Excellence, Sustainability, Mining Innovation, Environment, Social Responsibility and Health & Safety Awards 2021-22

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Award Scheme 2022-23

FEDERATION OF INDIAN MINERAL INDUSTRIES
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SPONSORERS OF FIMI AWARDS

Name of the Awards	Sponsored by	Year of Institution
Subh Karan Sarawagi Environment Award	S.K. Sarawagi & Co. Pvt. Ltd.	1990-1991
Abheraj Baldota Environment Award	MSPL Limited	
Misrilall Jain Environment Award	Misrilall Jain & Sons	
Gem Granites Environment Award	Gem Granites Private Limited	
Sita Ram Rungta Award for Social Responsibility	Rungta Mines Limited	1995-1996
NMDC Award for Social Responsibility	NMDC Limited	2001-2002
Bala Gulshan Tandon Award of Excellence	Padma Bushan Late Shri. G. L Tandon (Former Chairman of Coal India Limited)	2004-2005
Rio Tinto Health & Safety Award	Rio Tinto India Pvt. Limited	2011-2012
Hindustan Zinc Health & Safety Award	Hindustan Zinc Limited	2014-2015
Tata Steel Award for Sustainable Mining	Tata Steel Limited	2017-2018
Vedanta Sesa Goa Mining Innovation Award	Vedanta Limited - Sesa Goa Iron Ore	2020-2021
Hindalco-Aditya Birla Award for Sustainable Mining	Hindalco Industries Limited	2021-2022

FIMI's EXCELLENCE, SUSTAINABILITY, MINING INNOVATION, ENVIRONMENT, SOCIAL RESPONSIBILITY AND HEALTH & SAFETY AWARDS 2021 – 22

CONTENTS

BACKGROUND

In the present world of globalization, no business can achieve the desired results without ensuring economic, social and environment sustainability. However, unlike other industries that have choice of locating their projects at any geographical location suitable to them, mining industry inevitably has to be where the minerals occur. Therefore, the challenge of following sustainability principles gets significantly magnified and complicated too. This challenge gets further compounded by the fact that most of the mineral bodies are in forest, backward and tribal areas – where economic, social and other infrastructures are conspicuous by their absence. In such settings, mining industry has to take care of many diverse and compelling issues right from conservation of biodiversity, wildlife, environment, etc.

Mining industry follows sustainable mining while performing its dual role of meeting the domestic demand of raw materials as well as of increasing its contribution in the international market. It is striving hard to acquire the capability to deliver sustainable and responsible economic growth through R&D, productivity enhancement, improved technology and conservation strategies. The voluntary CSR and community welfare initiatives undertaken by the industry along with the Health & Safety of the stakeholders is well recognized.

In order to motivate and recognize the efforts of mining industry for having addressed these multi-dimensional issues in an exemplary manner, FIMI instituted FIMI's Awards Scheme in the year 1990-91 with the support of Ministry of Mines and MOEFCC.

There are twelve awards in six categories, viz. awards of Excellence, Sustainability, Mining Innovation, Environment, Social Responsibility and Health & Safety which are given annually through a Jury of experts in mining and sustainable development.

FIMI has instituted a new award under the Sustainability Award as “Hindalco – Aditya Birla Award for Sustainable Mining” in its Award Scheme 2021-22. The main objective of this annual award is to recognize and honour individual mines for their exemplary efforts in the field of Bio-diversity & sustainability performance in mining.

FIMI Awards have unique recognition in the country and are conferred by the Hon'ble Minister of Mines during the Annual General Meeting of FIMI. Each award carries a trophy and a certificate. In particular, the Excellence award was instituted in the year 2004-05 by Shri. G. L. Tandon, the country's first mining engineer to have been conferred the prestigious Padma Bhushan Award, in memory of his late wife Smt. Bala Gulshan Tandon. This award is designed to recognize excellence in overall mine performance covering economic, social, environmental and health & safety aspects.

LIST OF APPLICANTS FOR FIMI AWARD SCHEME 2021-22

I. EXCELLENCE AWARD – 1 No.

(i) Bala Gulshan Tandon Award of Excellence

1. Century Cement Limestone Mines, UltraTech Cement Limited
2. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
3. Kovandakurichi Limestone Mine, Dalmia Cement (Bharat) Limited
4. Noamundi Iron Mines, Tata Steel Limited
5. Sukinda Mines (Chromite), IMFA Limited
6. Vikram Cement Works, UltraTech Cement Limited

II. SUSTAINABILITY AWARDS – 2 Nos.

(i) Tata Steel Award for Sustainable Mining
(ii) Hindalco – Aditya Birla Award for Sustainable Mining

1. Bhusar Bauxite Mines, Hindalco Industries Limited
2. Koyagudem Opencast Mine-1, The Singareni Collieries Co. Limited
3. Padmavathi Khani No.5 Incline, The Singareni Collieries Co. Limited
4. Parsa East & Kanta Basan Coal mine, Adani Enterprises Limited
5. Periathirukonam Limestone Mine, Dalmia Cement (Bharat) Limited
6. Samri Bauxite Mine, Hindalco Industries Limited

III. MINING INNOVATION AWARD – 1 No.

(i) Vedanta – Sesa Goa Mining Innovation Award

1. Devadari Iron Ore Mine, JSW Steel Limited
2. Kallakudi Limestone Mine, Dalmia Cement (Bharat) Limited
3. Naokari Limestone Mine, Awarpur Cement works, UltraTech Cement Limited
4. Seethainagar Limestone Mines, Chettinad Cement Corporation Pvt. Limited

IV. ENVIRONMENT AWARDS – 4 Nos.

(i) Subh Karan Sarawagi Environment Award
(ii) Abheraj Baldota Environment Award
(iii) Misrilall Jain Environment Award
(iv) Gem Granites Environment Award

1. Bailadila Iron Ore Mine, Bacheli Complex, NMDC Limited
2. Bailadila Iron Ore Mine, Kirandul Complex, NMDC Limited
3. Baphlimali Bauxite Mine, Utkal Alumina International Limited
4. Barsua Iron Mine, Steel Authority of India Limited
5. Basantnagar Limestone Mine, Kesoram Industries Limited

6. Bend Soapstone and Dolomite Mines, Mahaveer Trading Company
7. Bhadra Iron Ore Mine, JSW Steel Limited
8. Bhomman Iron Ore Mine, JSW Steel Limited
9. Birla Cement Limestone Mine, Birla Corporation Limited
10. Choutapalli Limestone Mine, My Home Industries Pvt. Limited
11. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
12. Gare Palma Sector III Coal Mine, Adani Enterprises Limited
13. Jajang Iron Ore Mines, JSW Steel Limited
14. Kathautia Open Cast Coal Mine, Hindalco Industries Limited
15. Khondbond Iron Mines, Tata Steel Limited
16. Morwad Marble Mines, Arora's J K Natural Marbles Limited
17. Muddapur Limestone & Dolomite Mine, South West Mining Limited
18. Nandi Iron Ore Mine, JSW Steel Limited
19. Naokari Limestone Mine, UltraTech Cement Limited
20. Oraghat Iron Mines, Rungta Sons Pvt. Limited
21. Paraswani Limestone Mines, UltraTech Cement Limited
22. Rama Iron Ore Mine, JSW Steel Limited
23. Reddipalayam Limestone Mine, The Ramco Cements Limited
24. Samri Bauxite mine, Hindalco Industries Limited
25. Seethainagar Limestone Mines, Chettinad Cement Corporation Pvt. Limited
26. South of South Limestone Mines, The Ramco Cements Limited
27. Sukinda Chromite Mines, Tata Steel Mining Limited
28. Sukinda Mines (Chromite), IMFA Limited
29. Talaipalli Coal Mining Project, NTPC Limited
30. Tummalapenta Limestone Mine, UtltraTech Cement Limited
31. Yanakandla Limestone Mine, Sree Jayajothi Cements Pvt. Limited

V. SOCIAL RESPONSIBILITY AWARDS – 2 Nos.

(i) Sita Ram Rungta Award for Social Responsibility
(ii) NMDC Award for Social Responsibility

1. APA&K Limestone Mine, Dalmia Cement (Bharat) Limited
2. Bailadila Iron Ore Mine, Kirandul Complex, NMDC Limited
3. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
4. Katamati Iron Mine, Tata Steel Limited
5. Kathara Granite Mine, Fortune Stone Limited
6. Manoharpur Coal Mine, Odisha Coal & Power Limited
7. Sukinda Chromite Mines, Tata Steel Mining Limited
8. Ubbalagundi Iron Ore Mine, JSW Steel Limited

VI. HEALTH & SAFETY AWARDS – 2 Nos.

(i) Rio Tinto Health & Safety Award
(ii) Hindustan Zinc Health & Safety Award

1. Bailadila Iron Ore Mine, Bacheli Complex, NMDC Limited
2. Bailadila Iron Ore Mine, Kirandul Complex, NMDC Limited
3. Baphlimali Bauxite Mine, Utkal Alumina International Limited
4. Budawada Limestone Mines, Balaji Cement Works, UltraTech Cement Limited
5. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
6. Dharma Iron Ore Mine, JSW Steel Limited
7. Donimallai Iron Ore Mine, NMDC Limited
8. Ghewaria Mine, Udaipur Mineral Development Syndicate Pvt. Limited
9. Jajang Iron Ore Mines, JSW Steel Limited
10. Jhamarkotra Rock Phosphate Mine, Rajasthan State Mines & Minerals Limited
11. Kalta Iron Mine, Steel Authority of India Limited
12. My Home Limestone Mine, My Homne industries Pvt. Limited
13. Naokari Limestone Mine, Awarpur Cement works, UltraTech Cement Limited
14. Narayan Iron & Manganese Ore Mine, JSW Steel Limited
15. Oraghat Iron Mines, Rungta Sons Pvt. Limited
16. Sanindpur Iron & Bauxite Mines, Rungta Sons Pvt. Limited
17. Talaipalli Coal Mining Project, NTPC Limited
18. Taldih Iron Ore mine, Steel Authority of India Limited
19. Tummalapenta Limestone Mine, UltraTech Cement Limited
20. Tunga Iron Ore Mine, JSW Steel Limited
21. Yanakandla Limestone Mine, Sree Jayajothi Cements Pvt. Limited

JURY COMMITTEE MEETINGS

The 1st and 2nd Jury Committee Meetings for FIMI Awards 2021-22 were held on 20th May, 2022 and 17th - 18th June, 2022 respectively at FIMI Office, New Delhi under the chairmanship of Prof. B.B. Dhar, Former Professor and Head, Dept. of Mining Engineering, IIT-BHU and Former Director, CSIR-CIMFR.

During its 1st meeting, the Jury committee shortlisted 36 mines under Excellence, Sustainability, Mining Innovation, Environment, Social Responsibility and Health & Safety Category for next level of assessment / presentation for selecting final winners of FIMI Awards 2021-22.

During 2nd meeting, 36 shortlisted mines presented their best practices before the Jury Committee. After detailed deliberation and review, the Jury committee finally selected 18 mines for FIMI Awards 2021-22, including 6 FIMI Special Awards:

LIST OF JURY MEMBERS PRESENT DURING MEETINGS

Chairman

Prof. B.B. Dhar
Former Professor and Head, Dept. of Mining Engg., IIT – BHU and
Former Director – CSIR-CIMFR

Members

Mr. Anandji Prasad
Advisor (P), Ministry of Coal
Government of India

Mr. A. V. Subbarao
Director
Directorate General of Mines Safety (DGMS)

Mr. Sharath Kumar Pallerla
Scientist 'F', IA (Policy)
Ministry of Environment, Forest &
Climate Change, Government of India

Prof. Gurdeep Singh
Former Professor & Head
Dept. of Environmental Science & Engg.,
Indian Institute of Technology (ISM), Dhanbad

Mr. N. N. Gautam
Former Advisor
Ministry of Coal, Government of India

Dr. T. K. Joshi
Advisor
Ministry of Environment, Forest & Climate
Change, Government of India

Mr. A. N. Prasad
Former Inspector General (Forests)
Ministry of Environment, Forest & Climate
Change, Government of India

Mr. R.K Sharma
Secretary General, FIMI
Special Invitee

Member Secretary

Mr. B. K. Bhatia
Additional Secretary General, FIMI

LIST OF SHORTLISTED MINES FOR FIMI AWARD SCHEME 2021-22

I. EXCELLENCE AWARD– 1 No.

(i) Bala Gulshan Tandon Award of Excellence

1. Century Cement Limestone Mines, UltraTech Cement Limited
2. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
3. Kovandakurichi Limestone Mine, Dalmia Cement (Bharat) Limited
4. Noamundi Iron Mines, Tata Steel Limited

II. SUSTAINABILITY AWARDS – 2 Nos.

(i) Tata Steel Award for Sustainable Mining
(ii) Hindalco – Aditya Birla Award for Sustainable Mining

1. Padmavathi Khani No.5 Incline, The Singareni Collieries Co. Limited
2. Parsa East & Kanta Basan Coal mine, Adani Enterprises Limited
3. Periathirukonam Limestone Mine, Dalmia Cement (Bharat) Limited
4. Samri Bauxite mine, Hindalco Industries Limited

III. MINING INNOVATION AWARD – 1 No.

(i) Vedanta – Sesa Goa Mining Innovation Award

1. Kallakudi Limestone Mine, Dalmia Cement (Bharat) Limited
2. Naokari Limestone Mine, Awarpur Cement works, UltraTech Cement Limited

IV. ENVIRONMENT AWARDS – 4 Nos.

(i) Subh Karan Sarawagi Environment Award
(ii) Abheraj Baldota Environment Award
(iii) Misrilall Jain Environment Award
(iv) Gem Granites Environment Award

1. Bhadra Iron Ore Mine, JSW Steel Limited
2. Rama Iron Ore Mine, JSW Steel Limited
3. Morwad Marble Mines, Arora's J K Natural Marbles Limited
4. Bend Soapstone and Dolomite Mines, Mahaveer Trading Company
5. Oraghat Iron Mines, Rungta Sons Pvt. Limited
6. Bhomman Iron Ore Mine, JSW Steel Limited
7. Sukinda Chromite Mines, Tata Steel Mining Limited
8. Samri Bauxite mine, Hindalco Industries Limited
9. Khondbond Iron Mines, Tata Steel Limited
10. Bailadila Iron Ore Mine, Bacheli complex, NMDC Limited

11. Choutapalli Limestone Mine, My Home Industries Pvt. Limited
12. Nandi Iron Ore Mine, JSW Steel Limited

V. SOCIAL RESPONSIBILITY AWARDS – 2 Nos.

(i) Sita Ram Rungta Award for Social Responsibility
(ii) NMDC Award for Social Responsibility

1. Bailadila Iron Ore Mine- Kirandul Complex, NMDC Limited
2. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
3. Katamati Iron Mine, Tata Steel Limited
4. Kathara Granite Mine, Fortune Stone Limited
5. Manoharpur Coal mine, Odisha Coal & Power Limited
6. Sukinda Chromite Mines, Tata Steel Mining Limited
7. Ubbalagundi Iron Ore Mine, JSW Steel Limited

VI. HEALTH & SAFETY AWARDS – 2 Nos.

(i) Rio Tinto Health & Safety Award
(ii) Hindustan Zinc Health & Safety Award

1. Bailadila Iron Ore Mine, Bacheli Complex, NMDC Limited
2. Baphlimali Bauxite Mine, Utkal Alumina International Limited
3. Daitari Iron Ore Mine, Odisha Mining Corporation Limited
4. Dharma Iron Ore Mine, JSW Steel Limited
5. Ghewaria Mine, Udaipur Mineral Development Syndicate Pvt. Limited
6. My Home Limestone Mine, My Home Industries Pvt. Limited
7. Sanindpur Iron & Bauxite Mines, Rungta Sons Pvt. Limited

AWARD WINNING MINES IN FIMI AWARD SCHEME 2021-22

FIMI EXCELLENCE AWARD

Bala Gulshan Tandon Award of Excellence	Noamundi Iron Mines Tata Steel Limited

FIMI SUSTAINABILITY AWARDS

Hindalco – Aditya Birla Award for Sustainable Mining	Parsa East & Kanta Basan Coal Mine Adani Enterprises Ltd.
Tata Steel Award for Sustainable Mining	Samri Bauxite Mine Hindalco Industries Ltd.
FIMI Special Award for Sustainable Mining	Padmavathi Khani No.5 Incline The Singreni Collieries Co. Ltd.

FIMI MINING INNOVATION AWARDS

Vedanta Sesa Goa Mining Innovation Award	Kallakudi Limestone Mine Dalmia Cement (Bharat) Ltd.
FIMI Special Mining Innovation Award	Naokari Limestone Mine UltraTech Cement Ltd.

FIMI ENVIRONMENT AWARDS

Subh Karan Sarawagi Environment Award	Oraghat Iron Mines Rungta Sons Pvt. Ltd.
Abheraj Baldota Environment Award	Sukinda Chromite Mines Tata Steel Mining Limited
Misrilall Jain Environment Award	BIOM, Bacheli Complex NMDC Limited
Gem Granites Environment Award	Bhadra Iron Ore Mine JSW Steel Limited
FIMI Special Environment Award	Morwad Marble Mines Arora's J K Natural Marbles Ltd.

