical Training

An array of generic as well as departmental trainings and workshops are organized to impart knowledge to employees regarding the latest developments in the industry with respect to technology, processes, global market scenarios and others. Subject matter experts are invited from all around the world to conduct certain sessions.

### Behavioural Training

Behavioural training is a crucial factor for performance and success. The trainings are scheduled for employees across all levels to equip them with the right skills of teamwork, leadership, planning, decision-making and communication.

### Induction Training Program

All our new employees are introduced to the legacy, vision, mission and core strategies of EMIL and the Aditya Birla Group in the first training session. Their roles and responsibilities are explained to them along with giving an overview of their working areas. Our employees are required to undergo all mandatory training on our policies and procedures.

We measure the impact of the training programmes as a part of the feedback process on our EMS framework and different types of pre- and post-evaluations. A third party is engaged to assess the ability capacity of our senior leadership team.

Along with ensuring our workplace culture to be the best in the world through various trainings, we also ensure that all our employees are treated fairly, and we adhere to human rights standards at par with global frameworks. At EMIL, safeguarding human rights is fundamental to enhancing employee engagement and satisfaction. We are signatories to UNGC principles and also follow Aditya Birla Group policies on human rights, the details of which are explained briefly in our next section.

## Human Rights

EMIL follows Aditya Birla Group level policy on human rights. All enactments and regulations for supporting human rights are strictly followed in letter and spirit. Our beliefs lie in respecting the rights of our people. We believe in providing equal opportunity employment and spreading a work environment liberated from any types of discrimination. At EMIL, we not only work on protection of minimum rate of wages, the company in fact also believes in paying more than the specified rate of bonus and wages with adherence to hours of work, interval of rests and highly subsidised food and accommodation. The following table mentions the various human rights followed by EMIL and its subsidiaries:





### Working Hours fair Wages

We follow Central/State level policies with respect to minimum wage. All our employees are provided fair and equal compensation based on skills and experience. We follow an eight hours working policy as per Mines Act, 1952 with rest intervals. Wage documentation for each employee is maintained regularly. All employees are entitled to weekly offs and holidays based on local customs and days of national and international significance and as per Mines Act, 1952.



### No Forced Labour

EMIL ensures no forced labour is maintained in all our units. We strictly prohibit employee recruitment based on individual bond, debt or obligations towards the Company or its representatives.



### Non- Discrimination

All our units are free from any type of biases and do not entertain any discrimination based on caste, race, religion or gender as prescribed under Indian regulations.



### Freedom of Collective Bargaining

We have long term union agreements. We follow collective bargaining under the guidance of government policy in our Iron Ore and Coal Mining businesses.



### No Child Labour

All units of EMIL ensure zero tolerance towards child labour and the minimum age standard is set at 18 years for employment opportunities. We scrutinize all the essential documents and verify age during the onboarding process of a new employee.



We have departments at the unit level, to monitor human rights issues. All the employees, including contractual employees, are provided with the numbers and e-mail IDs of the person responsible for human rights issue. Moreover, the mine inspector and labour enforcement officer conduct regular visits to the sites to ensure that all norms are followed.

Echoing the values imbibed by the Aditya Birla Group, EMIL endeavours to have a conscious hiring strategy that aims for diversification at all levels. EMIL endeavours to create a progressive and inclusive workspace of the future where every employee feels motivated and is rewarded for his or her efforts.



## Occupational Health and Safety (OHS)

Health and safety are an important element of any healthy workplace. We, at EMIL, are committed to safeguarding the health and safety of all employees and ensuring a safe working environment for all our employees and contract workers. Our primary focus is to create a work environment that is not only safe and secure, but we also maintain best in the country health and hygiene parameters in our operational areas. We believe that every accident is preventable, and our robust organizational safety culture assures that we adhere to the best in industry safety practices. Our safety tools and processes are always in place to effectively control health and safety risks. We ensure that our objective of “zero harm” is achieved through our best OHS practices. We believe that our responsibility is to provide and maintain a safe and healthy working environment that has an impact not only on our people but also on the society at large.

## Management Approach

We strive to provide a distinct health and safety organization structure that helps in implementing the framework in the true spirit. We follow the Aditya Birla Group’s policies, sustainability standards and frameworks. The health and safety management system is an integral part of the framework. We are proud that most of our operational facilities are certified with ISO 45001:2018 and other applicable international OHS management systems. By following these certifications, we demonstrate our commitment to OHS management as well as implementation of robust measures in this area. To strengthen our commitments, we have a business and unit safety committee in place. Our safety and environment department conducts monitoring exercises on a regular basis. EMIL’s line managers lead the effort in ensuring the health and safety of people involved with our business operations and providing safe workplaces. Similarly, our self-assessment processes (SAQ’s), Quantitative Exposure Assessments (QNEA) and Qualitative Exposure Assessments (QLEA) enable us to carry out a need and gap assessment study, and thus assist us to plan and implement robust OHS management strategies.

## Case Study: EMIL’s Commitment to WASH Pledge

One of the UN SDGs is to achieve universal access to safe drinking water, sanitation and hygiene (WASH) by 2030. At present, an estimated 1.8 billion people do not have access to safe drinking water and 4.1 billion lack adequate sanitation. There is a compelling and clear economic argument for businesses to demonstrate leadership by addressing this situation. Globally, many businesses have operations, employees, contractors and customers in countries lacking access to these provisions.

We know that the impacts of poor hygiene, sanitation and the lack of access to potable water are related to safety, productivity and employee wellbeing. A healthy workforce with access to “safe water, sanitation and hygiene at the workplace” is a key theme of the World Business Council for Sustainable Development (WBCSD). To demonstrate leadership and its

commitment to this global goal, the Aditya Birla Group leadership signed the WASH Pledge in January 2015. Using our self-assessment system, we have tracked compliance by site and by business against each of the Pledge requirements. A multi-layer monitoring of progress was designed to ensure the implementation process was infallible. Senior personnel were responsible to review the data and evidence uploaded and guidance notes and training modules were developed as a resource for site personnel involved in the implementation programme. Overall, the EMIL compliance level to the WASH Pledge is over 99%, which has surpassed our initial target adopted in January 2015. Every site has proper action plans on which it implements to ensure maximum compliance.



Our management team continuously monitors and evaluates that all jobs are carried out in a systematic procedure. Standard Operating Procedures (SOPs) derived from safety policies are in place for each job function conducted within the operating boundary. Hazard Identification and Risk Assessments (HIRA) are undertaken for these activities, based on which risks are assessed and classified into low, medium and high categories. Subsequently, risk control and minimization measures are defined to bring down the risk index within the acceptable limit. The illustration showcases a few risks and mitigation measures identified throughout our unit business operation:



### Dust Safety

Regular water sprinkling is done on the haul roads. Coal cutting machines are equipped with water spraying system. It controls the coal dust emission at the source. A workman is deployed along with Personal Dust Sampler (PDS) to assess the dust concentration and ensure that necessary steps are taken to bring the dust concentration below permissible limits. Use of personal PPEs by mine workers is ensured.



### Noise safety

Equipment is deployed at distance which helps in reducing the noise level at a single location. Similarly our operator cabins and HEMM driver cabins are also noise proof. We also conduct noise analysis through noise intensity survey.