FIMI SOCIAL RESPONSIBILITY AWARDS

Sita Ram Rungta Award for Social Responsibility	BIOM, Kirandul Complex NMDC Limited
NMDC Award for Social Responsibility	Manoharpur Coal Mine Odisha Coal & Power Ltd.
FIMI Special Award for Social Responsibility	Kathara Granite Mine Fortune Stone Limited

FIMI HEALTH & SAFETY AWARDS

Rio Tinto Health & Safety Award	Daitari Iron Ore Mine Odisha Mining Corporation
Hindustan Zinc Health & Safety Award	Baphlimali Bauxite Mine Utkal Alumina International Ltd.
FIMI Special Health & Safety Award	My Home Limestone Mine My Home Industries Pvt. Ltd.
FIMI Special Health & Safety Award	Ghewaria Mine Udaipur Mineral Development Syndicate Pvt. Ltd.

CITATIONS

BALA GULSHAN TANDON AWARD OF EXCELLENCE

NOAMUNDI IRON MINE – TATA STEEL LIMITED

Noamundi Iron Mines of Tata Steel Limited is a fully mechanized opencast mine located in Mahudi, Balijor, Korta, Noamundi, Sarbil, Barabalijori villages in West Singhbhum district of Jharkhand. It is spread over an area of 1160.06 Ha. Out of the total lease area, 762.43 ha is forest land and 397.63 ha is non-forest land. It is a 5 star rated mine by IBM. The mine has successfully identified and implemented innovative practices in the field of mining, environment, health & safety and social activities to achieve best in class performance. The mine is committed in taking courageous efforts to adopt best practices, modern technologies and innovation to ensure efficient and sustainable mining activities.

Unique features and innovative practices adopted by mine:

- **Fleet Management System**: To improve machine and employee productivity, Fleet Management System (FMS) is implemented in the mines. It helps in tracking real time performance, dynamic dispatch, data analytics, grade control and blending, automatic report generation from database etc. FMS is upgraded subsequently with enhanced real time visibility and integration with various tools like Fatigue Monitoring system, Vehicle Health Monitoring System (VHMS), Real Time Quality Monitoring System (RTQMS) to capture, monitor and analyse various KPI's.

- The mine has deployed remote Controlled Drilling (Smart Roc Drill) which is remotely operated with an option of carrying 2 drills at a time.

- **Women in mining**: With an objective for women empowerment at mines, women @ mines initiative is implemented to involve female workforce in mining operations with shift operations being completely managed by female workforce comprising of officers, employees and contract workforce. The mine has also introduced Tejaswini 2.0 initiative for operations of HEMMs like excavator, shovel, dumper etc. by female employees.

- During COVID-19 outbreak, “Connected Workforce” platform was implemented at mines to ensure that all the COVID guidelines are followed along with necessary tracing for Covid positive cases. It consisted Assemblage Analysis, Social Distancing at Canteen, Canteen Slot Booking Analysis, Risk Profile Identification, Risk Detection at Gate.

- The mine has implemented Maintenance Technology Roadmap (MTR) enabled with sensor and real-time asset model for predictive maintenance along with continuous monitoring of equipment's health parameters.

- Dumper Training Simulator is also provided to employees with the provision of simulation of all types of ground conditions that occurs during dumper operation. It enhances the efficiency of dumper operator and create awareness about safe operating procedure of dumpers.

Best Practices:

- Implementation of Integrated Operation Centre has enabled increasing the productivity of Noamundi Iron Mines. This has also enabled selective and authorized operation.

- Shovel Boulder detection system is implemented. This helps in continuous real time monitoring of loaded truck.

- In order to achieve Zero Waste Mining, Slimes at Noamundi are blended with top soil to reduce Fe concentration which is Iron ore slimes improve the water holding capacity when mixed with soil in certain proportion, decreases the permeability of mixture and helps in retaining the nutrients with the soil. This slime is used by farmers as manure.

- Dry fog and chemical jet system used for dust suppression in mines.

- 3MW solar power plant is installed at Reclaimed hill top at Noamundi to reduce CO_2 emission by about 3,000 tonnes per annum.

- To restore indigenous ecosystem, Miyawaki method is followed by closely planting different species of trees. Rainwater harvesting structures are constructed in the mine.

- The mine has introduced drone application for monitoring of various aspects of mining operations.

- To reduce carbon footprint, cost of operation, better monitoring and control of power consumption, all the feeders at mines are equipped with energy meters to collect the data automatically and built in analytics for quick action.

- Under CSR initiatives, persons with disabilities in nearby villages, are offered with various courses like training for trainers programme, disability awareness workshops, digital literacy programme, career awareness workshops, foundation courses.

Keeping in view the mine's extraordinary overall performance and commitment towards sustainable development, it has been awarded with the **Bala Gulshan Tandon Award of Excellence for the year 2021-22.**

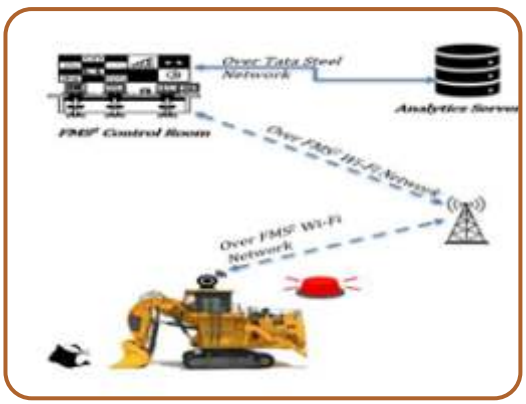
HEMM Simulator for Training

Integrated Control Room

Fleet Management System

MTR (Maintenance Technology Roadmap) installed on equipment

Risk detection at gate



Boulder Detection System

Rain Water Harvesting

Solar Power Plant of 3MW capacity

Miyawaki Method of Plantation

Providing ITI courses for fitter and electrician

9,000 masks made and distributed to frontline workers

CSR initiatives for Persons with Disability (PWD)

HINDALCO – ADITYA BIRLA AWARD FOR SUSTAINABLE MINING

PARSA EAST & KANTA BASAN COAL MINE - ADANI ENTERPRISES LIMITED (MDO for RRVUNL)

Parsa East and Kanta Basan Coal Mine operated by Adani Enterprises Ltd. is a fully mechanized opencast mine located in Parsa village of Surguja district, Chhattisgarh with Salhi, Hariharpur, Parsa, Kente, Ghatbara, Parogiya and Basan villages in its vicinity. It is spread over an area of 2682.86 ha. Out of the total lease area, forest area is 1871.12 ha and 811.74 ha of non-forest land. The mine is accredited with Integrated Management System and ISO 9001 (QMS), ISO 14001 (EMS) and ISO 45001 (OHSAS).

The mine has adopted innovative and effective practices in biodiversity and environmental management as well as CSR activities addressing local stakeholder groups to contribute to overall socio-economic development in the region. With an aim to integrate the sustainability into mining operations, the mine has implemented a suitable and robust business model.

Unique features and innovative practices adopted by mine:

- **Surface Miner at mines**: 4 surface miners have been deployed at the site for coal extraction. It is used as a clean mining technology with less carbon contribution to the environment.

- A private railway line of 75 km has been established to supply the washed coal to Rajasthan Rajya Vidyut Utpadan Nigam Limited (owner) from PEKB railway siding using silo to its destination via Surajpur of Chhattisgarh.

- **Tree transplanter**: The mines management is using tree transplanter since 2012 for transplanting Sal trees from one location to another. The tree transplanter has the potential to shift trees of 60 cm girth. Till March 2022, about 8946 plants of different species have been transplanted to different locations instead of felling. It helps in maintaining the ecological services of the trees.

Best Practices:

- In-house Nursery has been developed for plantation on reclaimed area. Sal is a Native species of the region; saplings are being nurtured for plantation. Along with Sal various other species are also being used.

- For preservation of soil moisture from intense heat,drip irrigation system using soil

mulching sheet is being introduced. It helps in water conservation by preventing direct evaporation of water from soil.

- Black-top road is regularly cleaned with mechanized road sweeping machine. Regular water sprinkling is done on haul roads and loading sites.

- Dust suppression is done inside mine area on haul roads through fifteen dedicated water tankers. Additionally, five numbers of water tankers are engaged for dust suppression on surface around washery and other approach roads.

- A dense green belt has been developed in and around the mine site to overcome the dust generated from mine faces, overburden and coal handling operations. In addition to this, other mitigation steps like Coal Handling Plant, safety zone etc. are also developed.

- The mines management is also giving skill training to the local women. Women are now becoming self-dependent and earing their livelihood as well. Free of Cost health facilities are also being provided to them.

- The mine is also reducing its carbon emissions output by deploying solar street lights, using energy efficient electrical equipment's. The installation of renewable energy plant within mining lease area is also anticipated.

- Garland drains, Check dams & Bunds are made along the periphery of dumpsite to prevent water carrying the wash offs from the dumps.

- The mine has also undertaken well appreciated CSR activities by providing safe drinking water to villages by water pipelines, organizing mega health camps etc.

Keeping in view the mine's outstanding efforts in the area of biodiversity conservation and sustainability, it has been awarded with the **Hindalco – Aditya Birla Award for Sustainable Mining for the year 2021-22.**

Surface Miner at mining operations

75 km long Private railway line for ore transportation

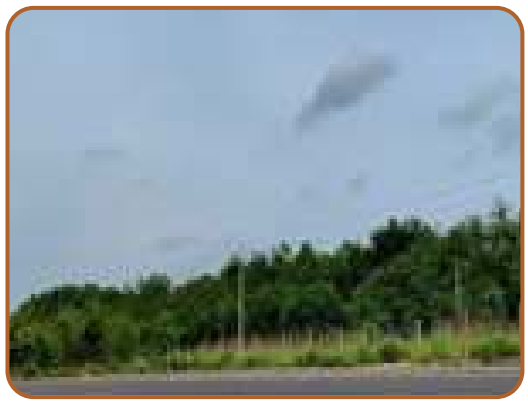
Mechanized dust sweeper

Tree transplanter for relocating trees

Drip system for watering saplings

Soil moisture conservation

In-house nursery



Greenbelt development and afforestation in mines area

Sewing centre for local women

Mobile health unit

TATA STEEL AWARD FOR SUSTAINABLE MINING

SAMRI BAUXITE MINES - HINDALCO INDUSTRIES LIMITED

Samri Bauxite Mine of Hindalco Industries Limited is a semi-mechanized mine located at Samri Tehsil of Balrampur district in Chhattisgarh. It is spread over an area of 3742Ha. It is an opencast mine with an operational capacity of 9.6 LTPA of bauxite. The mine is accredited with Environmental Management System – ISO 14001: 2015, OH & SMS – ISO 45001: 2018, Quality Management System – ISO 9001: 2015 and Social Accountability Policy – SA 8000: 2014.

The mine has adopted effective practices in the area of Sustainability and biodiversity management. The mine has also implemented innovative initiatives for mainstreaming sustainability into mining operations.

Unique features and innovative practices adopted by mine:

- **Sustainability Tool -** The mine has Enablon software to measure Sustainability, EH&S and Operational Risk Management. The tool provides solutions to manage environmental and social performance, minimize risks and improve profitability. The Enablon software consists of Self-Assessment modules (SAQ) related to Environment, Occupational Health Management, First Aid & Emergency Medical care and Incidence Management.

- **Use of X-centric Ripper -** To eliminate hazards associated with drilling and blasting like emission of dust, noise, vibration and flying of rock.X-centric ripper machine is introduced in the working pits. This has eliminated hazards associated with blasting and also made operation safe & eco-friendly.

- **Compliance Manager Tool -** For monitoring various statutory provisions applicable to the mine, it has implemented compliance manager tool.

- **Vehicle Tracking System -** Every transport truck is fitted with GPS to track the movement of vehicle on the road in order to put effective control in terms of safety. It gives following alert for proper control such as unauthorized stoppage, route deviation alert, over speeding alert, emergency help etc.

- **Simultaneous back filling -** The practice of simultaneous backfilling is being exercised at the mine. The mined-out area is effectively backfilled and laid with top soil. Some mined out area has been converted into rain water harvesting pond for augmenting ground water.

- **Use of screening machine -** it is a Waste to Wealth initiative which has helped significantly to improve recovery factor and enhanced production, thus taking a step towards optimum utilization of mineral resources.

Best Practices:

- Samri Bio-Park project has been developed on a mine reclaimed land which paves way for mines tourism.
- Samri Tea Project has been established on 2.6 ha. of reclaimed mined out land to demonstrate and enable local farmers for diversification of income sources.
- Aditya Udyan is developed on mined out reclaimed land. It is a potential site for local and community interaction. Further, an in-house nursery on 6 acres of land with 60,000+ saplings generated every year to augment the mine afforestation program. Afforestation drive has been organized periodically.
- Rain Water harvesting ponds and structures are maintained for ground water recharge. The mine has also developed green belt and Safety Zone within and around the lease boundary. 70% of the energy requirement in mines is fulfilled from renewable sources.
- The mine's management has developed Aditya Vidya Mandir which aims to provide quality education to local students free of cost. Safe drinking water ATM has been provided at various locations for villagers.
- Skill based training such as pisciculture, mushroom cultivation etc. are given to local villagers for earning their livelihood.
- To strengthen medical facility for local community, the mine's management has set-up a 6-bedded hospital with 3 dispensaries with free medicines and ambulance facility.
- Bio-diversity study has been carried out for developing Biodiversity Management Plan integrated with Mine Closure Plan for achieving no-net loss to Bio-diversity.
- Root Cause Analysis is done for any potential near miss incidents to arrive best possible solution for taking effective preventive measures.
- Well defined Contractor Safety Management Procedure is implemented at mines through well trained Field Contract Administrators (FCA).

Keeping in view the mine's outstanding efforts in the area of biodiversity conservation and sustainability, it has been awarded with the **Tata Steel Award for Sustainable Mining for the year 2021-22.**

Use of X-Centric Ripper in mining operations

Screening Machine

Tea Garden with Rain Gun Irrigation system

Aaditya udyaan on reclaimed land

Pisiculture pond for fish rearing

Clothes distribution camps for locals

Boating at mines

Safe drinking water for locals

Solar power at nursery

Rock garden at biopark

Aditya Vidya Mandir for villagers

Health facility for employee and villagers

FIMI SPECIAL AWARD FOR SUSTAINABLE MINING

PADMAVATHIKHANI No.5 INCLINE – THE SINGARENI COLLIERIES COMPANY LIMITED

Padmavathi Khani No.5 Incline is a fully mechanised underground coal mine of The Singareni Collieries Company Limited (SCCL), jointly owned by the Government of Telangana and Government of India. The mine is located in Rudrampur Village, Chunchupalli Mandal, Bhadradri-Kothagudem District of Telangana State and started its operations in the year 1952. It is spread over an area of 916.48 Ha. Out of the total area, forest land is 768.99 Ha and 147.49 Ha is SCCL acquired Govt. land.

The mine has taken excellent efforts for effective practices in biodiversity and environment management in surroundings of the mine area. The CSR policy of the mine has adopted responsible approach towards communities and aimed for sustainable development.The mine has also launched a number of 'eco-friendly' practices to mitigate damage to environment and improve quality of life. Various key initiatives are undertaken by mines for environment protection in the recent years include setting up of Automatic Dust Suppression arrangements, Sewage Treatment Plants, Effluent Treatment Plants, Bio-engineering structures on OB Dumps,Medicinal Plantations and development of parks and gardens.

Unique features and innovative practices adopted by mine:

- Massive plantations have been taken up for conservation of flora and fauna. So far, plantation has been carried in 78.24 Ha of mine area out of 149.49 ha. It has taken up for plantation in vacant lands, degraded forest lands of the surface area. Avenue 3-tier plantation are taken up for development of thick green belt.

- The mine has created eco-parks on the reclaimed area. Jogging tracks are made which adds aesthetic beauty to the surrounding and promotes tourism.

- A Wildlife Conservation Plan has been prepared and approved by PCCF, Wildlife, Telangana State at the cost of Rs. 4.80 Cr. with an objective to mitigate impact of project on Kinnerasani Wildlife Sanctuary and other wildlife habitats located in and around the diverted forestland.

- The discharged water from the mines is being treated in filter beds and utilized for industrial and domestic purposes such as dust suppression, stowing, washing of machinery, fire-fighting and plantation.

- The mines management has carried out the detailed ecological assessment of existing biological resources. It is carried out by field survey in consultation with State forest officials.

- This mine has utilised bottom ash for stowing purposes. Wet bottom ash is properly transported to mines in tarpaulin covered trucks.

- The mine is providing employment to the local population, so that they can earn a decent livelihood for their families and enhance their standard of living.

Best Practices:

- Eco-friendly Mining operation is being implemented by using advanced mining technology thus eliminating the drilling and blasting operations and minimizing strata disturbances and dust emissions. Regular monitoring of air is being carried out as per CPCB norms.

- The main mechanical ventilator is installed in acoustically designed enclosed chambers with Evasee. The fan is so established taking into the account of annual wind direction parameters and thick green belt was developed in the region with predominant wind direction.

- Rain water harvesting structures are constructed at various locations. Check dams have been constructed. It helps in recharging of water bodies.

- The cracks / pot holes formed on surface as a result of subsidence due to UG mining has been filled with OB material and compacted. So that top soil is also protected from erosion.

- The mine management has formed Safety Management Team (SMT) comprising of employees at all level for identifying the potential risks from mining operations. It helps the management to prioritize the risk and manage them before their actual occurrence. Responsibility matrix along with SOPs as per Safety Management Plan were given to all concerned persons. Regular training is being given on SMP.

- The Mines is taking up different activities like raising of plantations, distribution of fruit bearing and other plants to the surrounding villages, institutions, Govt. organizations and NGOs under CSR initiatives.

- Medical facilities are provided to the local villagers. Regular medical camps are organized in which free consultation and medicines are given. During Covid-19, the management has distributed mask and sanitizers free of cost to villagers and school children.

- The mines management has adopted various measures to ensure safety during working in workshops such as Lock out and Tag out (LOTO) system and shutdown procedures have been implemented.

Keeping in view the mine's outstanding efforts in the area of biodiversity conservation and sustainability, it has been awarded with the **FIMI Special Award for Sustainable Mining for the year 2021-22.**

Plantation on approach Road to Mine

Green Belt Development in Mine Surroundings

Establishment of Eco-Parks and Jogging Tracks

Development of Water Sewage Treatment Plant in the Employees Colony

Environmental monitoring at mines

Flora present in Mines Area

Organising Medical Camps to the Surroundings Villages

Distribution of Sanitisers and N95 Masks to the Villagers and School Children

Periodical Trainings to the Implementors on SMP

Training of workers on H&S aspect

VEDANTA – SESA GOA MINING INNOVATION AWARD

KALLAKUDI LIMESTONE MINES - DALMIA CEMENT (BHARAT) LIMITED

Kallakudi Limestone Mines is a captive mine of Dalmia Cement (B) Ltd. It is located in Trichy District, State Tamil Nadu. It is an Opencast Mechanized Mine with an operating capacity of 1.2 MTPA of Limestone over an extent of 111.98 Hectares, started its operation from 1939 before Pre-Independence era. This Mine is supplying Limestone to three Kilns located in Dalmiapuram and Ariyalur Plants.

The mine is committed to bring innovation into mining operations, which forms the very core basis of their business approach. The mine believes in taking courageous attempt to adopt best practices, modern technologies and innovation to ensure that mining activities are efficient and sustainable with minimum adverse impact.

Unique features and innovative practices adopted by mine:

- Eco-Friendly and non-conventional methods of mining operations are adopted by deploying mega rock breakers like Vibro-Silencer.

- **Use of Biofuels:** Due to scarcity of fossil fuel, the mine has switched over to Biofuels like Fatty Acid Methyl Ester in mines machinery as an alternate fuel. Further, mines management has also designed and made in-house bio-diesel filtration unit. A proper system for filtration, storage and dispensing of biodiesel are set up at mines.

- **Boat house in mined out land:** A portion of Mined out area is designed and developed as a water storage reservoir into a boat house. The boat house has a water fall and a rocky island. A Nakshatra garden with medicinal Plants is also developed adjoining the boat house area. Sculptures of birds and animals were made with scrap materials add more beauty. A walking track is also provided around the boat house. Flora and fauna developed in the adjoining area adds more liveliness and enhances aesthetic beauty inside the mine.

- The mine has made in house wheel washing system for transport tippers to prevent the entry of slush from mines haul road to outside.

- Operator's cabin is provided with viscous pad to reduce the vibration of the machine at the operator's cabin. Critical spares in the rock breaker such as lower bush, retainer bar is recycled and re-used to reduce the inventory on the spares.

- **Mine automation**: Entire mine operation monitored from mine control room via GPS tracking through Software Operator Independent Truck dispatch system. RFID tagged in all HEMM for locating and tracking of vehicles.

Best Practices:

- Green belt has been developed in and around the mines site. Mine has planted about 33,000 Nos of saplings with adequate post plantation care.

- The existing mine pit acts as rain water harvesting pit. The collected rain water is utilized for plant operations which meets out of 40% of plant requirement.

- The Mine Management not only takes care of the mine environment but also takes care of the surrounding environment through CSR activities in the sector of education, healthcare, sustainable livelihood. Sanitary blocks are constructed in schools for good health and hygiene of school students.

- With an objective to utilize the solar energy at mines, the management has installed mini solar plant having 4.7 KW off grid system. This will reduce the carbon emissions and contribute to company commitment for CO_2 emissions.

- To assist the community in becoming self-dependent through entrepreneurship, various trainings are imparted on agriculture so that farmer's yield can be improved. Micro drip irrigation system is provided to farmers.

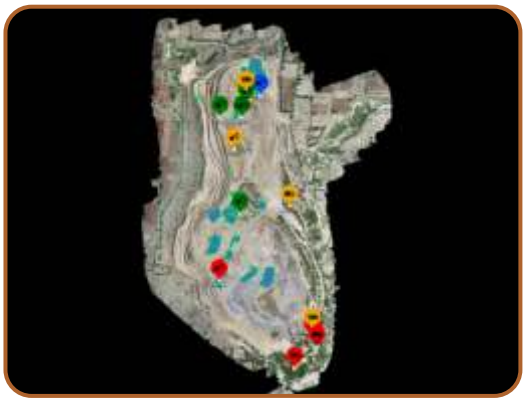
- Tipper simulator training is also provided with the provision of all types of conditions that occurs during dumper operation. It enhances the efficiency of tipper operator and create awareness about safe operating procedures.

- The mines management is encouraging innovation among workers. Many in-house innovations being develop by workers such as modification of bio-diesel filtration unit.

- The mines has also installed Digital Education System in surrounding schools. It enables the students for interactive learning. Around 1100 school students were benefited.

Keeping in view the mine's extraordinary efforts for adopting and implementing various innovations into mining operations, it has been awarded with **Vedanta – Sesa Goa Mining Innovation Award for the year 2021-22.**

Biodiesel storage and handling



Machine and Truck positioning using GPS

Wheel Washing system

RFID tagged in all HEMM for tracing

Settling pond for water drainage

Afforestation in the Mines Area

Mined out area developed into a Boat house

Flora & Fauna maintained at Mines

Training by tipper simulator

Drip irrigation system to farmers

Solar study lamps to students

Sanitary block constructed at school.

FIMI SPECIAL MINING INNOVATION AWARD

NAOKARI LIMESTONE MINES, UNIT AWARPUR CEMENT WORKS - ULTRATECH CEMENT LIMITED

Naokari Limestone Mines of UltraTech Cement Ltd, is the captive mine for Awarpur Cement Works is located in villages Palgaon, Awarpur, Naokari, Bakardi and Talodi of Chandrapur district in Maharashtra.

The mine having lease area of 1030.58 ha. with annual production capacity of 5 million tonnes. It is a fully mechanized opencast mine and lease executed in the year 1980. It fulfils the raw material requirement of limestone and shale of the cement plant.

The mine has successfully identified and implemented innovation in the field of environment, health & safety and social performance to achieve best in class performance.

Unique features and innovative practices adopted by mine:

- As effort towards innovative mining, the mine is using the processed waste of paper industry and using it for blending with the ROM Limestone. This limesludge is having LSF about 300 and other parameters in line with Cement Process requirement. It has tangible effect in terms of cost savings and intangible effect by enhancing mine life and also contribute to environment conservation.

- **Zero waste mining:** In an effort towards zero waste mining, innovation of swapping subgrade and unusable ore between two sister concerns is introduced. The mine is using the High MgO (About 10%) Limestone of Awarpur at Manikgarh Cement Works and in reverse also using High SiO2(16-17%) and Low SO3 Limestone of Manikgarh at Awarpur.This has given immediate cost benefit to both the units and a huge boost to the mineral conservation by increasing mine life and lesser waste generation.

- The mines management has commissioned EOW (Eye on the wheel) Autoplant to exclude manual intervention of the vehicle movement inside the plant. All the weigh bridges are automated.The movement of all transport vehicles are tracked online. It reduces the cycle time of movement of vehicles for frequent imply weight. All the raw materials and cement trucks are being transported through this system.

- Continuous Online Ambient Air Quality Monitoring stations (CAAQMS), Continuous Emissions Monitoring System (CEMS), Continuous Online Waste Water Quality Monitoring stations is installed at various locations. All the online monitoring systems are connected to MPCB site for capturing real time data. Drone survey of mine lease area has been carried out.

- Real-time production data is monitored continuously including quality, quantity, plant

TPH installed Cross Belt analyzer at the mines office. This has been linked with the Beltweigher and automatic digital XRF analyzer. The real time CBA Data linked with PI system and visible to all engineers which enables the quality, production and other relevant plant performance report.

- More than 2,00,000 Saplings are planted within the lease over 82.24 Ha. area covering matured dump and green belt with 90% survival rate.

- Huge rainwater harvesting and ground water recharging meaures are adopted and Solar Power of 6.4 Mw and Waste Heat Recovery Power Plant of 13.4 Mw is installed.Also initiated process for commissioning floating solar power system of 2.9 Mw in the mines reservoir.

- The mines management has implemented innovations in reduction of explosive consumption by air decking by used plastic bottles.

Best Practices:

- To arrest the dust emissions, atomize mist water spray system is installed at stacker materials transfer points. Further, Mist type water spray is also installed at transfer points in conveyor belts, blast muck pile.

- For dispensing the fuel into vehicles, auto lube system is installed. It reduces the oil spillage and prevent contamination.

- The centrifugal oil cleaning machine is used for cleansing the used oil so that it can be further resued in the machines to increase the life of the oil.

- Real Time softwares are used to monitor the water level and dewatering. Drone survey of mines is being carried out. It helps in monitoring of mining operations as well as gives the current status of reclamation.

- The mines is also organizing mega sports event “Ullasothav' in which tribal women of the area has participated. Further, local women community is being empowered by enhancing their skill by training and marketing under the banner of Vocal for Local.

- The mines is also giving a platform to all employees to share their innovative idea.

Keeping in view the mine's extraordinary efforts for adopting and implementing various innovations into mining operations, it has been awarded with **FIMI Special Mining Innovation Award for the year 2021-22.**

Limestone swapping-zero waste mining

GPS based Machine navigation system

Plastic bottles used for blasting

Limesludge spreading

Limesludge feeding

Drone Survey of mines

Solar power plant

Floating solar plant

Vocal for local skill development initiative

Skill development training

Skill development for women

Games organised for tribal women

SUBH KARAN SARAWAGI ENVIRONMENT AWARD

ORAGHAT IRON ORE MINES - RUNGTA SONS PRIVATE LIMITED

Oraghat Iron ore mines (ML No.182) of Rungta Sons Private Limited is located in Sundergarh district of Odisha. The total lease area of the mine is 82.9 ha and operational since 1982. It is certified with ISO 9001: 2015, ISO 14001:2015, ISO 45001: 2018 and SA 8000: 2014.

The mine management follows sustainability framework comprising of a robust environment policy. Besides implementing all statutory compliances, the mine has adopted best practices on environment management system of international standard. The mine has achieved commendable success in reducing ecological foot print of its ecosystem. It has a dedicated team and also implemented the policy for environmental protection and management.

Unique features and innovative practices adopted by mine:

- The mine is focusing on reutilizing and recycling surface water by utilizing water from rain water harvesting pit, mine pit water, and treated water from STP. This treated water is used for environmental measures such as plantation and water sprinkling purposes. The mine has reduced its specific water consumption for mineral production over the years.

- Automated stationary water sprinkling system along haul road and dry fogging in mineral processing plants have been installed and proved to be effective in fugitive dust control. This has resulted in reduction in water consumption to almost half per square meter of haul road as compared to mobile water sprinkling.

- Mineral ore transporting concrete and partly blacktopped roads have been constructed coupled with wheel washing facility and truck mounted vacuum road sweeper leading to effective and dust free transportation.

Best practices:

- The mine has converted a good percentage of the mined out land into biologically productive land. Inactive dumps are fully stabilized with Geotextile coir mat, broadcasting of grass seeds and native plantation.

- Implementation of site specific wildlife conservation plan and massive plantation of mainly native species have resulted in influx of local faunal species as concluded by direct and indirect evidence.

- Installed solar panel and power consumption of the mines are fulfilled through solar energy. Thus, the mine has been able to reduce its carbon foot print to a considerable extent.

- Hazardous waste is segregated as per Hazardous Waste Management Rules. The

waste is stored with proper storage area and further, it is collected by authorized vendor.

For environment friendly mining practices and efforts towards environment protection, the mine has been awarded with the **Subh Karan Sarawagi Environment Award for the year 2021-22.**

Water sprinkling system at screening plant

RWH at mines

Afforestation on haul roads

Vehicle washing system

Hazardous waste storage

Proper stabilization of dumps

ABHERAJ BALDOTA ENVIRONMENT AWARD

SUKINDA CHROMITE MINE – TATA STEEL MINING LIMITED

Sukinda Chromite Mine of Tata Steel Mining Limited is located in Jajpur district of Odisha. The mine is having lease area of 406 ha including 404.6 ha of for estland and 1.3 ha of non-forestland. The mine has implemented ISO 45001 (Health & Safety Management System), ISO 14001 (Environnent Management System) and ISO 9001(Quality Management System). The mine has adopted various tools and techniques such as Smart Mining, innovation etc. to improve efficiency, reduce adverse impact on environment and community. The mines management is taking adequate steps to achieve environmental goals with a focus on renewable energy, water conservation, biodiversity conservation, safety and waste management.

Unique features and innovative practices adopted by mine:

- **Biodiversity management plan assessed by IUCN:** The mines management has prepared Biodiversity Management Plan for conservation and management of flora and fauna. The biodiversity at project site has been assessed by IUCN. It has 188 species of flora, 30 species of planktons, 16 herpetofauna, 23 species of fish, 88 species of butterflies, 82 bird species, 12 species of mammals. Awareness on biodiversity conservation is being carried out.

- **Waste dump restoration**: The mine has also carried out dump restoration covering an area of 100 Ha. through adopting standard operating procedure for reclamation and rehabilitation by scientifically engineered process of afforestation. Waste dumps are stabilized with proper terracing, benching, retaining wall and garland drains.

- For water conservation and management, the mine has set up STP. The treated water from STP is used for dust suppression and gardening. Water harvesting structures are constructed to capture the rain water and improve the ground water availability.

- **Single window for accessing data related to water management:** Water audit has been conducted and a SaaS platform has been developed that provides a Secure Single Window Access System to the digital data of the entire water infrastructure on parameters.

Best Practices:

- Dust suppression is being carried out on haul roads by 3 km long fixed water sprinklers.

- Green belt development is carried out by mines in areas such as waste dumps, haul roads etc. having survival rate of 90%. The mines have also developed herbal garden and medicinal garden.

For the environment friendly mining practices and efforts towards environment protection, the mine has been awarded with the **Abheraj Baldota Environment Award for the year 2021-22.**

Afforestation on dumps

Initiatives as per Biodiversity Management Plan

Sewage Treatment Plant

Dump stabilization by coir matting

Toe wall and Garland drain

MISRILALL JAIN ENVIRONMENT AWARD

BAILADILA IRON ORE MINE, BACHELI COMPLEX– NMDC LIMITED

Bailadila Iron Ore Mine, Bacheli Complex (Bailadila Deposit-5, Deposit-10 and Deposit-11A) of NMDC Limited is situated in South Bastar, Dantewada district of Chhattisgarh. The mine has a total lease area of 1082.8 hectare (540.05 ha +309.34 ha+233.5 ha for each deposit respectively). The lease areas are falls under Bailadila Reserve Forests of Dantewada Forest Division. The mine has started its operations in 1977. The mine has implemented ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and SA 8000: 2014. It is 5-star rated mine and committed for encouraging the development of environment friendly technologies in line with its Corporate Environmental Policy.

Unique features and innovative practices adopted by mine:

- **Geo-coir textile for plantation:** The mines management has scientifically stabilized waste dumps with Geo-Coir Textile and vegetation of local species. Grass seeds and seeds of fast growing species sprayed over the Geo Coir Textile. The root stock of perennial grasses such as Bamboo grass, Khus etc are planted on the Geo-Textile.

- To utilize the solar energy, 395 KW capacity grid connected Roof Top Solar (RTS) power plants are installed.

- The mine has also implemented of Biodiversity Survey and Conservation Plan. It has also adopted soil and water conservation plan in the core and buffer zone of BIOM, with an expenditure of Rs. 575.51 lakh.

- **Closed conveyor for mineral ore transportation**: The ore from crusher is transported to screening plant for further processing through a system of closed conveyor belts. This system is developed in order to control the dust generation during transportation of ore from one place to another. The conveyor system is stretched from crushing plant to screening plant covering a distance of around 5 km including tunnel of about 2.5 km.