### Fire safety

All the HEMMs are equipped with automatic fire detection and suppression system. Additionally, mechanical fire extinguishers are kept in the HEMMs, which are available in the case of emergency. Firefighting persons are in place, equipped with proper training.



### Driving safety

Regular monitoring of driving safety is done by field supervisors. If any violation is observed, the operators are punished according to the level of violation. We ensure traffic rules are provided to them in regional languages and proper training is conducted for them.



### Dump safety

The dumps are regularly compacted using dozers. Proper benching is maintained as per the safety requirement. A few dumps are already covered with soil and brought up to the original ground level with plantation.



### Poor illumination at workplace

Erect and install light fittings provide illumination of prescribed standard.



### Working at height

We ensure a foreman and supervisors are deployed to plan, organize and monitor the operations during working at height. Regular training is imparted to persons concerned.



### Explosives and Blasting

Proper SOPs are framed and followed for the explosive's movements inside the mining area. The explosives vehicle is thoroughly inspected by the foreman in charge. The blasting overman personally searches for possession of any materials that could be harmful, such as mobile phones, match box, cigarette or any smoking material. All applicable Directorate general of Mines Safety (DGMS) guidelines are followed.



### Electrical safety

We ensure that all electrical equipment are maintained as per SOP. Proper earthing and earth pits have been provided.



**Personal Protective Equipment Demonstration**

All our activities are classified into routine and non-routine jobs. We have a robust work safety permit system and conduct mandatory Job Safety Analysis(JSA) to integrate safety precautions and procedure into our already existing and well defined SOPs. This acts as a precursor for development of SWP (Safe Work Procedure). The Safe Work Procedures (SWPs) are designed by the respective line functions in consultation with the Safety Cell or respective safety department in place. Designated line function officers are assigned to approve these SWPs and ensure proper implementation of SWP through:

- » Release of work permits, as applicable, based on the derived SWPs.
- » Implement corrective and preventive action against safety observations.
- » Identification of gaps in SWP implementation through internal safety audit and implementation of corrective and preventive action by line functions department against the observations.
- » Adherence to the Safety Consequence Management Policy against serious violation of SWPs and incidents due to such violations.
- » Identification of training needs for employees for new processes or any alternate processes and subsequently conveying the training requirements to Capability Building Sub-Committee.

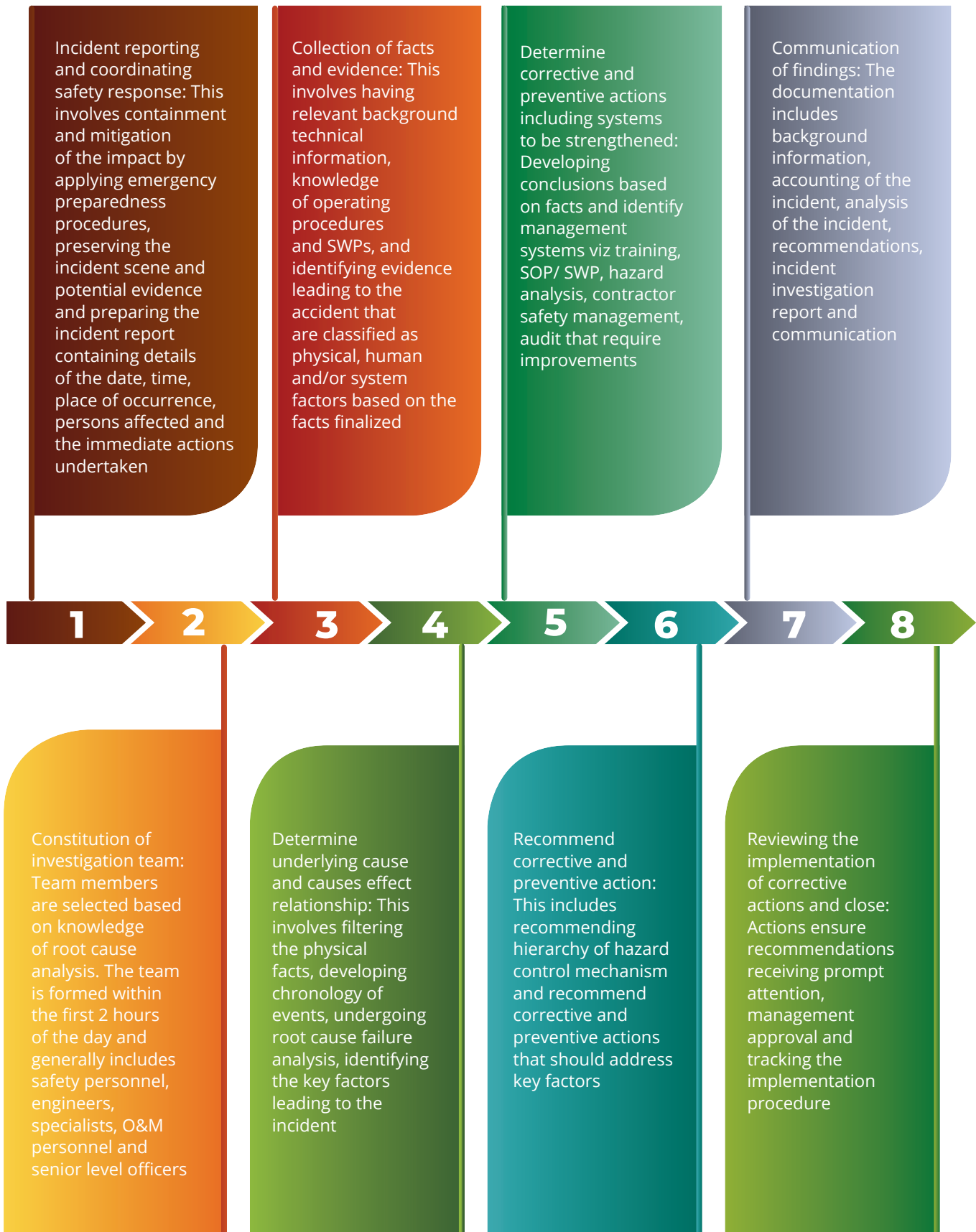
These policies and procedures provide guidance in implementing SWPs, promoting a safety culture and monitoring and controlling unsafe work conditions in the journey towards 'Zero Harm'. We have achieved 'Zero Harm' goal in all the mine working areas through implementation and continuous improvement, a self-

regulatory system of working, training and retraining to enhance job skills, multi-layered supervision and control, risk assessment of all jobs and implementation of a safety management system. Our robust safety approach and mechanisms help us in preventing health related risks. If an incident takes place, we find the root cause. Details of the process are discussed in the next section.

## Incident Investigation Process

We believe in the saying that precaution is better than cure. We monitor and review all the measures put in place to help control risk and prevent accidents from happening. As per Aditya Birla Group policy, all incidents are classified based on severity, impact and consequence into category 1 (lowest), category 2, category 3, category 4 and category 5 (highest). All incidents are reported in our in house cloud-based EHS management software ENABLON and senior management is informed accordingly. EMIL's 8- step process matrix for identifying the root cause of any incident is an essential part of our health and safety investigation process. This process not only helps in identifying the root cause of the incident, but also pre-emptively helps in identifying health and safety risks and strategizing plans to mitigate the same, which results in making the process more robust.







## TapRoot-Root Cause Analysis (RCA) system

We at EMIL use the TapRoot-RCA system for investigation of incidents by our trained employees. Starting from planning to sharing the solution for an incident, it helps us adopt a systematic approach to analyze the problem, determine the issue and causes of the incident, and provide corrective actions to avoid its recurrence:

- » Makes it easier to create the sketch of the incident as SnapCharT through drawings and diagrams by covering each activity, the conditions and the event high point as “what happened”.
- » Utilizes the well-designed worksheets and the safeguard analysis tool to identify the initiating error of the event as causal factors.
- » Each causal factor is analyzed through the patented root cause tree to find the root cause at the basic level and further.
- » After deriving the root causes, it helps develop the corrective actions in a smarter way through the corrective action helper tool by defining a three-layer mechanism.
- » Finally, the system generates a report in a presentable format referring to the ENABLON event ID for sharing across the business.

TapRoot™ 7-Step Major Investigation Process		
Phases	Steps	Tools
Plan	1. Plan Your Investigation	SnapCharT™ Snap Cause Tree™ SnapForms™
	2. Determine What Happened (Sequence of Events)	SnapCharT™ SnapForm™ Change Analysis
Investigate	3. Define Causal Factors	SnapCharT™ Safeguard Analysis
	4. Analyze each Causal Factor's Root Causes	Root Cause Tree™
	5. Analyze Each Root Cause's Generic Causes	Corrective Action Helper™
Fix	6. Develop Plan	Corrective Action Helper™ Safeguard Analysis SMARTER
	7. Present Report for Approval	SnapCharT™

The next reporting session discusses in detail the various health and safety trainings and the safety rules followed in EMIL.

## Health and Safety Trainings

The purpose of equipping our employees with proper training is to ensure that they have the competence of working on safety norms, processes and practices so that they perform jobs effectively while following all the safety compliances. The scope of training covers all categories of personnel (employees, contract workers and any other person engaged in the Company's job) across EMIL's various business verticals. The trainings are divided into classroom training, SOP training and on job training, and are provided to employees to create awareness and promote safety culture. The safety training process has the following steps:





### 1 Training Need Identification

Training needs are identified on the basis of legal requirements, need for improvement in safety knowledge and to sustain safety performance.

### 2 Determine Type of Training Needed

Type of training need is based on individual / organizational / safety cell / human resource recommendations and is focussed on improving safety performance.

### 3 Identifying Goals and Objectives

Clearly defined goals and objectives are communicated to employees to set the expectations.

### 4 Implementing the Training

Training is conducted by professionals with knowledge and expertise in the given subject area. Employees participate in the training process and to practice their skills / or knowledge.

### 5 Evaluation Training Programme

The training programme is evaluated by both the trainees and the instructors which help supervisors determine the amount of learning achieved and whether or not an employee's performance has improved on the job as a result.

### 6 Documentation

A data base is maintained with the names of participating employees, topic, duration, name of the training agency and trainer and type of training.

After the identification of training needs, required trainings are provided to the identified employees based on the outcome of the steps showcased above.





## Safety Trainings

At EMIL, generating awareness on safety-related risks associated with our operations is one of our key priorities. Trainings, being a key factor for identifying health and safety risks, are provided to all our employees and contract workers. Frequent and periodic training assures that not only are good health and safety practices implemented but also frequently communicated. Key training topics during the reporting period include emergency preparedness, first aid training, blasting operation, fire safety, working from height and many more.

### Our safety training topics



First Aid



Fire Safety



Near Miss Reporting and Safety Observations



Personal Protective Equipment



Emergency and Disaster Preparedness



Fall Protection



Confined space



Hot Work



Lock Out Tag Out and Permit System



Road and Vehicular Safety



Scaffolding



Machine Guarding



Electrical Safety



Hazardous Chemicals Management



Ergonomics



Drilling, charging and blasting



HEMM working



Lifting and Supporting



Permit to work



Welding work



Our training and quality measures ensure that our performance is in line with our commitments. Details of our safety performance are discussed in the next section of our report.

## Our Safety Performance

At EMIL, we make sure that all the lost time incidents are timely reported by the department concerned to the statutory authorities and other stakeholders concerned, including the top management. Our safety committee is set up in accordance with all regulatory guidelines. We ensure participation of both permanent and contract workers in the committee. We conduct a monthly meeting at unit level, which considers the safety issues that are reported to the department and are further escalated to the management to prepare a management plan.



We are proud to achieve zero Loss Time Injury (LTI) and zero Loss Time Injury Frequency Rate (LTIFR) in the current financial year. Our robust safety management system accompanied by the safety management plan and the safety precautions taken by our workers helped us achieve this.

### Way forward

Employees form the prime pillar of our operation and ensuring that they work in a place which considers all the measures to ensure their safety, is a prime objective. We strive to excel in our approach by imbibing globally recognised safety standards and a responsive and resilient OHS governance structure. We are proud to disclose that for the past 2 years we have 0 LTI. We constantly strive to reach our goal of zero harm, through both periodic internal and external audits and monthly evaluation of our performances

through submission of the Self-Assessment Questionnaire uploaded on our cloud-based platform for disclosure and review. Subsequently, we incorporate the amendments and develop strategic plans to mitigate the risk. In the future, we will continue to technologically and behaviourally enhance and upgrade ourselves to be at par with national and international standards. We go beyond compliance to enhance the safety and wellbeing of our employees.



**Strengthening  
our Communities**





# Strengthening our Communities

Community empowerment is defined as the activities undertaken by organizations with their stakeholders and partners with a specific aim to involve or empower communities around the periphery areas of operation. Today, corporates investing in socio-economic development activities are under increasing pressure to demonstrate the social impact created through their activities, in a language easily understood by different groups of stakeholders. For us in EMIL, reaching out to underserved communities is part of our DNA. We believe in the concept of trusteeship.

This entails transcending business interests and grappling with the “quality of life” challenges that the underserved communities face and working towards making a meaningful difference to them. Our vision is – “To actively contribute to the social and economic development of the communities in which we operate. In doing so to build a better, sustainable way of life for the weaker sections of society and raise the country’s human development index” (Mrs. Rajashree Birla, Chairperson, Aditya Birla Centre for Community Initiatives and Rural Development).

## Management Approach

Community service is an extremely important part of our strategy and is deep rooted in Aditya Birla Group’s philanthropic philosophy of actively contributing to the social and economic development of the areas that we operate in. For EMIL, the nature of our industry necessitates our presence in remote corners and diverse geographies. While operating in multiple locations and multicultural communities, we always respect the local communities and their culture. We abide by the following well-articulated and communicated policies to ensure that we create value in the communities we operate in.

We proactively engage with the community around us to understand their expectations and contribute

to enhance socio-economic development in these regions. This includes facilitating health, sanitation and hygiene programmes, and supporting in infrastructure development such as schools and medical facilities, in surrounding villages

For Corporate Social Responsibility (CSR), we have a well-defined policy, dedicated budget and a structured committee which oversees and approves all our CSR related activities and management. Our focus is on the all-round development of the communities around our operational areas. Our partners in development are government bodies, district authorities, village panchayats and the end beneficiaries - the villagers.