Best Practices:

- Drilling machines are equipped with the provision for wet drilling. Jet sprinklings have been provided at strategic transfer points in crushing plant and screening plant.

- 2 tailing dams have been constructed for the treatment of tailings generated after the wet processing of iron ore in screening plants.

- A dam at Nerli, 8 check dams and 28 check bunds have been constructed across the nala for the treatment of surface run off of the area and to arrest flow of suspended solids flowing through the streams.

- Effluents generated from workshop are treated through Effluent Treatment Plan (ETP), treatment of township effluents in Sewage Treatment Plants (STP), treatment of biomedical waste in double chamber bio-medical waste incinerator is being done.

- In–house motorised cleaning system of air filters of HEMM equipment has been developed to prevent exposure of dust to mechanics.

For the environment friendly mining practices and efforts towards environment protection, the mine has been awarded with **Misrilall Jain Environment Award for the year 2021-22.**

Closed belt conveyor for transporting ore

Stabilized waste dump

Buttress wall

Check dams for preventing water flow

STP of 2 MLD capacity

Harnessing solar energy

GEM GRANITES ENVIRONMENT AWARD

BHADRA IRON ORE MINE- JSW STEEL LIMITED

Bhadra Iron Ore Mine, ML No.007, of JSW Steel Limited is located in Ittanahalli village, Sandur taluk, Ballari District of Karnataka over an extent of 130.53 Ha with an annual production capacity of 1.44 Million Metric Tonnes. The mine has adopted an integrated management policy covering ISO-14001, ISO-9001,SA-8000, ISO-45001 etc. The mine works under a dedicated environment management cell and the roles and responsibilities of each personnel are clearly defined.

Unique features and innovative practices adopted by mine:

- **24 km long conveyor for mineral ore transportation**: A 24 km Main/Trunk Pipe Conveyor (MPC) has been installed for transportation of iron ore. It is eco-friendly transport of ore which helps in saving fossil fuel, reducing dust generations and achieving zero spillage.

- **Digital mine**: Mine Integration System (MIS) has been adopted to capture the real time data from all the mining activities carried out on the field to generate multiple customized management reports digitally. It has Fuel Management System (FMS) which dispenses fuel only to the authorized vehicles, Integrated Lease Management System (ILMS) for grade control and monitoring, Deepbiz for dispatch management, permits authorization etc.

- To promote the use of processed recycled water, JSW has undertaken a project of laying 24 km processed water pipeline for dust suppression and green belt development at mine. This pipeline is likely to be operational in the few months.

- Solar illumination system has been implemented in mine and solar powered Wi-Fi trolleys are deployed as source of network for digital tools.

Best Practices:

- The mine has adopted wet drilling technique by deploying a Hydraulic Drill Machine having wet drilling arrangement which helps to suppress dust at source.

- Controlled blasting technique is in practice at the mine. Delay detonators are used in order to reduce vibration generated in the course of blasting operations. Nonel Initiation System is being used to limit the fly rocks. Ambient air quality is being monitored and the recorded levels of pollutants are well within the NAAQS limits.

- Geotextile has been laid on dump slope(about 6.8 Ha), which reduces impacts of heavy runoff on dump surface. For further stabilization of the slope, grass seeds are sown on the dump which is later followed by a fully-fledged plantation consisting of native species.

- Reclamation and Rehabilitation plan has been implemented proposed by ICFRE and approved by CEC. This includes various Bio-Engineering measures towards stabilization of waste dumps and construction of surface water management structures. Numerous gully plugs have been constructed.

For the environment friendly mining practices and efforts towards environment protection, the mine has been awarded with **Gem Granites Environment Award for the year 2021-22**

Wet drilling at Mine

Fogger type Dust Suppressor

24 km long Pipe Conveyor

Coir-matting on OB dump

Solar Wi-Fi Trolley at mine site

Garland Drain for Dump Management

FIMI SPECIAL ENVIRONMENT AWARD

MORWAD MARBLE MINE – ARORA'S J K NATURAL MARBLES LIMITED

Morwad Marble Mine is a captive mine of Arora's J K Natural Marbles Ltd., located in Morwad village, Rajsamand District, Rajasthan. The mine is having a lease extent of 8.3 ha. having annual production capacity of 0.50 million tons. The mine is committed towards environmental management to achieve best-in-class performance. The mine has a dedicated team for implementing commendable efforts for environmental protection measures in and around the mine lease area.

Unique features and innovative practices adopted by mine:

- Rain Water Harvesting structure is constructed in the mined-out pit over an area of 0.60 Ha. Around 70000 cum/year water is collected through the network of garland drains and earthen check bunds. The collected water is used for dust suppression, green belt etc. This resulted in an increase in agricultural production in nearby villages due to the rise in the ground water level.

- A Biodiversity park with a variety of medicinal and fruit-bearing species is developed. Afforestation is being carried out in workshop areas and on waste dumps with a survival rate of 96%. Post plantation care is also carried out.

Best Practices:

- The mine has installed fixed type of water sprinkler in garden area. Truck-mounted water tankers are used in other areas for dust suppression i.e along haul roads, dumping yards etc. Mining is carried out by using wet drilling and controlled blasting.

- The green belt is developed with more than 15000 nos. of saplings on both sides of the haul roads, the road passing to the waste yard, all along the periphery of mining lease boundary, etc.

- For stabilization of dump slopes, the soil is used for capping of dump, and planted saplings of medicinal, fruit-bearing, herbal plants are on the top soil capped dump. The dump slopes are properly covered with plantations to minimize soil erosion and dust generation. It is carried out by creating toe wall, garland drain, settling pond, and check dams.

- To promote environmental awareness among the employees, villagers, and students, various activities have been undertaken such as rallies, display of hoardings, painting on the walls, article writing competitions for the school children etc.

For the environment friendly mining practices and efforts towards environment protection, the mine has been awarded with **FIMI Special Environment Award for the year 2021-22**

Aerial view of Marble Mine

Loading of Marbles

Waste dump

Beautiful Pond constructed on Dump

Recharging sump near Dumps

Plantation on the both sides of the Road

SITA RAM RUNGTA AWARD FOR SOCIAL RESPONSIBILITY

BAILADILA IRON ORE MINE, KIRANDUL COMPLEX - NMDC LIMITED

Bailadila Iron Ore Mines, Kirandul complex of NMDC Limited is located in South Bastar Dantewada district of Chhattisgarh. Deposit-14 is the oldest mine of NMDC, started in 1968. It is a part of Kirandul Complex, which consists of three mining pits of Dep-14, Dep-11C and Dep-11B. The mines management continues to pursue policies and programmes to deliver long term value to all its stakeholders. It has also invested substantially in the socio-economic development of the local communities, especially near its mining projects.

Unique features and innovative practices adopted by mine:

- **Scholarship for tribal students**: As a part of its educational initiatives for imparting knowledge to tribal students NMDC Kirandul is promoting Shiksha Sahayog Yojana a Scholarship scheme in remote locations affected by Left wing extremism. The mines have established residential schools for tribal children including for those specially-abled and operates a number of scholarship schemes to benefit students pursuing higher education.

- **Hospital on wheels in remote areas:** The mines management is providing free medical treatment to the tribal population, organizing regular medical camps and reaching out to remote areas through its mobile hospitals under 'Hospital on Wheels' scheme.

- **Initiative for Swachh Bharat**: Aimed at achieving the vision of 'Swachh Bharat Abhiyan', the mines management has become a partner in the national movement for clean India as a part of its social responsibility. To enhance open-defecation-free, initiatives like construction of toilet blocks across districts of Bastar Division of Chhattisgarh have been taken up.

- The mine's management has facilitated construction of 1859 household toilets in 16 villages in Dantewada thus making it open defecation-free.

Best Practices:

- The mine's management has skilled the tribal youths hailing from economically backward areas. The mine has also conducted training programmes in Bell metal, Bamboo and Tumba art which are part of traditional skills of tribal community. Local women are engaged in production of vermicompost, mushroom cultivation, dairy project etc. They are also becoming financially independent through these initiatives.

- The mine has taken up various initiatives to provide access to safe drinking water to the peripheral villages by setting up water purification plants, installing hand pumps and enhancing water distribution infrastructure.

- Water Distribution infrastructure is constructed for villages near Bailadila, Chhattisgarh at a cost of Rs. 284 Lakh. The Group water supply scheme to provide clean drinking water through pipelines in 32 villages in Dantewada district is facilitated at a cost of Rs. 6238 Lakh.

Keeping in view the exemplary CSR initiatives for social welfare of local community, the mine has been awarded with **Sita Ram Rungta Award for Social Responsibility for the year 2021-22.**

Agricultural training and equipment to local farmers

Medical facilities for villages- Hospital on Wheels

Installation of hand pump for drinking water

Production of vermicompost by SHG

Dairy constructed under dairy development project

NMDC AWARD FOR SOCIAL RESPONSIBILITY

MANOHARPUR COAL MINE - ODISHA COAL AND POWER LIMITED

Manoharpur Coal Mines of Odisha Coal and Power Limited (OCPL) is located in Manoharpur village in Sundergarh district of Odisha. It is an opencast mechanized mine having area of 1848.3 ha having peak rated capacity of 16 MTPA. The mine is in operation since 2018. The mine has received 5-star rating from Ministry of Coal. The mine is implementing different CSR initiatives through community partnership and social responsibility work which includes improve health and education, reduce inequality and spur economic growth, while working to preserve the environment.

Unique features and innovative practices adopted by mine:

- **Project 'Swayam'*:*** Under this project**,** individuals were provided with trainings/exposure and market linkages that helped them to establish individual and group and increased income. 435 people supported in 33 trades across farm, of farm and non-farm sectors were able to establish their micro enterprises and generating sustainable income.

- **Project 'Sashakt':** Total 05 no. of women Self Help Groups were supported with enterprise promotion and are now involved in mushroom cultivation, strawberry production, spices processing and marketing etc. They have earned revenues worth Rs. 20.20 lakhs by participating in 7 Melas across Odisha since January 2019, with generating a profit of over Rs. 7.28 lakh

- **Safe and Clean drinking water for all:**17 periphery villages connected through pipelines. Water tankers are deployed in 30 villages during the summer season benefitting more than 5000 populations.

- **Project Dhanwantari**: Under this project 600 medicinal plants transplanted in approximately one acre of fallow land where 16 types of medicinal plant species are available.

Best Practices:

- Self-employment through Enterprise promotion under 'Swayam' has impacted in significant increase in income for households i.e. 46% households increased income more than 5 times, 15% household increased their income more than 3 to 5 times, 20% households increased their income more than 1-3 times over their baseline income.

- In skill development and employability, 95 youth from the periphery villages in different trades in ITI extended support in acquiring industry-oriented skills. 40 youth placed in different companies with rest supported under various self-employment schemes are now earning their livelihoods successfully.

- **Health and Nutrition**: Under this project of OCPL, doctors are engaged to provide free consultation and medicines at the doorsteps of households, the local PHC (Public Health Centre) infrastructure and service deliveries are being improved. Awareness programmes were conducted in periphery villages on child malnutrition and anemia among adolescent girls and mother.

Keeping in view the exemplary CSR initiatives for social welfare of local community, the mine has been awarded with **NMDC Award for Social Responsibility for the year 2021-22.**

Strawberry cultivation by women entrepreneurs

Skill training of Youth

Medical facilities to locals

Rehabilitation and Resettlement colony provided by OCPL

Education facilities in nearby villages

Rejuvenation of pond in villages

FIMI SPECIAL AWARD FOR SOCIAL RESPONSIBILITY

KATHARA GRANITE MINE - FORTUNE STONES LIMITED

Kathara Granite Mine of Fortune Stones Limitedis located at Kathara village in Chhatarpur district of Madhya Pradesh. The mine is having lease area of 29 ha with annual production capacity of 60,000 cum. The mine has taken up various CSR initiatives for host community in the areas of safe drinking water, healthcare, quality education, infrastructure development. These initiatives have helped in upliftment of the community and their standard of living.

Unique features and innovative practices adopted by mine:

- The mines management is committed towards conservation of water. For this purpose, 1.5 km long pipeline is being constructed for pumping out mines water to nearby ponds. It has helped in rejuvenation of water body, thereby improving the ground water levels. Desilting and deepening of ponds are being carried out in nearby areas.

- To enhance the quality of education in a holistic way, infrastructure have been provided to nearby schools such as construction of school building, furniture etc. Further, free education is provided to workers' children. The mine also supports villagers financially in various occasions such as marriage, festivals etc.

Best Practices:

- Under healthcare initiatives, the mines management is organising free eye, dental and medical camps in villages for treatment of villagers. A dispensary is also available for local community. 24 hours' ambulance service is provided to villagers at free of cost.

- The mine has also strengthened the community infrastructure such as construction of toilets, supply of drinking water tanks, community halls etc. Further, to promote the use of renewable energy, solar street lights have been installed. It also promotes sports activities in surrounding areas.

Keeping in view the exemplary CSR initiatives for social welfare of local community, the mine has been awarded with **FIMI Special Award for Social Responsibility for the year 2021-22.**

1.5 km pipe line-constructed for water conservation project

Aid in school development project

365 days operational clinic

Marriage Community hall

Medical camps

Financial aid for marriage

RIO TINTO HEALTH & SAFETY AWARD

DAITARI IRON ORE MINE - ODISHA MINING CORPORATION LIMITED

Daitari Iron Ore mine of Odisha Mining Corporation Limited is situated in Keonjhar district of Odisha. The mine has started its operations in 1966 and it is a fully mechanized opencast mine having annual production capacity of 4.5 million tonnes. The mine is certified with Integrated Management System (IMS), Social Accountability (SA) 8000:2014. It is 4- star rated mine by IBM. The mine is committed to provide a safe and healthy working environment and achieving zero harm at workplace.

Unique features and innovative practices adopted by mine:

- Various business excellence initiatives such as Quality Circle (QC), Kaizen, Suggestion Management, 5S and Lean etc along with other digital transformation projects have been implemented in the mines.

- Automatic boom barrier with IoT based SMS is available to avoid idle time. Handheld speed guns have been used to monitor the speed of the trucks. Communication within the mines are carried out with help of radio communicators. Further, Daily Breath Analyzer test is being carried out at entry of persons at mines gate.

- The mine has also introduced mechanism for reporting unsafe act. Further CCTV cameras are installed at multiple locations to check for unsafe act. Breath Analyser test has been conducted for each person entering into mines.

Best Practices:

- Monthly theme based safety activities are being carried out for awareness of workers at mine site. The workers are also rewarded on spot for their safety performance. It helps to motivate them on safety aspects.

- The mines management is giving special emphasis on health & safety by conducting daily safety review meetings at various levels. Quarterly safety audit is being conducted. Suggestion boxes are placed at various locations to receive safety suggestions. Safety posters are displayed on strategic locations.

- At VTC, initial basic classroom on safety training, operational practices and SOPs are explained. VTC is equipped with projector and screen. Refresher trainings are imparted for drivers on Defensive Driving. Daily war room meeting is conducted with discussion on safety.

Keeping in view the mine's outstanding efforts in the area of health and safety performance, the mine has been awarded with the **Rio Tinto Health & Safety Award for the year 2021-22.**

Handheld Speed Guns

Training by External Professional

Safety Features in HEMMs

Rewarding employees for their safety performance

Alcohol test for each person entering mines

Radio communication within mines

HINDUSTAN ZINC HEALTH & SAFETY AWARD

BAPHLIMALI BAUXITE MINE- UTKAL ALUMINA INTERNATIONAL LIMITED

Baphlimali Bauxite Mine is a captive mine of Utkal Alumina International Limited. The mine is located in Rayagada and Kalahandi districts of Odisha state and having lease area 1388.740 ha. The annual bauxite production capacity is 70 lakh tonnes. The mine has adopted various strategies to achieve business excellence to increase the overall productivity, reduce equipment failure and boost employee morale.

Unique features and innovative practices adopted by mine:

- The mine uses emulsion explosive for blasting which is safer than other explosives. Separate vans are used for transportation of Nonels and boosters. The ground vibration is measured after every blasting and high quality Nonels are used for initiation.

- The mine management assesses contractor's safety standards before awarding any contract with the help of Contractor Safety Management System. Periodic review is being carried out through the Contractor Field Safety Audit (CFSA) which pushes the contractors to maintain safety norms during mining operations throughout period of contract.

- The mine has installed 18.1 km long fully covered belt conveyor for transportation of ore to destination with all safety features. It reduces the possibility of road accidents which generally occurs due to movement of trucks on roads. Pull cord switch is provided at conveyor.

Best Practices:

- The mines management has adopted digitalization into mining operations. The safety compliances are managed efficiently on Enablon software. All the unsafe acts, conditions, near misses, incidents and behaviour based safety are reported in this software. Permits, Data management and incident investigation are being carried out by software.