*School Bus facility at Koira Mine*







# CSR Strategy and Procedures



## Stakeholder Assessment

- Stakeholder identification involves the use of independency, responsibility, prioritization of diverse perspectives and alignment of community tensions to thematic areas defined by the CSR policy. The community programmes focus on vulnerable populations comprising of children, youth and women from the rural population of the project location.
- Different business units of EMIL regularly interact with government officials, local administrators, nongovernment agencies, and communities to identify the needs.



## Need Assessment

- EMIL carries out periodical need assessment of the stakeholders every two years through reputed and competent firms. Based on their findings, need assessment and suggestions, programme planning is done.



## Allocation of Budget

- Once the Annual Action Plan is detailed out, it is sent to the Board of Directors. The Board allocates budgets under each focus area. Once such plans are approved by the Board of Directors, they are implemented.



## Monitoring and Evaluation

- Each programme has defined targets, timelines and measurable indicators. Each business unit keeps a track of the Key Performance Indicators (KPIs) that are reported to the central CSR committee. Regular monitoring and evaluation are carried out through site visits and feedback of the community receiving those benefits.



## Impact Assessment

- EMIL often works with reputed third parties for conducting the impact assessment of the initiatives taken. The rating is done on the basis of KPIs and targets achieved through stakeholder feedback.



## Communication

- EMIL engages in constant dialogue with the community and collaboratively designs interventions to address concerns. The Company has a sound grievance redressal process, which involves systematically receiving, investigating, addressing and closing out complaints from affected communities in a timely, fair, transparent and consistent manner.




## Key Focus Areas

All projects are identified in consultation with the community in a participatory manner, by interacting with them and gauging their basic needs. We take recourse to the participatory rural appraisal mapping process. Subsequently, based on a consensus and in discussion with the village panchayats and other stakeholders, projects are prioritized. Based from this, the focus areas that have emerged are:




### Resettlement and Rehabilitation:

- » Preserving Cultural Heritage
- » Minimizing Impact on Community




### Sustainable Livelihood

- » Ensuring that we improve the standard of living for the people in the periphery of our operation
- » We include several agricultural and non-agricultural capacity building and training programmes




### Healthcare

- » Our initiatives in healthcare include immunization of children against several diseases
- » Eye camps
- » Healthcare campaigns and awareness sessions



### Education

- » Infrastructure development of schools
- » Providing students with educational amenities such as but not limited to stationary, uniforms and solar lamps
- » School enrolment programmes
- » Girl Child Education



### Infrastructure Development

- » Building roads, community centres etc
- » Building water enhancement facilities
- » Providing electrical supply
- » Installing solar panels in houses

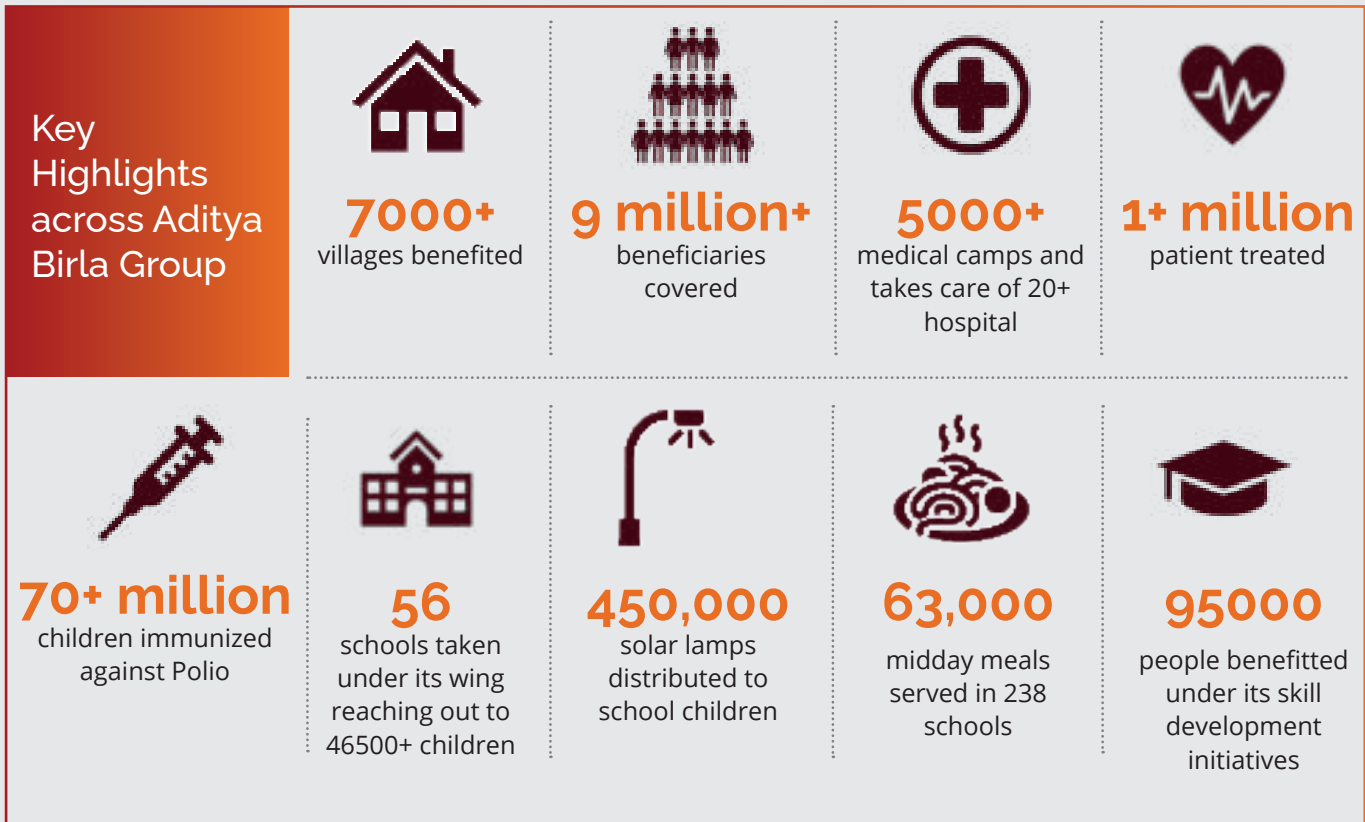


### Social Change

- » Awareness campaigns
- » Rural heritage maintenance
- » Investment in preserving rural culture and ethnicity



EMIL follows the principle of Aditya Birla Group that leads with an example in the space of corporate responsibility. Aditya Birla Group is one of the oldest business houses to have imbibed the culture of growing with the community. Similarly, EMIL being a part of ABG, strategically uses the budget in the interventions mentioned below.



## Focus Area: Resettlement and Rehabilitation



Mining is a business that requires land in a huge scale and for a long time. But EMIL develops the mining functionalities keeping in mind that the Company is not the prime custodian of the land. Therefore, to run a safe, responsible and profitable mine, it takes a long-term approach – planning and operating with the future in mind.

A proper rehabilitation programme is in place taking care of all the nitty-gritty involved in the resettlement process. When we begin exploration, long before our operations start, EMIL tries to work with local communities, including Indigenous Peoples, to

understand the physical, spiritual and cultural connection they have with the land. Functionalities are designed in a way to minimize any issue that might arise in the surrounding communities. In addition to this, EMIL also works with communities and tries to enhance their livelihood opportunities through CSR interventions.

EMIL has a very pragmatic approach towards enhancing livelihoods and some of their key programmes are discussed under sustainable livelihoods.



### Paddy Cultivation at Mines

Usage of land post the mining activities becomes a matter of concern and communities often suffer from having very limited ways in which they can use their land post the reclamation. RCML developed community-based paddy cultivation at mines in collaboration with several research institutes to ensure that the community will be able to utilize its land post-reclamation.

EMIL has a very pragmatic approach towards enhancing livelihood and some of their key programs are discussed in sustainable livelihoods.

## Focus Area: Sustainable Livelihood



One of the prime focus areas of our CSR activities is providing sustainable livelihoods to the local communities in order to uplift their living standards. This is achieved by enabling them to generate additional income via skill development programmes. We provide sustainable livelihood programmes to the local community such as but not limited to watershed development, formation of Self-Help Groups (SHGs)

for women empowerment, partnership with Industrial Training Institutes, vocational training through Aditya Birla Rural Technology Parks and agriculture development through better farmer focus. We have undertaken several initiatives under the following heads to bring economic prosperity in the lives of local communities.

*Inauguration of Tailoring Training Centre*





## Non-Farm and Skills-Based Income Generation Programme

We focus on vocational training of local communities and especially women of nearby villages through our skill development programmes, to help them gain economic independence and enable them to contribute to the family income.

To achieve this, we organized various capacity building courses in tailoring and handicraft to name a few. For

men, capacity building workshops in rural enterprise management and mechanical training were also conducted in Keojhar, Odisha. EMIL is designing several projects to uplift the standard of living in the nearby areas of our operation. EMIL also supports several SHGs to materialize their entrepreneurship ideas through a series of workshops in several business units.



Hastakala Centre

### Case Study: Livelihood Revival at Koira Mines

Around our operation in Koira mines, we aimed at helping farmers increase their land's productivity with the objective of increasing their income. A series of farmer support initiatives were conducted with the aim of providing material support, farm mechanisation and enhancement of irrigation facility. For rural communities, animal husbandry provides an alternate source of livelihood besides agriculture, and villagers extensively depend on it for a steady income. To avoid difficulties that farmers face while practicing animal husbandry, we identified some common and recurring problems and undertook the following activities:

- » Community Managed Shops
- » Goat & Poultry Rearing Centre



## Focus Area: Healthcare



EMIL ensures that it renders quality healthcare facilities to people living in areas near its operation, through hospital support, primary healthcare centres, immunization programmes such as a thrust on polio eradication, and healthcare for visually impaired and physically challenged.

Children are the future and healthy children are going to be the assets of tomorrow. With this vision, immunization camps are conducted in collaboration with government programmes with an intent to support the drives for eradication of polio, hepatitis B, diphtheria and tetanus. Several awareness

programmes are also designed throughout the year to ensure that pertinent health problems of the society get addressed. In FY 2020-21, we conducted numerous drives at Jilling, Joda and Barbil regions to stop the onset of dengue that were plaguing the region. Covid-19 was a disease that no one had foreseen. It brought the world to a standstill, highlighting the fragility of the healthcare system. As a group, ABG conducted several projects to ensure that rural healthcare is strengthened and the communities get the same facilities as in any urban centre.

### Our Covid-19 initiatives

#### Key initiatives taken by Aditya Birla Group:

- » Two ventilators for the hospital in Chandrapur, Maharashtra; one for the district government hospital at Sidhi, Madhya Pradesh
- » Reverse Osmosis system and Complete Blood Count (CBC) machine for the local hospital at Manawar in Madhya Pradesh
- » 200 beds for Covid-19 patients across Ujjain, Pune, Nagda, Hazaribagh, Solapur, Veraval, Rayagada and Kharach
- » Quarantine centres of 30 beds in Madhya Pradesh and 100 beds in Rajasthan
- » Rural quarantine centres at 55 locations
- » Ambulance services at 30 locations
- » Isolation wards in Maharashtra and Jharkhand
- » 1,585 medical PPE sets for health workers
- » Awareness camps, distribution of handbills, playing audio messages through mobile vans, displaying banners, door-to-door campaigns
- » Continued and pro-active engagement with local communities and other stakeholders of 1,204 villages and nearby urban centres
- » 1,30,000 sanitisers, soaps and disinfectants distributed to local communities across various manufacturing units
- » Village and community sanitisation measures reached over 2 million people in rural areas and urban slums

#### Key initiatives taken by EMIL:

- » Donation of Rs 63.1 lakh by RCML to the PM CARES Fund
- » 3,60,000 PPE kits distributed to local population
- » Covid Care Centre set up for Covid-19 patients at ECL Hospital, where RCML extended the support of installation of oxygen pipeline to 25 beds
- » Isolation wards in Jharkhand
- » Awareness programmes on sanitation



## Towards a clear Vision

One of the most necessary organs for any human being is eyes and eye treatments are often costly. Working in remote rural areas, EMIL is well aware of the socio-economic standards and demographics of the nearby areas. Therefore, the Company gives tremendous importance to ensuring that it helps people see the world. Several eye camps and awareness campaigns are conducted at several business units to ensure that people get properly checked for their eye health problems. Generally, many people neglect minor visionary difficulties due to high costs, which later amplify into bigger health issues. We have deployed numerous remote mobile healthcare units and collaborated with several healthcare centres to ensure that eye camps and campaigns are conducted seamlessly.



*Eye Check Up Camp*

## Education

Education is not just fundamental for personal, economic and social development of an individual, but imparting quality education also has a significant positive impact on the holistic growth of a nation. We at EMIL recognise this and have been focussing on empowering communities by spreading awareness about the importance of education and implementing various initiatives, right from computer literacy programmes and knowledge-based trainings to educational tours and infrastructural development of schools. Our endeavour is to spark the desire for learning and knowledge at every stage through formal schools, balwadis and anganwadis for elementary

education, quality primary education, girl child education and adult education programmes. EMIL understands that providing a conducive and child-friendly environment for learning and development is essential for ensuring 100% enrolment in schools and simultaneously achieving a lower dropout rate. This has been facilitated through various renovation and repair activities for government schools while upgrading existing infrastructure through development of libraries, drinking water facilities, benches and computer facilities in the vicinity of its several units. During FY 2020-21, EMIL's effort in different business units is mentioned below:





## Iron Ore Business: Buses of Hope

A very innovative solution was designed by the CSR experts in Koiria mines to ensure that no student is deprived of the college education they deserve. The iron ore unit has kept two buses to ensure that all college going students have access to the commute they deserve. These buses serve another purpose as well; they act as a mobile unit to transfer healthcare workers to the operational area and nearby villages.



## RCML: Digital Library at Ramakrishna Mission, Deogarh

Digital education is gaining enormous momentum and to ensure that students in every part get the same facility, RCML developed a digital library cum reference room at the Ramakrishna Mission, Deogarh. The library comprises of 40 computers, reference books, Closed Circuit Television (CCTV) arrangements, projector and fixtures and furniture required to ensure quality education.