- Lockout-Tagout system has been implemented for energy isolation. Movable chemical earthing is used specially for movable light masts. All the welding machines are having VRD. Lightening arrestors and surge protection devices are fixed at different locations of mines for safety purpose.

- The workers are made aware of all the safety provisions by the mine management. Separate model display rooms, library, 3D animation videos are being used to enhance the practical awareness. H&S theme are celebrated at mines every month on a particular topic. IME/PME is conducted for all the employees.

- HEMMs are fitted with safety features required by DGMS. Special tail end protection is fitted at every dumper. Tyre inflation cage are used to eliminate the tyre blast hazard.

- Vocational trainings are imparted on various H&S aspects. The mines have well equipped Group VTC with internal and external trainer. Safety training, trainings on emergency preparedness are also being given. Regular mock drill has been also conducted.

Keeping in view mine's outstanding efforts in the area of H&S performance, the mine has been awarded with **Hindustan Zinc Health & Safety Award for the year 2021-22.**

Explosive carrying truck

Pull cord switch at conveyor

Specially designed tail end protection

Contractor field safety audit

Safety Committee meeting

IME/PME of employee in hospital

FIMI SPECIAL HEALTH & SAFETY AWARD

MY HOME LIMESTONE MINE - MY HOME INDUSTRIES PRIVATE LIMITED

My Home Limestone Mine is fully mechanized opencast captive mine of My Home Industries Private Limited located at Mellacheruvu and Mandal village, Suryapet district, Telangana having present production capacity 1.95 MTPA. The mine has been striving for continual improvement and implementing H& S innovations into mining operations. The mine has adopted systemic and sustainable mining practices with an objective to achieve safer, healthier, eco-friendly and hazard free work environment.

Unique features and innovative practices adopted by mine:

- The mine has made a unique tool for dismantling and assembling the truck wheel to avoid incidents while working. For safe inflation of tyres at the mine site, mobile tyre inflation cage and fixed tyre Inflation cage are used to avoid any mishappening. Further, tyre disc removing device are used for safely removing disc and ring from tyres to avoid hazards.

- Oil Barrel Handling System has been developed to lift and move the barrels easily in side rooms and loading and unloading of barrels from vehicles placed at a height. This system works electrically and as well as manually to avoid risk in handling of barrels.

- The mine management has developed a unique system for bench edge protection at drilling & blasting area to avoid fall of persons from height while working.

- All the safety features are provided in the HEMM such as auto parking brake have been installed in trucks to avoid accidents while parking vehicles.

Best Practices:

- Regular Pit Safety Committee meetings, safety pledge, demonstration of safe operations, worker to worker training, safety leadership interaction is being carried out. safety audits are conducted by both internal and third party. Further, mock drill is conducted on a regular basis.

- The mine is regularly conducting various competitions on Safety weeks, National safety day, Road safety week, fire safety week etc.

- For boosting the moral of the employees, H&S performance of the mine is published in company magazine. The workers are being praised for H&S efforts by safety performer Award. Workers are rewarded for reporting near-miss incidents.

- The mine is regularly conducting health and safety training and awareness

programme for their workforce. Site-level OHS training adopted and implemented. IME and PME is being carried out for workers.

Keeping in view the mine's outstanding efforts in the area of health and safety performance, the mine has been awarded with **FIMI Special Health & Safety Award for the year 2021-22**

Safety innovation

Routine checks and sanitisation

Safety interactions

Emergency Mock Drill

Regular Mock-Drill for fire fighting

Medical examination & Health Camps for workers

FIMI SPECIAL HEALTH & SAFETY AWARD

GHEWARIA MINES-UDAIPUR MINERALS DEVELOPMENT SYNDICATE PRIVATE LIMITED

Ghewaria Mine of Udaipur Mineral Development Syndicate Private Limited is located in Kotri tehsil of Bhilwara district in state Rajasthan. It is opencast soapstone mine having production capacity of 4,00,000 TPA. The mine is continuously following the best operational practices to ensure zero harm to environment, society and its stakeholders. The mine is accredited by ISO 9001:2015 (QMS) and Code of Responsible Extraction (CORE) version 1.0.

Unique features and innovative practices adopted by mine:

- The mine has set up centralize control room for safety and security during mine operations. All the operations are monitored through CCTV in centralized control room.
- Solar based lights are installed at various mines locations for better visibility during mining operation at night.
- Emergency control room are setup at mines to handle emergency situations. Emergency Response Team (ERT) is deployed and equipped with all necessary emergency tools.
- All safety features are provided in HEMM. ACs are fitted in HEMM cabin for operator comfort.
- SOPs have been prepared for all critical activities after taking inputs from Hazard Identification and Risk Assessment (HIRA). Behavioural based safety training is being imparted to the workers from time to time for improving behavioural aspect.

Best Practices:

- Pit Safety Committee meeting is conducted on regular basis and workers are made aware of existing safety provisions through on-job trainings. Safety related activities such as Tool box talks, Job Safety Analysis, SOP, One Point Lesson etc. imparted to all the working crew.
- Vocational Training Centre (VTC) is established for initial basic classroom training on safety standards. Other trainings such as refresher training on internal safety standards, first aid training, JSA, work permit, 5S, SOP such as mining, electrical, mechanical, instrumentation etc., occupational health & safety management system, integrated management system, behaviour based safety, disaster management training etc are also provided.

Keeping in view the mine's outstanding efforts in the area of health and safety performance, the mine has been awarded with the **FIMI special Health & Safety Award for the year 2021-22.**

Centralize Control Room – Supervision of Mining Activity

AC Cabin in HEMM

Emergency Control Room

VT Centre

Mock Drill

LIST OF PAST WINNERS

FIMI's Golden Jubilee Award for Excellence
(one-time award conferred during 50 years of celebration of FIMI)

2015-16 : Bailadila Iron Ore Mine (Bacheli Complex), NMDC Limited, Dantewada, Chhattisgarh

FIMI's Excellence Award

Bala Gulshan Tandon Award of Excellence

2004-05 : Noamundi Iron Mine, Tata Steel Limited, West Singhbhum, Jharkhand
2005-06 : Bailadila Iron Ore Mine, NMDC Limited, Dantewada, Chhattisgarh
2006-07 : Codli Group of Mines, Sesa Goa Limited, Codli, Goa
2007-08 : Rampura Agucha Mines, Hindustan Zinc Limited, Bhilwara, Rajasthan
2008-09 : Jilling Langalota Iron Ore & Manganese Mine, Essel Mining & Industries Ltd., Odisha
2009-10 : No applicant mine was found suitable
2010-11 : Noamundi Iron Mine, Tata Steel Limited, West Singhbhum, Jharkhand
2011-12 : RKBA Limestone Mines, Ambuja Cements Limited, Junagarh, Gujarat
2012-13 : TRB Iron Ore Mine, Jindal Steel and Power Ltd., Sundargarh, Odisha
2013-14 : Paraswani Limestone Mine, UltraTech Cement Ltd., Chhattisgarh
2014-15 : Rajashree Cement Limestone Mine, UltraTech Cement Ltd., Karnataka
2015-16 : Sukinda Chromite Mine, Tata Steel Limited, Jajpur, Odisha
2016-17 : Noamundi Iron Mine, Tata Steel Limited, West Singhbhum, Jharkhand
2017-18 : Sindesar Khurd Mine, Hindustan Zinc Limited, Rajsamand, Rajastha
2018-19 : Joda East Iron Mine, Tata Steel Limited, Keonjhar, Odisha
2019-20 : T.R.B. Iron Ore Mine, Jindal Steel & Power Limited, Sundargarh, Odisha
2020-21 : Kayad Mine, Hindustan Zinc Limited, Ajmer, Rajasthan

FIMI's Sustainability Award

Tata Steel Award for Sustainable Mining

2017-18 : Bailadila Iron Ore Mine, Bacheli Complex, NMDC Limited, Dantewada, Chhattisgarh
2018-19 : Jajang Iron & Manganese Mine, Rungta Mines Limited, Keonjhar, Orissa
2019-20 : Koira Iron Mine, Essel Mining and Industries Limited, Sundargarh, Odisha
2020-21 : Kovandakurichi Limestone Mine, Dalmia Cement (Bharat) Ltd., Trichy, Tamil Nadu

FIMI's Mining Innovation Award

Vedanta – Sea Goa Mining Innovation Award

2020-21 : Noamundi Iron Mine, TATA Steel Limited, West Singhbhum, Jharkhand

FIMI's Environment Awards

Abheraj Baldota Environment Award

1990-91 : Century Cement Limestone Mine, Century Cement Ltd., Madhya Pradesh
1991-92 : Noamundi Iron Mine, Tata Steel Ltd., West Singhbhum, Jharkhand
1992-93 : Naokari Limestone Mine, Larsen and Toubro Ltd., Maharashtra
1993-94 : Kudremukh Iron Ore Mine, Kudremukh Iron Ore Co. Ltd., Karnataka
1994-95 : Pale Iron Ore Mine, Chowgule & Co. Ltd., Goa
1995-96 : Bhadanpur Limestone Mine, Maihar Cement Limited, Bhadanpur, Madhya Pradesh
1996-97 : Bailadila Iron Ore Project, Deposit-14/11C, NMDC Limited, Dantewada, Chhattisgarh
1997-98 : Bailadila Iron Ore Project, Deposit-5, NMDC Limited, Dantewada, Chhattisgarh
1998-99 : Codli Iron Ore Mine, Sesa Goa Ltd., Goa
1999-00 : Gujarat Ambuja Limestone Mine, Ambuja Cements Limited, Gujarat
2000-01 : Vyasankare Iron Ore Mine, MSPL Ltd., Karnataka
2001-02 : Donimalai Iron Ore Mine, NMDC Limited, Karnataka
2002-03 : Bailadila Iron Ore Project, Deposit-14/11C, NMDC Limited, Dantewada, Chhattisgarh
2003-04 : Bicholim Mines, Dempo Mining Corp. Pvt. Ltd., Goa
2004-05 : Naubasta Limestone Mine, Jaiprakash Associates Limited, Madhya Pradesh
2005-06 : Century Cement Limestone Mine, Century Cement, Raipur, Chhattisgarh
2006-07 : Grasim Limestone Mine, Grasim Cement, Raipur, Chhattisgarh
2007-08 : Oraghat Iron Mine, Rungta Sons P. Ltd., Sundergarh, Orissa
2008-09 : Wadi Cement Limestone Mine, ACC Limited, Dist. Gulbarga, Karnataka
2009-10 : Noamundi Iron Mine, Tata Steel Limited, West Singhbhum, Jharkhand
2010-11 : Aditya Limestone Mines, UltraTech Cement Limited, Chittorgarh, Rajasthan
2011-12 : Sanquelim Group of Iron Ore Mines, Sesa Goa Limited, Bicholim, Goa
2012-13 : No applicant mine was found suitable
2013-14 : Kayad Lead Zinc Underground Mine, Hindustan Zinc Limited, Ajmer, Rajasthan
2014-15 : Srikurmam Mineral Sands Mine, Trimex Sands Private Ltd., Srikakulam, Andhra Pradesh (in the name of Hindustan Zinc Environment Award)
2015-16 : Injepalli Limestone Mine, Kesoram Industries Ltd., Gulbarga, Karnataka
2016-17 : Narmada Cement Mine, UltraTech Cement Ltd., Amreli, Gujarat
2017-18 : Vikram Cement Limestone Mine-II, UltraTech Cement Ltd., Neemuch, Madhya Pradesh

2018-19 : Sanindpur Iron & Bauxite Mines, Rungta Sons (P) Ltd., Sundergarh, Orissa
2019-20 : Pakri Barwadih Coal Mining Project, NTPC Limited, Thriveni Sainik Mining Pvt. Ltd. (MDO), Hazaribagh, Jharkhand
2020-21 : Ubbalagundi Iron Ore Mine, JSW Steel Limited, Ballari, Karnataka

Gem Granites Environment Award

1990-91 : No applicant mine found eligible
1991-92 : Boula Chromite Mine, Ferro Alloys Corporation Ltd., Keonjhar, Orissa
1992-93 : Codli Iron Ore Mine, Sesa Goa Ltd., Codli, Sanguem, Goa
1993-94 : Rampura - Agucha Mine, Hindustan Zinc Ltd., Udaipur, Rajasthan
1994-95 : Joda West Manganese Mine, Tata Iron and Steel Co. Ltd., Keonjhar, Orissa
1995-96 : Donimalai Iron Ore Mine, N.M.D.C. Ltd., Dist. Bellary, Karnataka
1996-97 : Manikgarh Cement Limestone Mines, Manikgarh Cement, Maharashtra
1997-98 : Panchpatmali Bauxite Mine, National Aluminium Co.Ltd., Koraput, Orissa
1998-99 : Noamundi Iron Mine, Tata Iron & Steel Co. Ltd., West Singhbhum, Jharkhand
1999-00 : Kudremukh Iron Ore Company Ltd., Chickmagalur, Karnataka
2000-01 : Naubasta Limestone Mine, Jaypee Rewa Cement Ltd., Rewa, Madhya Pradesh
2001-02 : Joda East Iron Ore Mine, Tata Iron and Steel Co. Ltd., Orissa
2002-03 : Arasmeta Limestone Mines, Lafarge India Ltd., Chhattisgarh
2003-04 : Durgmanwadi Bauxite Mines, INDAL, Maharashtra
2004-05 : Belkapahar Calcite & Wollastonite Mines, Wolkem Industries Ltd., Rajasthan
2005-06 : Rampura-Agucha Mine, Hindustan Zinc Ltd., Bhilwara, Rajasthan
2006-07 : Sukinda Mines (Chromite), Indian Metals & Ferro Alloy Ltd., Jajpur, Orissa
2007-08 : Mainpat Bauxite Mine, Bharat Aluminum Co. Ltd., Sarguja, Chattisgarh
2008-09 : Devapur Limestone Mines, APMDC Limited, Dist. Adilabad, Andhra Pradesh
2009-10 : Zawar Group of Mines, Hindustan Zinc Limited, Udaipur, Rajasthan
2010-11 : Century Cement Limestone Mines, Century Textiles & Industries Ltd., Raipur, Chhattisgarh
2011-12 : Kheratarla Wollastonite Mine, Wolkem Industries Limited, Sirohi, Rajasthan
2012-13 : Panchpatmali Bauxite Mine, NALCO Ltd., Koraput, Odisha
2013-14 : Joda East Iron Mine, Tata Steel Limited, Keonjhar, Odisha
2014-15 : Sukinda Chromite Mine, Tata Steel Limited, Sukinda, Odisha
2015-16 : Nawabpet-Talamanchipatnam Limestone Mine, Dalmia Cement (Bharat) Ltd., Kadapa, A.P.
2016-17 : Morwad Marble Mine, Arora's JK Natural Marbles Limited, Udaipur, Rajasthan
2017-18 : Century Cement Lst. Mine, Century Textiles and Industries Limited, Raipur, Chhattisgarh

2018-19 : Jilling Langalota Iron Ore & Manganese Mine, Essel Mining & Industries Ltd., Odisha
2019-20 : Bhusar Bauxite Mines, Hindalco Industries Limited, Lohardaga, Jharkhand
2020-21 : Adityana Limestone & Marl Mine, Saurashtra Cement Limited, Porbandar, Gujarat

Misrilall Jain Environment Award

1990-91 : Navalim Dongor Mine, P.D. Kudchadkar, Goa
1991-92 : Kotah Stone Mine, Associated Stone Industries Ltd., Rajasthan
1992-93 : Jhiroli Magnesite Mine, Almora Magnesite Ltd., Uttar Pradesh
1993-94 : Gumgaon Mine, Manganese Ore (India) Ltd., Maharashtra
1994-95 : Tikuri Road Side Bauxite Mine, ACC, Madhya Pradesh
1995-96 : No applicant mine found eligible
1996-97 : Laxmipura Limestone Mine, Associated Stone Industries Ltd., Rajasthan
1997-98 : B.B.H.Mines, Mineral Enterprise Pvt. Ltd., Karnataka
1998-99 : Dongri Buzurg Mine, Manganese Ore (India) Ltd., Maharashtra,
1999-00 : Jilling Langalota Iron & Manganese Mine, EMIL, Orissa
2000-01 : Kashlog Limestone Mine, Gujarat Ambuja Cements Ltd., Himachal Pradesh
2001-02 : Panchpatmali Bauxite Mine, NALCO., Orissa
2002-03 : Tummalapenta Limestone Mine, Larsen & Toubro Ltd., Andhra Pradesh
2003-04 : Basantnagar Limestone Mine, Kesoram Cement, Andhra Pradesh
2004-05 : Kudremukh Iron Ore Mine, Kudremukh Iron Ore Company Ltd., Karnataka
2005-06 : Jajang Iron & Manganese Mines, Rungta Mines Limited, Keonjhar, Orissa
2006-07 : Kasia Iron and Dolomite Mines, Essel Mining & Industries Ltd., Keonjhar, Orissa
2007-08 : No mine found eligible
2008-09 : Naubasta Limestone Mine, Jaiprakash Associates Ltd., Dist. Rewa, Madhya Pradesh
2009-10 : Kovaya Limestone Mine, Ultra Tech Cement Ltd., Amreli, Gujarat
2010-11 : Narmada Cement Mines, UltraTech Cement Limited, Amreli, Gujarat
2011-12 : Sugala Limestone Mine, Ambuja Cements Limited, Junagarh, Gujarat
2012-13 : Injepalli Limestone Mine, Kesoram Industries Ltd., Vasavadatta Cement, Karnataka (in the name of Hindustan Zinc Environment Award)
2013-14 : Naokari Limestone Mine, UltraTech Cement Ltd. (in the name of Hindustan Zinc Environment Award)
2014-15 : Noamundi Iron Mine, Tata Steel Limited, West Singhbhum, Jharkhand
2015-16 : John Mine, R. Praveen Chandra, Chitradurga, Karnataka
2016-17 : PEKB Opencast Coal Mine Project, Adani Enterprises Limited (RVUNL), Chhattisgarh
2017-18 : Unchabali Iron & Manganese Mines, Smt. Indrani Patanik, Keonjhar, Orissa
2018-19 : Chotia Coal Mines, BALCO, Korba, Chhattisgarh
2019-20 : Devadari Iron Ore Mine, JSW Steel Limited, Ballari, Karnataka
2020-21 : Kathautia Opencast Coal Mine, Hindalco Industries Limited, Palamau, Jharkhand

Subh Karan Sarawagi Environment Award

1990-91	:	No applicant mine found eligible
1991-92	:	No applicant mine found eligible
1992-93	:	Adityana Chalk Mine, Shri Arjan Pancha, Gujarat
1993-94	:	No mine found eligible
1994-95	:	Kathpal Chromite Mine, Ferro Alloys Corpn. Ltd., Orissa
1995-96	:	G.F.S.R. Manganese Mine, J.K. Minerals, Madhya Pradesh
1996-97	:	Peda Dongor Iron Ore Mine, Mrs. Jeevan Raia Porob Bhaticar, Goa
1997-98	:	No applicant mine found eligible
1998-99	:	ACC Gagal Limestone Mine, ACC Ltd., Himachal Pradesh
1999-00	:	Raymond Cement Limestone Mine, Raymond Cement., Madhya Pradesh
2000-01	:	Joda West Manganese Mines, Tata Steel Limted, Orissa
2001-02	:	Velguem/Surla Iron Ore Mine, V.M. Salgaocar & Bro. Pvt. Ltd., Goa
2002-03	:	Ilmenite Mines, Indian Rare Earths Ltd., Tamil Nadu
2003-04	:	Madukkarai Limestone Mine, ACC., Tamil Nadu
2004-05	:	Jilling Langalota Iron & Mn. Mines, Essel Mining and Industries Ltd., Orissa
2005-06	:	Bamebari Manganese Mine, Tata Steel Limited, Keonjhar, Orissa
2006-07	:	Siljora-Kalimati Mn. & Iron Mines, M/s Mangilall Rungta, Keonjhar, Orissa
2007-08	:	No applicant mine found suitable
2008-09	:	Pale Iron Ore Mine, Chowgule & Company Pvt. Ltd., North Goa Dist., Goa
2009-10	:	No applicant mine was found suitable
2010-11	:	Vikram Cement Limestone Mines, UltraTech Cement Limited, Neemuch, Madhya Pradesh
2011-12	:	Rajashree Cement Limiestone Mine, UltraTech Cement Limited, Gulbarga, Karnataka
2012-13	:	No applicant mine found eligible
2013-14	:	Maheswari Mineral Laterite Mine, Maheswari Mineral, Hyderabad, Telangana
2014-15	:	Tummalapenta Limestone Mine, UltraTech Cement Limited, Kurnool, Andhra Pradesh
2015-16	:	Balda Block Iron Mines, Serajuddin & Co. Keonjhar, Odisha
2016-17	:	Koira Iron Mine, Essel Mining & Industries Limited, Sundargarh, Odisha
2017-18	:	Kallakkudi Limestone Mines, Dalmia Cement (Bharat) Limited, Trichy, Tamil Nadu
2018-19	:	Diamond Patharia Limestone Mines, Diamond Cements, Damoh, Madhya Pradesh
2019-20	:	Iron Ore Mine, Vedanta Limited, Chitradurga, Karnataka
2020-21	:	Narmada Cement Mine, Ultratech Cement Limited, Amreli, Gujarat

Jury Special Environment Award

2013-14	:	Reddipalayam Limestone Mine, UltraTech Cement Limited, Ariyalur, Tamil Nadu
2017-18	:	Rough Stone Quarry (Unit-I), Thriveni Earthmovers Private Limited, Krishnagiri, Odisha

2018-19 : Ramrama Manganese Mine, M/s. A.P. Trivedi Sons, Balaghat, Madhya Pradesh
2018-19 : Pudupalayam North Limestone Mines, The Ramco Cements Limited, Ariyalur, Tamil Nadu
2020-21 : Usenabad South Limestone Mine, The Ramco Cements Limited, Ariyalur, Tamil Nadu

FIMI's Social Responsibility Awards

Sita Ram Rungta Award for Social Responsibility

1995-96 : Naokari Limestone Mine, Larsen and Toubro Ltd. Maharashtra
: Zawar Group of Mines, Hindustan Zinc Ltd., Rajasthan
1996-97 : Noamundi Iron Mine, Tata Iron and Steel Co. Ltd., West Singhbhum, Jharkhand
: Basantanagar Limestone Mines, Kesoram Cements, Andhra Pradesh
1997-98 : Panchpatmali Bauxite Mines, National Aluminium Co. Ltd., Orissa
: Bailadila Deposit-5, National Mineral Development Co. Ltd., Andhra Pradesh
1998-99 : Kashlog Limestone Mine, Ambuja Cements Ltd., Himanchal Pradesh
: Rajashree Cement Limestone Mine, Rajashree Cements, Karnataka
1999-00 : Joda West Manganese Mine, Tata Iron & Steel Co. Ltd., Orissa
: Bailadila Iron Ore Project, Deposit-14/11 C, NMDC Ltd., Dantewada, Chhattisgarh
2000-01 : Naokari Limestone Mines, Larsen & Toubro Ltd., Maharashtra
: Codli Group of Mines, Sesa Goa Ltd., Goa
2001-02 : Mines Division, Hindalco Industries Ltd., Jharkhand
2002-03 : Donimalai Iron Ore Mine, NMDC Limited, Karnataka
2003-04 : Jilling Langalota Iron & Manganese Mines, EMIL, Orissa
2004-05 : Joda East Iron Mine, Tata Steel Limited, Orissa
2005-06 : Bailadila Iron Ore Mine, NMDC Limited, Dantewada, Chhattisgarh
2006-07 : Rajpura Dariba Mines, Hindustan Zinc Limited, Rajsamand, Rajasthan
2007-08 : Kasia Iron & Dolomite Mines, Essel Mining & Industries Limited, Keonjhar, Orissa
2008-09 : Aditya Limestone Mines, Grasim Industries Limited, Chittorgarh, Rajasthan
2009-10 : Devapur Limestone Mines, APMDC Limited, Dist. Adilabad, Andhra Pradesh
2010-11 : Bunder Project, Rio Tinto Exploration India Pvt. Ltd., Chhatarpur, Madhya Pradesh
2011-12 : Kovaya Limestone Mine, UltraTech Cement Limited, Amreli, Gujarat
2012-13 : Bodai Daldali Bauxite Mine, BALCO Ltd., Kawardha, Chhattisgarh
2013-14 : Panchpatmali Bauxite Mine, NALCO Limited, Koraput, Odisha
2014-15 : Maheswari Mineral Laterite Mine, Maheswari Mineral, Hyderabad, Telangana
2015-16 : Jamul Cement Works, ACC Limited, Durg, Chhattisgarh

2016-17 : Bailadila Iron Ore Mine (Kirandul Complex), NMDC Limited, Dantewada, Chhattisgarh
2017-18 : PEKB Opencast Mine, Adani Enterprises Limited (RVUNL), Sarguja, Chhattisgarh
2018-19 : Mangampet Barytes Mines, APMDC Limited, Kadapa, Andhra Pradesh
2019-20 : Rajashree Cement Limestone Mine, UltraTech Cement Limited, Gulbarga, Karnataka
2020-21 : Baphlimali Bauxite Mine, Utkal Alumina Int. Limited, Rayagada & Kalahandi, Odisha

NMDC Award for Social Responsibility

2001-02 : Century Cement Limestone Mines, Chhattisgarh
2002-03 : Maihar Cement Limestone Mines, Maihar Cement, Madhya Pradesh
2003-04 : Kudremukh Iron Ore Mine, Kudremukh Iron Ore Comp. Ltd., Karnataka
2004-05 : Jajang Iron & Manganese Mines, Rungta Mines Limited, Orissa
2005-06 : Sukinda Chromite Mine, Tata Steel Limited, Sukinda, Jajpur, Orissa
2006-07 : No mine found eligible
2007-08 : Sanindpur Iron & Bauxite Mines, Rungta Sons (P) Ltd., Sundergarh, Orissa
2008-09 : Vikram Cement, Grasim Industries Limited, Neemuch, Madhya Pradesh
2009-10 : No applicant mine was found suitable.
2010-11 : Vyasanakere Iron Ore Mines, MSPL Limited, Hospet, Karanataka
2011-12 : No applicant mine was found suitable
2012-13 : No applicant mine was found suitable
2013-14 : No applicant mine was found suitable
2014-15 : Singsar Limestone Mine, Ambuja Cements Limited, Junagadh, Gujarat
2015-16 : Sindesar Khurd Mine, Hindustan Zinc Limited, Rajsamand, Rajasthan
2016-17 : RAS II Limestone mine, Ambuja Cement Limited, Pali, Rajasthan
2017-18 : Jajang Iron & Manganese Mines, Rungta Mines Limited, Keonjhar, Odisha
2018-19 : Bhusar Bauxite Mine, Hindalco Industries Limited, Lohardaga, Jharkhand
2019-20 : Sanindpur Iron & Bauxite Mines, Rungta Sons Pvt. Limited, Sundargarh, Odisha
2020-21 : Oraghat Iron Mines, Rungta Sons Pvt. Limited, Sundargarh, Odisha

Jury Special Award for Social Responsibility

2018-19 : Bhimdeval Limestone Mine, GHCL Limited, Gir-Somnath. Gujarat
2019-20 : Ramanadurga Iron Ore Mine, Sri Kumaraswamy Mineral Exports Pvt. Ltd., Ballari, Karnataka
2020-21 : Ramrama Manganese Mine, M/s. AP Trivedi Sons, Balaghat, Madhya Pradesh

FIMI's Health & Safety Awards

Rio-Tinto Health & Safety Award

2011-12	:	No applicant mine was found suitable
2012-13	:	RKBA Limestone Mine, Ambuja Cement Ltd., Gir-Somnath, Gujarat
2013-14	:	Rajashree Limestone Mine, UltraTech Cement Limited, Gulbarga, Karnataka
2014-15	:	Narmada Cement Mine, UltraTech Cement Ltd., Amreli, Gujarat
2015-16	:	Wadi Limestone Mine, ACC Limited, Kalaburgi, Karnataka
2016-17	:	APAK Limestone Mine, Dalmia Cement (Bharat) Limited, Ariyalur, TamilNadu
2017-18	:	Jamul Cement Works Limestone Mine, ACC Limited, Durg, Chhattisgarh
2018-19	:	Naokari Limestone Mine, Ultratech Cement Limited, Chandrapur, Maharashtra
2019-20	:	Kovandakurichi Limestone Mines, Dalmia Cement (Bharat) Ltd., Trichy, TamilNadu
2020-21	:	Rama Iron Ore Mine, JSW Steel Limited, Ballari, Karnataka

Hindustan Zinc Health & Safety Award

2014-15	:	Sindesar Khurd Mine, Hindustan Zinc Limited, Rajsamand, Rajasthan (in the name of Abheraj Baldota H&S Award)
2015-16	:	Digwadih Colliery, Jharia Division, Tata Steel Limited, Jamadoba, Jharkhand
2016-17	:	Sukinda Mines (Chromite), IMFA Limited, Jajpur, Odisha
2017-18	:	Bhelantand Amalgamated Colliery, Tata Steel Limited, Dhanbad, Jharkhand
2018-19	:	6 & 7 Pits Colliery, Jharia Division, Tata Steel Limited, Jharkhand
2019-20	:	Mahagiri Mines (Chromite), Indian Metals and Ferro Alloys Limited (IMFA), Jajpur, Odisha
2020-21	:	Sukinda Mines (Chromite), Indian Metals and Ferro Alloys Limited (IMFA), Jajpur, Odisha

Jury Special Health & Safety Award

2017-18	:	Mangampet Barytes Mine, APMDC Limited, Kadapa, Andhra Pradesh

FIMI AWARD SCHEME 2022 – 23

FIMI's EXCELLENCE, SUSTAINABILITY, MINING INNOVATION, ENVIRONMENT, SOCIAL RESPONSIBILITY AND HEALTH & SAFETY AWARDS

CATEGORY OF AWARDS

I. FIMI EXCELLENCE AWARD – 1 Award

I. Bala Gulshan Tandon Award of Excellence

This award was instituted in 2004-05 by Shri. G. L. Tandon, the country's first mining engineer to have been conferred the prestigious Padma Bhushan Award, in memory of his wife Smt. Bala Gulshan Tandon. The award is designed to recognize excellence in the overall performance – economic, social, environmental and health & safety of the applicant mine. In the overall scheme of assessment, dimensions which are germane to excellence such as commitment, self-evaluation, transparency, governance etc. are also given due and significant importance.

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

II. FIMI SUSTAINABILITY AWARDS – 2 Awards

i. Tata Steel Award for Sustainable Mining

ii. Hindalco – Aditya Birla Award for Sustainable Mining

The award was instituted in 2017-18 to recognize excellence in biodiversity conservation and sustainability performance of mines. In the overall scheme of assessment, aspects such as business approach towards sustainability, integration of biodiversity with mining, risk assessment, etc. are also given due and significant importance.

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Sustainability Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

III. FIMI MIMING INNOVATION AWARD – 1 Award

i. Vedanta – Sesa Goa Mining Innovation Award

The award is designed to recognize and honour individual mines for their exemplary efforts in the field of innovation in mining. This Award has been recently institutedin the year 2020-21 and is open for application to all categories of mines.

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Mining Innovation Award" since 2020-21
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

IV. FIMI ENVIRONMENT AWARDS – 4 Awards

i. Subh Karan Sarawagi Environment Award

ii. Abheraj Baldota Environment Award

iii. Misrilall Jain Environment Award

iv. Gem Granites Environment Award

Mining has a direct implication on the natural environment. Environmental compliance and management therefore play a prominent role in mining activity. In order to encourage mineral conservation, preservation of bio-diversity and maintain ecological balance around mining activity all over the country, FIMI has instituted four Environment Awards. These awards are designed to recognize the mines which have made significant and exemplary efforts towards environmental conservation and management in mines.

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Environment Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

V. FIMI SOCIAL RESPONSIBILITY AWARDS – 2 Awards

i. Sita Ram Rungta Award for Social Responsibility

ii. NMDC Award for Social Responsibility

FIMI believes that mere propagation of conventional corporate social responsibility is more like following others. Obtaining social license to operate is a goal that requires leadership. It is a matter of not just following best practices but of innovating to best practices. After all, brand reputation and creation of stable and conducive social environment are needs not only for trade and investment but for better standard and quality of life of all the stakeholders, specially the community around. FIMI, therefore, instituted two Social Responsibility Awards to encourage the leaders to forge ahead and pull up the followers to do better. These two awards are designed to recognize the mines adjudged to have best contributed to the general upliftment and well-being of their various stakeholders while addressing broader sustainability concern.

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Social Responsibility Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)

VI. FIMI HEALTH & SAFETY AWARDS – 2 Awards

i. Rio Tinto Health & Safety Award

ii. Hindustan Zinc Health & Safety Award

Health & safety of workers engaged in mining activities and communities around mines has been getting increasing attention of societies and stakeholders. To specifically attract attention and focused efforts of mining industry towards this important area, FIMI has introduced these Awards to recognize good efforts and initiatives made by the mining industry in taking care of health & safety of their employees and to inspire others to do the same. The ultimate objective of these Awards is to create awareness and implement strategies for improving occupational health & safety management standards so as to focus on development, management and awareness of occupational health & safety by minimizing adverse hazards and risks.

Eligibility: Anymines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Health & Safety Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

General Conditions for all the Awards

- **Any mine with major compliance issues and/or having had fatal accidents within the last three financial years (i.e. since 2020-21) is not eligible for any of the Awards.**

- **Exploration projects and Mines under development will not be considered for these awards.**

SUMMARY

Category	Award
I. Excellence Award	Bala Gulshan Tandon Award of Excellence
II. Sustainability Awards	Tata Steel Award for Sustainable Mining
	Hindalco – Aditya Birla Award for Sustainable Mining
III. Mining Innovation Award	Vedanta – Sesa Goa Mining Innovation Award
IV. Environment Awards	Subh Karan Sarawagi Environment Award
	Abheraj Baldota Environment Award
	Misrilall Jain Environment Award
	Gem Granites Environment Award
V. Social Responsibility Awards	Sita Ram Rungta Award for Social Responsibility
	NMDC Award for Social Responsibility
VI. Health & Safety Awards	Rio Tinto Health & Safety Award
	Hindustan Zinc Health & Safety Award

Last date for submission of Award Applications is 28th February, 2023.