## RCML: Construction of Classrooms at Shishu Mandir School

As a CSR initiative, RCML has undertaken construction work of three classrooms in Godda Shishu Mandir. This is in line with RCML's commitment to ensuring access to education of the community they serve.



## NFA: Employee Led Education Initiatives in Vapi

The Noble Ferro Alloy business in Vapi has adopted a village named Andhrapada, which is located in a remote area of Gujarat and is deprived of basic social and economic development. In last three years, at various occasions, several employees have visited the site as volunteers to teach the students of the village. This initiative coupled with several other activities has aided Andhrapada village in rising above its previous socioeconomic state.





## Social Change

The Financial Year 2020-21 was a year spent under the shadow of Covid-19. Nevertheless, we grew along with the community. We continued to generate economic value for our stakeholders and tirelessly worked towards achieving our financial targets. We proactively adapted to the prevailing market conditions, anticipated social risks and invested in pioneering initiatives. These efforts helped us keep our promise to the community, which is one of the pillars of business sustainability.

Our activities have an indirect economic impact on the people and society, so we contributed towards

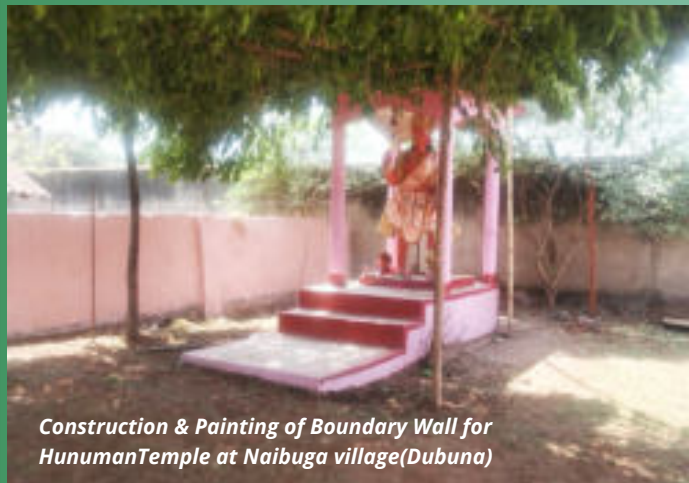
socioeconomic development through initiatives in the field of education, health, livelihood and infrastructure. We donated a sizeable amount to Covid-19 related projects in association with several implementation partners apart from conducting regular activities throughout the year. Education and awareness campaigns for local communities at regular intervals across various units was one of our key priorities. Our numerous initiatives are elaborated in the economic section.

### Renovation & Refurbishment

One of the major aspects of our corporate responsibility is preserving the cultural heritage of the land we work in. We have worked relentlessly in the past years to promote ethnic culture, revive traditional cultural ethos, develop sports, and participate in festivals and functions.

The last few years saw initiatives like

- » Swachh Bharat Campaign
- » Renovation of Religious Places (Repairing, Painting etc.)



*Construction & Painting of Boundary Wall for Hunuman Temple at Naibuga village (Dubuna)*

## Future of Growing With the Community

In our endeavour to make a difference to the lives of the underprivileged, our team of 10000+ workforce will ensure that we continue to partner with government bodies, district authorities, village panchayats and other like-minded organizations. Our Board of Directors, management and all employees subscribe to the philosophy of compassionate care. We believe and act on an ethos of generosity and compassion, characterised by a willingness to build a society that

works for everyone We collaborate with external agencies to share ideas, draw from each other's experiences, and ensure that efforts are not duplicated. Service to the community is at the core.

The GRI Index attached as an appendix in the next page highlights our effort under different categories of functionalities. As we move on, we hope to create a long-term value for all our stakeholders and grow with the nation.

**Annexure**





# Annexure

## Sustainability Scorecard

This chapter provides our sustainability performance over time

### OUR BUSINESS

Economic Value Generated & Distributed (EVG&D)	Unit	FY 2018-19	FY 2019-20	FY 2020-21
1) Economic Value Generated				
a) Revenues (including other income)	INR Lacs	4,59,079.05	527,992.16	5,45,273.30
2) Economic Value Distributed				
a) Operating Costs	INR Lacs	2,82,600.79	267,236.03	2,19,739.92
b) Employee benefits and wages	INR Lacs	14,417.03	16,516.38	15,275.24
c) Payment to providers of capital	INR Lacs	54,095.90	51,825.22	30,949.34
d) Payments to governments	INR Lacs	74,364.62	85,438.24	99,261.01
e) Community Investments	INR Lacs	1,958.63	1,139.45	993.27
f) Depreciation	INR Lacs	12,998.82	30,728.41	13,308.24
g) Share of Loss / (Profit) of Associate Co. - (Dec'20)	INR Lacs	2,679.59	3,273.11	2,804.16
3) Economic Value Retained				
	INR Lacs	15,963.67	71,835.32	1,62,942.12

### PRODUCTION

PRODUCTION TREND				
	Unit	2018-19	2019-20	2020-21
Iron Ore	MT	3937439.25	5815132.00	5994958.00
PMPL	MT	-	-	145070.00
BCML	MT	27854339.02	27999861.88	27999150.77
RCML	MT	15523447.02	13626735.69	12705387.36
NFA	MT	1718.92	1045.59	1262.18

### PEOPLE

	Employee Count		Employee Hires		Employee Exits		Trainings
	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21	2020-21
Unit	No.	No.	No.	No.	No.	No.	Hrs
Head office	86	85	7	7	0	0	334
Iron Ore	401	243	69	19	342	5	1510
PMPL	138	144	52	7	0	15	1344
BCML	304	301	2	5	3	8	853
RCML	203	210	2	10	4	5	733
NFA	82	80	4	4	1	6	2042
Renewable Energy	2	2	0	0	0	0	0



## EMPLOYEE DISTRIBUTION BY ROLE AND GENDER

	Head office	Iron Ore	PMPL	BCML	RCML	NFA
Total Employee	85	243	144	301	210	80
Permanent Employee (Male)	71	238	142	294	209	28
Permanent Employee (Female)	14	5	2	7	1	25
Number of Employee (Management)	76	120	57	49	42	3
Number of Employee (Non-management staff)	9	74	47	40	55	27
Number of Permanent workmen	0	49	40	212	113	25
Number of contract workers and other workers	15	1179	648	1364	889	132

## EMPLOYEE SAFETY

Parameters	Iron Ore		PMPL		BCML		RCML		NFA	
	LTI	LTIFR	LTI	LTIFR	LTI	LTIFR	LTI	LTIFR	LTI	LTIFR
Unit	hrs		hrs		hrs		hrs		hrs	
2020-21	0	0	0	0	0	0	0	0	0	0

## MATERIAL USED

	Parameter	Unit	FY 2018-19	FY 2019-20	FY 2020-21
NFA	Vanadium Pentoxide (Captive Production)	MT	620.60	632.00	687.41
	Vanadium Pentoxide (Domestically Sourced)	MT	16.00	51.36	49.24
	Vanadium Pentoxide (Imported)	MT	346.00	100.70	45.35
	Moly Oxide	MT	638.00	338.00	470.57
	Limenite Sand Ore	MT	114.00	76.80	115.48
PMPL	Coal	MT	-	-	4143.20
	Limestone	MT	-	-	5126.70
	Bentonite	MT	-	-	1659.40
	EP2 grease	MT	-	-	2.35