ASSESSMENT PROCESS

The entire scheme of FIMI Awards has been designed to eliminate, to the extent possible, any subjectivity that might creep into the assessment process. The matter of choosing eventual award winners is the exclusive domain of the Jury.

To assist the Jury Committee Members, desktop assessment of the duly filled in applications are evaluated by independent assessors through an in-house scoring system.

The overarching filter relates to compliance with all the applicable laws and regulations. Non-compliant applicant mines are not considered for any award. Similarly, if any fatal accident has taken place in a mine within the assessment period (last 3 financial years i.e. 2020-21, 2021-22 & 2022-23) it will be considered as ineligible.

Evaluation/Assessment of application form is restricted to the performance parameter for the category of awards for which applicant has applied. However, compliance to various laws, listed in the application document, is mandatory for everyone, irrespective of the category of award one is applying for.

USB/CD/DVD containing photographs and video clips relevant to the Award and showing important features of the mine will also be used as supporting evidences of your answers.

The aggregated scores by the independent assessors are then averaged and normalized through a consensus meeting.

Separate lists of applicant mine for each category of award i.e. Excellence; Sustainability; Mining Innovation; Environment; Social Responsibility and Health & Safety Awards of applicant mines are prepared in the descending order of their scores, and then presented to the Jury Members to decide the cut offs for short-listing the mines.

In case of Excellence Award, Sustainability Award and Mining Innovation Award, site assessment will be carried out for shortlisted mines depending upon the COVID situation in the country.

The shortlisted mines for other categories such as Environment, Social Responsibility and Health and Safety Award, will be required to make presentation before the Jury committee for selecting the final awardees, however, the site visit will be undertaken only, if so desired by the Jury.

Scores, with supportive evidences and justifications in respect of all the shortlisted applicants, shall be presented to the Jury for selecting the Award Winners.

GUIDELINES AND APPLICATION FORMAT

I. General Guidelines

1. The application document is divided into seven sections:

Section No.	Section Name
Section A	General Information and Statutory Compliance
Section B	Economic Performance
Section C	Biodiversity & Sustainability Performance
Section D	Mining Innovation Performance
Section E	Environment Performance
Section F	Social Performance
Section G	Health & Safety Performance

2. Guidelines for sections to be filled for different awards:

Award(s)	Sections to be filled
Excellence Award	Section A,B, E, F and G
Sustainability Award	Section A and C
Mining Innovation Award	Section A and D
Environment Award	Section A and E
Social Responsibility Award	Section A and F
Health and Safety Award	Section A and G

3. Application form is attached at the end of this booklet; it can also be downloaded from our website: www.fedmin.com (under "FIMIs Award Scheme' heading).

4. All the questions/points in the application document, for respective awards, are required to be filled. Provide quantitative answer / result wherever possible with relevant photographs, wherever possible. If any document (approval) attached is in any other language (English & Hindi), a translation should be provided.

5. The application should be accompanied by a USB/CD/DVD containing photographs and video clips relevant to the Award and showing important features of the mine.

6. Copies of approvals / clearances / permission / violation / show-cause notices must be submitted wherever required.

7. The shortlisted mines for all the categories of awards other than Excellence Award, Sustainability Award and Mining Innovation Award category will be required to make presentation before the Jury committee for selecting the final awardees. In case of Excellence Award, Sustainability Award and Mining Innovation Award, site assessment will be carried out for shortlisted mines, while in other categories of awards the site visit will be undertaken only, if so desired by the Jury.

8. All the information and documentation provided by the applicants shall be kept strictly confidential and shall be used only for the purpose of selecting Award Winners. The best practices adopted by the mine will be showcased in the larger interest of the industry in the FIMI's News Bulletin, only after written prior permission of the competent person of the mine.

9. Applications, complete in all aspects, should be submitted in spiral bound form (avoid loosely threaded compilation of document) in **Duplicate** (two copies) along with required supporting documents and should reach the Federation of Indian Mineral Industries (FIMI) Office, addressed to the ***Secretary General – FIMI, FIMI House, B-311, Okhla Industrial Area, Phase-I, New Delhi-110 020***, latest by 28th February, 2023 along with payment, as mentioned below, towards 'Application fee for FIMI Awards'.

10. Soft copy of the application must be sent to smi@fedmin.com

Category		For FIMI Members	For Non-Members
For Award of Excellence or Award of Sustainability or Award of Mining Innovation		Rs. 40,000	Rs.50,000
For All Other Awards	For Mines ≥ 50ha	Rs. 30,000	Rs. 40,000
	For Mines < 50ha and / or Minor Mineral Mines	Rs. 20,000	Rs. 30,000

11. GST is applicable @18% extra on the application fee.

12. The mines shortlisted by the Jury for on-site assessment shall have to bear actual travel, boarding, lodging and incidental expenses of the assessors.

13. The payment shall preferably be made by RTGS/NEFT (details below):

Bank Name	:	State Bank of India
Bank Account Name	:	Federation of Indian Mineral Industries
Bank Account No.	:	30049272942
Bank Type	:	C/A Account
RTGS/NEFT	:	SBIN 000 4298
Bank Address	:	Commercial Branch, Nehru Place, New Delhi- 110 019

Or

By Demand Draft in favour of '**Federation of Indian Mineral Industries**', payable at **New Delhi**, to be sent at:

Federation of Indian Mineral Industries
FIMI House,
B-311, Okhla Industrial Area, Phase – I
New Delhi – 110 020
Tel.: (011) – 26814596

Kindly note our **GST No. 07AAATF0348Q1ZG**

14. In case a mine intends to apply for more than one award, in addition to the Section-A - General Information & Statuary compliance, it should fill in the relevant section for the particular Award being applied for. It may be noted that separate fee, as applicable, has to be deposited for the number of awards being applied.

Schedule for FIMI's Award Scheme, 2022 – 23

1. Last date of submission of Award Application – 28th February, 2023
2. Award Assessment Process – April to May, 2023
3. Communication to Applicant mines – June, 2023
4. Award Ceremony at the time of FIMI AGM – July/August, 2023

II. Section-wise Guidelines

1. Section – A : General Information and Statutory Compliances

Part I – General Information

a. Relates to general information about the applicant's organization and the mine site for which the application is specifically made.

b. Specify clearly at S.No.1 of this section as to which Award the application has been submitted for.

c. Although no marks have been allotted to any of the questions in this section, it is used by the examiners and Judges in application review, including site visit, to understand your organization's environment, relationships, influence and challenges, as presented in the questions and organizational profile note.

Part II – Statutory Compliances

a. Relates to compliance with all the applicable laws, Acts and Regulatory requirements. The applicant may add further information in respect of compliance with other relevant Acts or Regulatory requirements for which no direct questions have been asked.

b. Applicants are requested to fill this Section carefully and factually with details and documentary support wherever required.

c. If applicant think that a particular question/point is not applicable to the mine, write "Not Applicable" and clearly mention why.

d. In states where SPCBs grant Consolidated Consents and Authorization (CCA), applicants need not submit separate details under relevant separate headings.

2. Sections – B, C, D, E, F, G : Economic, Biodiversity & Sustainability, Mining Innovation, Environment, Social, Health & Safety Performance

a. The six sections B, C, D, E, F &G : comprise of questions, whose answers shall be assessed and evaluated as objectively as possible through a rigorous scoring system for short-listing the potential Award winners.

b. In scoring system, each section shall carry a specific weightage, as indicated against the section.

c. Applicants must answer all the questions in the applicable section (s). If any of the questions is not applicable to the respective applicant, please mention the reason for it.

d. Answer to each question in these sections should be as comprehensive as possible and should be furnished with supporting evidence, and outcome. Additional sheets may be used, if required.

e. Wherever years are not specified, information is asked for only last three financial/working years (i.e. 2019- 20, 2020-21, 2021-22). Applicants are free to provide information beyond past 3 years if considered relevant and important.

FIMI AWARDS 2022 – 23

APPLICATION FORMAT

SECTION-A: GENERAL INFORMATION AND STATUTORY COMPLIANCES

PART – I: GENERAL INFORMATION

1. Name of the Award applied for :
2. Name of lease holder :
3. Name of Mine :
4. M.L. No. :
5. Mineral(s) mined :
6. Location of mine :
7. Date of commencement of mining :
8. Lease area (details to be given in the following format)

Type of Land	Area under Lease (Hectares)	Area Broken Open or Under Working (Hectares)
Forest land		
Non-forest land		
Total Area		

9. Salient features of mine including its geology etc. (not more than 1000 words)
10. Method of working (Tick √) : Opencast / Underground / Both
11. a) Type of operations (Tick √) : Mechanized / Semi-mechanized / Manual
    b) List the equipment & machinery used (with broad specifications)
    c) Any innovative practices need to be highlighted with relevant photographs
12. Production (details to be given mineral-wise in the following format)

Year	Mine Capacity (Tonnes Per Year)	EC Capacity (Tonnes)	Production (Tonnes)	Remarks
2019-20				
2020-21				
2021-22				

13. Total manpower in Operations (as on date):

Year	Direct	Contract	Total
As on date			

14. Details of Fatal Injury, if any:

Year	Fatal injury in the mine	If Yes, provide details thereof	No. of cases of notifiable diseases (Please provide the details thereof)
2020-21	Yes/ No		
2021-22	Yes/No		
2022-23	Yes/No		

15. Star-Rating awarded in the last reporting year, if any:

16. Any Accredited Certification of mine for (please tick √ whichever is appropriate):

a) Quality Management System (ISO 9001) : Yes / No

b) Environmental Management System (ISO 14001) : Yes / No

c) Occupational Health & Safety Management System (ISO 18001) / (ISO 4500, 45001) : Yes / No

d) Social Accountability International (SA 8000) : Yes / No

e) Energy Audit undertaken by the mine : Yes / No

f) Member of Sustainable Mining Initiative : Yes / No

g) Any other certification lessee wishes to furnish

17. Details of awards received earlier, including any FIMI awards:
(Name & Year of Award, Award conferred by)

18. Details (Name, designation, address, e-mail, mobile number) of

a) Owner/ Agent :

b) Mines Manager :

c) Contact person :

19. Any other relevant information the applicant wishes to furnish.

PART – II : STATUTORY COMPLIANCES

Please tick (√) or fill, whichever is applicable.

1	Payment of all applicable mandatory taxes, royalties, DMF and NMET contribution, GST on royalty, levies, cess, fees, etc., to both State and Central Governments are upto date	Yes / No
2	MMDR Act 1957; MCR 2016 and MCDR 2017 a) Mining lease valid upto b) Validity period of latest Mining Plan / Scheme of Mining approved by IBM	Date Date
3	Occupational Safety, Health and Working Conditions Code, 2020 and rules thereunder a) Obtained Permission for deep hole blasting & Use of HEMM b) Obtained Common Boundary Working Permission c) Exemption under prohibition of employment of contract labour (if applicable)	Yes / No/ NA Yes / No/ NA Yes / No/ NA
4	Forest Clearance under Forest (Conservation) Act, 1980	Obtained / Under process/ NA
5	Environment (Protection) Act, 1986 a) Environment Clearance under EIA Notification, 2006 b) Permission under CRZ Notification, 1991 or CRZ Notification, 2011 or CRZ Notification, 2019	Obtained / Under process / NA Obtained / Under process / NA
6	Has there been any implication of the following Acts? a) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 b) The Provisions of the Panchayat (Extension to the Scheduled Areas) Act 1996 c) Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (Land Acquisition Act, 2013) (If Yes, provide details)	Yes / No Yes / No Yes / No
7	Authorization received under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016?	Obtained / Under process/ NA

8	Clearance under Wild Life (Protection) Act, 1972	Obtained / Under process/ NA
9	Consent To Operate (CTO) under Air (Prevention & Control of Pollution) Act, 1981 & Water (Prevention & Control of Pollution) Act, 1974	Obtained / Under process/ NA
10	Obtained Permission for Ground water withdrawal from Central Ground Water Authority (CGWA)	Yes / No
11	Drone survey carried out under Sub-Rule 5 of Rule 31A of MCDR 2017 and submitted to IBM	Yes / No
12	Obtained permission and licenses under Explosive Act, 1951 for Magazine, Explosive transport vehicles and manufacture of site mix explosives?	Yes / No / NA
13	Implementation of Rehabilitation and Resettlement policy of the State Government, if applicable.	Yes / No / NA
14	Has the mine or company been issued any Show-Cause / Violation Notices / Prohibitory notices by DGMS? (If Yes, provide details along with compliance actions taken)	Yes / No
15	Has there been any instance of any penal provisions being invoked against the mine under any of the above Acts/Rules in last 3 years? If Yes, provide details.	Yes / No

UNDERTAKING:

I state that

I have reviewed the information provided by my organization in this application and confirm this is to be correct and update.

We understand that this application will be reviewed by a group of assessors. Should our mine be selected for a site visit, we agree to host the site visit and to facilitate an open and unbiased examination.

I agree, on behalf of my organization, to abide by the conditions mentioned in the guidelines and accept that the decisions of the Jury will be final.

I certify that the mine/organization complies to all administrative, statutory and legal provisions (terms and conditions) attached to lease deed, various grants /clearances/approvals/consents etc.

Date: ___/___/____

(Authorized Signatory)

Name:

Designation:

SECTION-B: ECONOMIC PERFORMANCE (1000 Points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

1. BUSINESS DEVELOPMENT AND PRODUCTIVITY (200 points)

a) Furnish the following data regarding mine production:

Year	Mine capacity (Tonnes per year)	EC Capacity (Tonnes)	Production (Tonnes)	Turnover (in Rs. lakhs)
2019- 20				
2020-21				
2021-22				

b) Outline the major improvements in productivity and profitability of the mine and substantiate with statistics, tables, charts, graphs etc.

c) Outline the value addition to the extracted ore/minerals by the way of adopting Crushing/ Screening/ Beneficiation/ Washing/ Downstream process etc.and provide the economic benefit of the same.

2. SYSTEMATIC EXPLORATION (100 points)

Outline the geology, exploration carried, updated reserves as per UNFC, software used for resource estimation, future exploration programmes, threshold and cutoff grade for resource estimation and any other related information and any significant outcomes in the past 3 years.

3. MINE PLANNING AND MONITORING MINE OPERATIONS (100 points)

Outline the effective mine planning (mention if any software is used and its implementation achieved and its implementation to achieve reduced stripping ratio), optimum recovery of ore and efforts to achieve highest safety and health indicators. Innovations in reducing mining costs can also be illustrated. Mention about the

monitoring system such as GPS/drones/satellite imagery/ERP (Enterprise Resource Planning) being used.

4. MACHINERY UTILISATION AND MAINTENANCE (100 points)

Outline the uniqueness of the mine adopted in deploying machineries for special purpose, optimal use of machinery (provide statistics like machine-wise availability, utilization, its productivity and energy efficiency for the past 3 years). Highlight the advanced practices towards preventive and predictive maintenance of machinery, etc.

5. INNOVATION AND RESEARCH & DEVELOPMENT (100 points)

a. Outline how mine/company has started adopting digital technologies to reduce cost, ensure work safety and improve its mining operation. How it contributes at various stage of mining process from exploration to transportation of the ore?

b. Outline the R&D facilities in respect of

- Use of sub-grade minerals in the mine or any commercial utilization of associated minerals.

- Cost optimization measures (such as machinery capacity selection, shovel-dumper combination, R&D on trial basis etc.)

- Reducing the environmental footprint of the mine (substantiate with relevant photographs, wherever required)

- Expenditures made for R&D over past 3 years together with significant outcomes of R&D.

6. BUSINESS GROWTH AND RISK MANAGEMENT (100 points)

Outline how company is developing its strategy for its business growth (by adding new projects), business diversification (investing in diversified mining projects or diversified businesses), managing risks (variation in logistics / truck / freight rates and mode of transport, variations in threshold limits, variations in gangue minerals contents, variation in demand & supply), other business related risks, sustainability and its future planning.

7. EFFORTS TOWARDS ZERO WASTE MANGEMENT (100 points)

Outline how company is utilizing waste generated in the mine for market, sale, other use of commercial benefit and alternate use. Elaborate how it is exploring opportunities to utilize wastes generated in the mine and pursuing economic activities such as developing market for overburden, use of tailings, recycling of oil, etc. Also outline the activities to promote recycling and reuse in the mine. (Please elaborate the reduction of waste at source, recycling & reuse of waste).