## ENERGY CONSUMPTION

HSD				
	Unit	2018-19	2019-20	2020-21
Iron Ore	kL	3072.00	4818.00	4944.80
PMPL	kL	0.00	0.00	4115.02
BCML	kL	25063.00	24058.00	28344.41
RCML	kL	15853.00	16056.00	15445.00
Natural Gas				
	Unit	2018-19	2019-20	2020-21
NFA	SCM	567738.90	619045.90	571405.94

## RENEWABLE ENERGY PRODUCED

	Unit	2018-19	2019-20	2020-21
Dhule Windmill	MWh	113934.14	103959.85	67094.64
Iron Ore	MWh	-	45.33	76.47

## ELECTRICITY PURCHASED

	Unit	2018-19	2019-20	2020-21
Iron Ore	MWh	2353.72	2237.51	2657.00
BCML	MWh	3478.38	4634.61	6515.50
RCML	MWh	7567.85	7353.34	7234.40
NFA	MWh	813.48	860.62	883.00

## TOTAL WATER WITHDRAWAL

	Unit	FY 2018-19	FY 2019-20	FY 2020-21
Iron Ore	m <sup>3</sup>	89367.00	71766.00	82966.00
PMPL	m <sup>3</sup>	0.00	32707.00	121959.00
BCML	m <sup>3</sup>	370834.00	361311.00	480630.00
RCML	m <sup>3</sup>	59084.62	105647.80	113346.00
NFA	m <sup>3</sup>	7325.00	17729.00	24966.20

## MINE WATER

	Unit	2018-19	2019-20	2020-21
Iron Ore	m <sup>3</sup>	63636.00	42414.00	58595.00
BCML	m <sup>3</sup>	364258.00	352838.00	525264.00
RCML	m <sup>3</sup>	50750.00	97790.00	128995.00



## EMISSION

Absolute Emission				
	Unit	2018-19	2019-20	2020-21
Iron Ore	TGHG	8958.60	15807.30	16559.71
PMPL	TGHG	0.00	694.07	43273.24
BCML	TGHG	73214.50	73042.70	87030.00
RCML	TGHG	46896.90	53250.33	51303.20
NFA	TGHG	1140.16	2029.09	1950.46

GHG Intensity				
	Unit	2018-19	2019-20	2020-21
Iron Ore	TGHG/ MT	0.002	0.003	0.003
PMPL	TGHG/ MT	0.000	0.000	0.298
BCML	TGHG/ MT	0.003	0.003	0.003
RCML	TGHG/ MT	0.003	0.004	0.004
NFA	TGHG/ MT	0.663	1.941	1.545

## WASTE DISPOSAL

Hazardous Waste Generated				
	Unit	2018-19	2019-20	2020-21
Iron Ore*	MT	2.92	9.46	6.31
PMPL	MT	0.00	0.00	0.00
BCML	MT	62.50	59.90	112.38
RCML	MT	44.28	46.26	46.70
NFA	MT	2154.08	2609.60	3273.82

\*metal scraps of Iron Ore business which is <1% of the total hazardous waste is not considered

Overburden Management				
	Unit	2018-19	2019-20	2020-21
Iron Ore	MT	145897.98	411498.52	308306.16
BCML	MT	34752448.58	37663515.02	39520472.00
RCML	MT	23827795.00	23347493.00	19697450.62

\*Overburden constitutes above 99% of the total non hazardous waste for Iron Ore, BCML and RCML

Non-Hazardous Waste				
	Unit	2019-20	2020-21	
NFA	MT	1235.33	1643.78	

# Assurance Letter



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ey.com

**The Management and Board of Directors  
Essel Mining & Industries Limited  
Aditya Birla Centre, A Wing, 1<sup>st</sup> Floor  
SK Ahire Marg, Worli,  
Mumbai - 400 307**

## **Independent Assurance Statement**

Ernst & Young Associates LLP (EY) was engaged by Essel Mining & Industries Limited (the 'Company') to provide independent assurance on its Sustainability Report 2020-21 (the 'Report') covering the Company's sustainability performance during the period 1<sup>st</sup>April 2020 to 31<sup>st</sup>March 2021.

The development of the Report based on the Global Reporting Initiative's Sustainability Reporting Standards (GRI Standards), its content, and presentation is the sole responsibility of the management of the Company. EY's responsibility, as agreed with the management of the Company, is to provide independent assurance on the report content as described in the scope of assurance. Our responsibility in performing our assurance activities is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any dependence that any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall performance, except for the aspects mentioned in the scope below.

## **Assurance standard**

Our assurance is in accordance with International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000), and our conclusions are for 'limited' assurance as set out in ISAE 3000.

## **Scope of assurance and methodology**

The scope of our work for this assurance engagement was limited to review of information pertaining to environmental and social performance for the period 1<sup>st</sup>April 2020 to 31<sup>st</sup>March 2021. We conducted, on a sample basis, review and verification of data collection/ calculation methodology and general review of the logic of inclusion/ omission of necessary relevant information/ data and this was limited to:

- ▶ Remote verification of data, on a selective test basis, for the following units/ locations, through consultations with the Site Team and Sustainability Team:
  - Iron ore - Koira Mines (Odisha)
  - Pro Minerals Private Limited (Odisha)
  - Bhubaneswari Coal Mining Limited (Odisha)
  - Rajmahal Coal Mining Limited (Jharkhand)
  - Noble Ferro Alloys, Vapi Plant (Gujarat)
  - Wind Power (Dhule and Nandurbar, Maharashtra)
  - Solar Power (Achampet, Alladurg Kalwakurty and Mustyal- Telengana, Bhadla and Vituza- Rajasthan and Charanka- Gujarat)
- ▶ Execution of an audit trail of claims and data streams, on a selective test basis, to determine the level of accuracy in collection, transcription and aggregation processes followed.
- ▶ Review of the Company's plans, policies and practices, pertaining to their social, environment and sustainable development, so as to be able to make comments on the fairness of sustainability reporting.
- ▶ Review of the Company's approach towards materiality assessment disclosed in the Report to identify relevant issues.





### **Limitations of our review**

The assurance scope excludes:

- Data and information outside the defined reporting period (1<sup>st</sup> April 2020 to 31<sup>st</sup> March 2021);
- Data and information on economic and financial performance of the Company;
- Data, statements and claims already available in the public domain through Annual Report, Corporate Social Responsibility Reports, or other sources available in the public domain;
- The Company's statements that describe expression of opinion, belief, inference, aspiration, expectation, aim or future intention provided by the Company;
- The Company's compliance with regulations, acts, guidelines with respect to various regulatory agencies and other legal matters.

### **Our assurance team and independence**

Our assurance team, comprising of multidisciplinary professionals, was drawn from our Climate Change and Sustainability network, and undertakes similar engagements with various companies. As an assurance provider, EY is required to comply with the independence requirements set out in International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants. EY's independence policies and procedures ensure compliance with the Code.

### **Observations and opportunities for improvement**

During the review process, we observed that:

- The Company upholds its commitment on transparently communicating its sustainability performance by publishing its Sustainability report as per the "in accordance" core criteria of the GRI Standards of the Global Reporting Initiative.
- The Company may further strengthen its materiality assessment and stakeholder analysis process to map and prioritize key material topics.
- The Company has the scope of improvement of internal sustainability data collation and documentation process.

### **Conclusion**

On the basis of our procedures for this limited assurance, nothing has come to our attention that causes us not to believe that the Company has reported on material sustainability issues relevant to its business.

**Ernst & Young Associates LLP**

**Chaitanya Kalia, Partner**  
**Dated: 11th August 2021**  
**Place: Mumbai, India**



GRI-Standards	Disclosure	Page Number/ Comment
GRI 101: Foundation 2016 [GRI 101 does not include any disclosures]		
General Disclosures		
GRI 102: General Disclosures 2016	102-1 Name of the organization	12
	102-2 Activities, brands, products, and services	17
	102-3 Location of headquarters	18
	102-4 Location of operations	18
	102-5 Ownership and legal form	12
	102-6 Markets served	17
	102-7 Scale of the organization	13
	102-8 Information on employees and other workers	106
	102-9 Supply chain	18
	102-10 Significant changes to the organization and its supply chain	None
	102-11 Precautionary Principle or approach	17
	102-12 External initiatives	51
	102-13 Membership of associations	FICCI, CII, FIMI
	102-14 Statement from senior decision-maker	04
	102-15 Key impacts, risks, and opportunities	36
	102-16 Values, principles, standards, and norms of behaviour	28
	102-17 Mechanisms for advice and concerns about ethics	28
	102-18 Governance structure	38
	102-40 List of stakeholder groups	34
	102-41 Collective bargaining agreements	83
	102-42 Identifying and selecting stakeholders	34
	102-43 Approach to stakeholder engagement	34
	102-44 Key topics and concerns raised	36
	102-45 Entities included in the consolidated financial statements	12
	102-46 Defining report content and topic Boundaries	12
	102-47 List of material topics	36
	102-48 Restatements of information	None
	102-49 Changes in reporting	None
	102-50 Reporting period	12
	102-51 Date of most recent report	12
	102-52 Reporting cycle	12
102-53 Contact point for questions regarding the report	13	
102-54 Claims of reporting in accordance with the GRI Standards	13	
102-55 GRI content index	112	
102-56 External assurance	110	



GRI-Standards	Disclosure	Page Number/ Comment
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	46
	103-2 The management approach and its components	46
	103-3 Evaluation of the management approach	46
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	47
	201-2 Financial implications and other risks and opportunities due to climate change	46
	201-3 Defined benefit plan obligations and other retirement plans	75
	201-4 Financial assistance received from government	47
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	47
	103-2 The management approach and its components	47
	103-3 Evaluation of the management approach	47
GRI 202: Market Presence 2016	202-1 Ratios of standard entry level wage by gender compared to local minimum wage	47
	202-2 Proportion of senior management hired from the local community	100%
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	48
	103-2 The management approach and its components	48
	103-3 Evaluation of the management approach	48
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	48
	203-2 Significant indirect impacts	48
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	54
	103-2 The management approach and its components	54
	103-3 Evaluation of the management approach	54
GRI 301: Materials 2016	301-1 Materials used by weight or volume	107
	301-2 Recycled input materials used	107
	301-3 Reclaimed products and their packaging material	107
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	56
	103-2 The management approach and its components	56
	103-3 Evaluation of the management approach	56
GRI 302: Energy 2016	302-1 Energy consumption within the organization	108
	302-2 Energy consumption outside of the organization	108
	302-3 Energy intensity	108
	302-4 Reduction of energy consumption	56



GRI-Standards	Disclosure	Page Number/ Comment
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	63
	103-2 The management approach and its components	63
	103-3 Evaluation of the management approach	63
GRI 303: Water and effluent 2018	303-1 Interactions with water as a shared resource	63
	303-2 Management of water discharge-related impacts	NA
	303-3 Water withdrawal	108
	303-4 Water discharge	None
	303-5 Water consumption	108
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	68
	103-2 The management approach and its components	68
	103-3 Evaluation of the management approach	68
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	68
	304-2 Significant impacts of activities, products, and services on biodiversity	68
	304-3 Habitats protected or restored	68
	304-4 IUCN Red List species and national conservation listspecies with habitats in areas affected by operations	NA
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	60
	103-2 The management approach and its components	60
	103-3 Evaluation of the management approach	60
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	109
	305-2 Energy indirect (Scope 2) GHG emissions	109
	305-4 GHG emissions intensity	109
	305-5 Reduction of GHG Emission	15
	305-7 SOx, NOx and other significant air emissions	61
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	67
	103-2 The management approach and its components	67
	103-3 Evaluation of the management approach	67
GRI 306: Waste 2016	306-1 Waste generation and significant waste-related impacts	64
	306-2 Waste by type and disposal method	67
	306-3 Waste generated	109

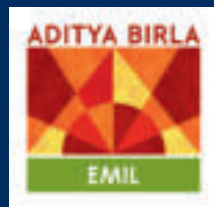


GRI-Standards	Disclosure	Page Number/ Comment
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	54
	103-2 The management approach and its components	54
	103-3 Evaluation of the management approach	54
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	54
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	74
	103-2 The management approach and its components	74
	103-3 Evaluation of the management approach	74
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	106
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	75
	401-3 Parental leave	2 employees availed parental leave; Retention rate 100%
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	72
	103-2 The management approach and its components	72
	103-3 Evaluation of the management approach	72
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	1 week
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	84
	103-2 The management approach and its components	84
	103-3 Evaluation of the management approach	84
GRI 403: Occupational Health and Safety 2016	403-1 Occupational health and safety management system	84
	403-2 Hazard identification, risk assessment, and incident investigation	86
	403-4 Worker participation, consultation, and communication on occupational health and safety	88
	403-5 Worker training on occupational health and safety	90
	403-6 Promotion of worker health	
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	86
	403-8 Workers covered by an occupational health and safety management system	100%
403-9 Work-related injuries	91	



GRI-Standards	Disclosure	Page Number/ Comment
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	81
	103-2 The management approach and its components	81
	103-3 Evaluation of the management approach	81
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	106
	404-2 Programs for upgrading employee skills and transition assistance programs	81
	404-3 Performance and career development review	76
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	80
	103-2 The management approach and its components	80
	103-3 Evaluation of the management approach	80
GRI 405: Diversity and Equal Opportunity	405-1 Diversity of governance bodies and employees	106
	405-2 Ratio of basic salary and remuneration of women to men	47
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	82
	103-2 The management approach and its components	82
	103-3 Evaluation of the management approach	82
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	NA
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	82
	103-2 The management approach and its components	82
	103-3 Evaluation of the management approach	82
GRI 407: Freedom of Association and Collective Bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	None
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	82
	103-2 The management approach and its components	82
	103-3 Evaluation of the management approach	82
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labour	None
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	82
	103-2 The management approach and its components	82
	103-3 Evaluation of the management approach	82
GRI 409: Forced or Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	83

GRI-Standards	Disclosure	Page Number/ Comment
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	94
	103-2 The management approach and its components	94
	103-3 Evaluation of the management approach	94
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	95
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundaries	94
	103-2 The management approach and its components	94
	103-3 Evaluation of the management approach	94
GRI 419: Socioeconomic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	None



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