8. ENERGY MANAGEMENT (100 points)

Outline how company is targeting energy efficiency over past three financial years by way of increase in fuel efficiency (provide statistics of fuel consumption per tonne of production and also compare the specific fuel consumption of each machine for the past 3 year), use of renewable energy wherever feasible and possible, reducing the energy requirements by innovative methods and process re-engineering and any other means. Indicate whether the mine has undertaken energy audit in the past few years.

9. STAKEHOLDERS ENGAGEMENT AND PUBLIC REPORTING SYSTEMS (100 points)

Outline the practice and process in place to identify, prioritize and engage key stakeholders to address concerns pertaining to sustained economic well-being of the mine, method of engagement with stakeholders and any related information. Focus on the business risk related issues to stakeholders especially investors, employees, suppliers, government agencies and community likely to be impacted. Also outline if there are any public reporting system physically at the mine or online on website.

SECTION-C: BIODIVERSITY & SUSTAINABILITY PERFORMANCE (1000 points)

A. BIODIVERSITY ASPECTS (400 points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Sustainability Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

1. BIODIVERSITY MANAGEMENT POLICY (50 Points)

a) Is there a commitment in terms of Policy/Directives from company's senior management on Biodiversity Conservation and management? If yes, please highlight its key features.

b) Are roles and responsibilities clearly defined to take policy commitment to the ground level?

c) Is there any commitment to No Net Loss or Net Positive Impact? Provide the details.

d) Provide details on the formulation of Biodiversity Management Plans and Wildlife conservation plan (if applicable) for the area.

2. RISK ASSESSMENT PROCEDURE (100 Points)

a) Provide brief information about baseline data regarding biodiversity (information regarding flora and fauna species prior to the project, various ecosystem services)

b) Has the mine assessed the risks to biodiversity due to mining in the area? If yes, provide details of risks identified along with remediation measures.

c) Is there any species of special conservation status (WPA Schedule II and IUCN

RED list) found in and around area of operation of mining company? If yes, please list the species.

d) Is/are mining company's current or future operations falling in areas whose development may result in loss of critical habitats, World Heritage Sites or Protected Areas?

e) Is there any assessment done for addressing social and environmental impacts of mining on natural resources dependent livelihoods, wherever applicable?

3. INTEGRATION OF BIODIVERSITY WITH MINING (100 Points)

a) Describe how the mine monitors its footprint on biodiversity and reviews its efforts to conserve biodiversity? Does the mine conduct any independent review by experts?

b) Mention the annual budget earmarked for implementation of the biodiversity conservation management plan for the last 3 years.

Year	Budget Allocated (in Rs. Lacs)	Utilization (in Rs. Lacs)	Funds Utilised (Percentage)
2020-21			
2021-22			
2022-23 Till date			

c) Does the mine/company have a public reporting system for its biodiversity conservation efforts. If yes, please provide details thereof.

4. IMPLEMENTATION OF BIODIVERSITY CONSERVATION MEASURES (100 Points)

a) Highlight best practices adopted by the mine for conserving biodiversity in and around the lease area.

b) Also mention any specific interventions made by the mine to prevent damage to biodiversity in the region. (E.g. – fire-fighting system to tackle forest-fires, awareness programmes, etc.)

c) What are the measures adopted by the mine to protect endangered/threatened species (flora and fauna), wetlands, etc.?

d) Has the mine allowed strips/land of native vegetation within mining lease as biodiversity hotspots, and reconstructed fauna habitats using rocks, logs etc. from areas being cleared for mining? If yes, please furnish the details.

5. BIODIVERSITY AWARENESS PROGRAMME AND STAKEHOLDER ENGAGEMENT (50 Points)

Describe efforts made by the mine/company to engage with stakeholders (communities, Government bodies, NGOs, knowledge partners, etc.) to promote awareness towards biodiversity conservation. It may include efforts through hosting events, programmes for the host community, school children, organizing camps, part of the training curriculum, etc.

B. SUSTAINABILITY ASPECTS (600 points)

6. BUSINESS APPROACH TOWARDS SUSTAINABILITY (150 Points)

Please provide information on the following:

- Formation of corporate sustainability team and sustainability vision, mission, strategy and policy, etc. of the organization.
- Identification of sustainability related risks and targets (if any) for the mine.
- Guidelines followed for Sustainability reporting of mine – Is it through Integrated reporting or as a separate sustainability report or as a separate section in the Annual Report or only being published on website.
- Company's participation/involvement in national and international forums.
- Engagement with local communities to understand the mines' actual and potential positive and negative impacts.
- Engagement with suppliers on sustainability issues/ whether due diligence done while selecting the vendors/ whether bidding is made accessible to local vendors.
- Compliance to SA8000standard in any form.

7. ENVIRONMENTAL PERFORMANCE (150 Points)

a) Briefly outline the environmental management system at the mine (policy,

organizational structure for environment management, mechanism and implementation, etc.)

b) Briefly outline how the mine monitors and manages its impacts on each of the following:

i. Air Quality
ii. Surface Water – Run-off and Effluent discharge, etc.
iii. Ground Water – NOC from CGWA/ CGWB, groundwater recharge measures, rainwater harvesting, etc.
iv. Noise & Vibration
v. Dump Management – dump design, stabilization, reclamation, avoidance of slope failure, etc.
vi. Disposal of Hazardous wastes
vii. Afforestation – plantation methods, use of native species, survival rate, etc.

c) Please provide information on the following:

i. Use of digital/ innovative technology for gainful and scientific extraction/ beneficiation of mineral resources.
ii. Initiatives taken for reducing water and energy consumption in the mines and associated plants.
iii. Outline the steps undertaken by the mine for progressive reclamation of the dumps.
iv. Management of topsoil, subgrade minerals, tailings, slimes or ash (whichever is applicable) (a) generation, storage and utilization
(b) % area of leasehold used for handling these materials.
v. Details of mined-out area reclaimed and stabilized (i.e. converted into final land use as mentioned in approved Mine Plan).
vi. Measuring of direct and indirect GHG emissions, if carried out.
vii. Measure undertaken to eliminate single use plastic (SUP) in and around the mines premises.

8. SOCIAL PERFORMANCE (150 Points)

a) Briefly outline the CSR management system at the mine (policy, organizational structure for CSR, mechanism, identification of community needs, implementation, etc.).

b) List out the major initiatives by the mine that demonstrates its commitment towards the local community
- Recognizing and respecting culture & heritage of local communities.
- Supporting non-mining livelihood options
- Upgradation of local skill base.

c) List out the major initiatives by the mine that demonstrates its commitment towards its workforce:
- Motivating and empowering employees.
- Employee participation in innovation, enhancing productivity, implementation of policies, etc.
- Skill development of both employees and contract workers
- Grievance redressal mechanism
- Conduct of employee satisfaction surveys

d) What are the plans/efforts by the mine to ensure socio-economic sustenance of the host community after closure of mining in the area?

9. HEALTH & SAFETY PERFORMANCE (150 Points)

a) Briefly outline the Health & Safety management system at the mine (policy, organizational structure, mechanism, implementation, etc.).

b) List the H&S indicators monitored by the mine and provide their details for the last three financial years (2019- 20 to till date).

c) Outline the initiatives by the mine to
- Identify H&S risks and hazards
- Improve H&S culture at the mine
- Impart H&S related training to employees and contract workers

d) Outline the mechanism at the mine for investigating accidents/unsafe incidents and preventing similar incidents from happening in future.

e) Briefly mention about the emergency response plan at the mine site.

SECTION-D: MINING INNOVATION PERFORMANCE (1000 points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Mining Innovation Award" since 2020-21
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

1. COMPANY'S COMMITMENT TOWARDS INNOVATION (100 points)

a) Is there a commitment in terms of Policy/Directives/Guidelines from Company's senior management / leadership on adopting innovation in the mining business? If yes, please highlight its key features?

b) Are roles and responsibility defined in the Policy/Directives/Guidelines for proper implementation at ground level?

c) Is there a specific approach / architecture for driving the innovation across the business (organization strategy to encourage employees to share new ideas and suggestions and how these ideas are converted into positive improvements /innovations)?

2. TECHNOLOGICAL INNOVATION (200 points)

a) Outline the various technological innovation adopted by the mine such as automation and digitization, remote operating centers/ tele-operations, use of artificial intelligence, autonomous vehicles and equipments. Please mention if any other technological innovation implemented by mine.

b) Please provide the details (in figures/data) regarding improvement in operational efficiency in mining operation by implementing above technological innovations.

c) Describe the positive outcomes observed due to such innovation such as health & safety related incidents, equipment utilization, downtime and equipment failure, operational productivity or any other? Please provide the data wherever possible.

3. ENVIRONMENTAL INNOVATION (200 points)

a) Outline the innovative steps taken to reduce environment footprint and improve conservation in the following:

(i) Innovative efforts towards clean energy adoption and reducing GHG emissions (such as generation of solar energy, wind energy, use of electric vehicles/HEMM, energy efficient devices, use of bio-diesel/biogas, advanced environment monitoring system). Please mention if any other initiatives undertaken.

(ii) Has the mine/company made innovative efforts towards biodiversity conservation (such as conservation efforts for certain species, controlling forest-fire, preventing human-wildlife conflict & habitat fragmentation, adopting traditional ecological conservation knowledge, environmental awareness)? Please mention if any other initiatives undertaken.

(iii) Innovative efforts for reclamation and rehabilitation (R&R) of mined area (such as 3-tier plantation, use of seed balls for seed dispersal, geo-coirs, vetiver grass plantation, landscaping, pisciculture, horticulture or any other livelihood generation activities on such land). Please mention if any other initiatives undertaken.

(iv) Innovative efforts towards water conservation and management (such as recycling mine water for drinking or process use, mapping and recharging groundwater, efforts to reduce water evaporation in mine roads or pits etc). Please provide data wherever possible. Please mention if any other initiatives undertaken.

(v) Innovative efforts towards air pollution mitigation and prevention (such as utilizing advanced dust monitoring system, dust suppression system or any other). Please mention if any other initiatives undertaken.

b) List out the positive outcomes observed due to environmental innovation at the mine in the following :

(i) Briefly explain improvements observed in biodiversity, energy saving, air quality improvement, soil quality or any other environmental aspects.

(ii) Briefly explain that how does the innovation helps in reducing GHG emissions. Provide the details as follows:

Year	Specific Diesel Consumption (kl/tonne)	Specific Electricity Consumption (kw/tonne)
2019- 20		
2020-21		
2021-22		

Year	Area Afforested (ha)	Survival Rate (%)	Species Planted
2019- 20			
2020-21			
2021-22			

(iii) Provide factual data regarding ambient air quality monitoring for last 3 years (Mention PM10, PM2.5, SO_x and NO_x parameters)

4. SOCIAL INNOVATION (150 points)

a) Outline the innovative steps taken to improve socio-economic status of local community in the following areas. What are the positive outcomes for community? Please provide supporting data with relevant photographs for the following items:

- Livelihood support
- Promoting education
- Healthcare services
- Generating employment opportunities for locals
- Community engagement
- Conserving cultural and traditional Value
- Sustainable mine tourism
- Any other

Year	Project Name	Project Cost	No. of Beneficiaries

b) How the mine management has adopted a unique innovative way to support community during crisis? List out the efforts / crisis response provided by the mine/ company (monetary/non-monetary) in the last 3 years.

c) Does the livelihood support to host community help in generating income? If yes, please provide the following details:

Project	Avg. income/person/month

d) Describe how social innovation has helped the mine/company to change its perception among community/society? Any reward/recognition from regulatory authority?

5. INNOVATIVE EFFORTS IN THE FOLLOWING: (150 points)

a) **LOGISTICS**

i. Outline the various logistics innovation adopted by the mine/company (such as conveyor system, road, railway, slurry pipeline or any other, please mention).

ii. Highlight the positive outcomes observed due to logistics innovation such as commercial benefits, operational efficiencies, managing uncertainty or any other. Please provide data wherever possible.

b) **PRODUCT INNOVATION**

i. Outline the innovative steps adopted by the mine to use sub-grade, low grade minerals. Please mention if any other initiatives undertaken.

ii. Briefly mention how R&D activities are carried out to recover useful components from mine waste.

iii. Expenditure made for R&D over past 3 years with significant outcomes of R&D.

c) **SUPPLY CHAIN SUSTAINABILTY**

i. List out the innovative initiatives by the mine in its procurement model. Please mention if any other initiatives undertaken.

ii. Describe how does the mine/organization encourage suppliers / customers / business partners to collaborate in inclusive innovation.

iii. Mention the positive outcomes from implementing such innovative steps.

6. COMPETENCIES, TRAINING AND SKILL DEVELOPMENT (100 points)

a) Highlight the innovative steps being taken to train the workforce (such as training on simulators, audio-visual training, industrial tours, etc.). Also, mention that how innovately is the training imparted for job enrichment, personal productivity enhancement etc.

b) How the mine is skilling the local workforce and employing them in mining operations after training? Please provide data.

Year	No. of trainee completed training	No. of trainee employed in mining
2019- 20		
2020-21		
2021-22		

c) Please mention if any other initiatives undertaken.

7. INNOVATION CULTURE AND CROSS SECTORAL PARTNERSHIP (100 points)

a) Outline the initiatives for encouraging innovation culture within the employees. How does it ensure that employee's contribution to innovation are implemented and their ideas are recognized and rewarded?

b) How is the mine/company engaging with industry expert/academia/think-tanks for feedback and further improvement in mining processes/operations?

c) Does the mine look at related industries innovation and implement the same in their process? If yes, please mention:

- How it is implemented?
- How it is helping to improve the performance?

d) Does the company/mine engage or work with startups/innovative companies to bring innovation in mining operations. Please give details

SECTION-E: ENVIRONMENTAL PERFORMANCE (1000 Points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Environment Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

1. ENVIRONMENT MANAGEMENT SYSTEM (100 points)

a) Briefly outline the Environmental Management System (Policy, organizational structure for environmental management, mechanism and implementation of the system)

b) Provide approximate budgeted and actual expenditure on environmental management over the last 3 years.

2. TOP SOIL MANAGEMENT (100 points)

a) Mention how the top soil is collected, stored and utilized at the mine. Outline the efforts made to conserve the top soil.

b) Provide the details as follows:

Year	Quantity Generated (in metric tonnes)	Quantity Stored (in metric tonnes)	Quantity Utilized (in metric tonnes)
2019- 20			
2020-21			
2021-22			

3. AIR QUALITY MANAGEMENT (100 points)

a) Briefly mention how air quality is managed at the mine and the systems in place? Outline the steps/measures to prevent and mitigate air pollution w.r.t. the following:
- Drilling and Blasting
- Haulage within mines
- Transportation of ore beyond lease
- Beneficiation Process
- Storage of minerals / waste material
- Any innovative methods (Highlight with relevant photographs)

b) Briefly mention how air quality is monitored at the mine? Provide details of Environmental monitoring station if established. Provide factual data regarding Ambient Air Quality monitoring for the last 3 years (Mention the details of PM_{10}, $PM_{2.5}$, SO_X and NO_X parameters)

4. WATER MANAGEMENT (100 points)

a) Provide factual data regarding water consumption at the mine for the last 3 years.

Year	Total Consumption (cu.m.)	Specific consumption (cu.m. per tonne of ore)	Quantity recycled (cu.m.)	Source of Water
2019- 20				
2020-21				
2021-22				

b) Have the mine operations intersected or likely to intersect ground water table? If yes, please provide management system for the same.

c) How mine drainage system is managed to control the runoff and the methods adopted for controlling water pollution in the mine. (Provide details of construction of garland drains, gully plug, check/silt dam, settling ponds and mode of final discharge, details of treatment facility provided, dimensions wherever applicable)

d) Briefly mention how water quality is monitored at the mine and the frequency of surveys? (Provide latest report of inlet and outlet parameters)

e) Outline if any efforts are made for rain water harvesting, if yes, substantiate with the details and results achieved by the rainwater harvesting structures.

5. NOISE AND VIBRATION CONTROL (100 points)

a) NOISE: Mention the source of Noise generation, frequency of Noise Surveys, availability of monitoring equipment; and steps taken to control noise.

b) VIBRATION: Mention the source of Vibration generation, frequency of Vibration Surveys, availability of monitoring equipment; and steps taken to minimize the adverse impacts of ground vibration and air blast.

6. WASTE MANAGEMENT, INCLUDING HAZARDOUS WASTE (100 points)

a) Outline the system of waste/OB dumping at the mine.Provide the detailed dump configuration (include no. of terraces, bench slope, area covered, etc).

b) Details of stabilization of waste/OB dumps to be given in the following format:

Total Area occupied by Dump(s) (Hectares)	Area Stabilized (Hectares)	Percentage

c) Highlight the steps taken for stabilization of static dumps (Provide details of techniques used such as Geo-coir mat, Vetiver, Miyawaki, etc)

d) Highlight the steps taken to avoid slope failure, rolling of boulders and runoff washing from edge of dumps in active dumps (inlay structure have been maintained or not)

e) List the hazardous wastes at the mine and briefly mention how these are managed and disposed off.

7. MANAGEMENT OF SUBGRADE MINERALS (100 points)

a) STACKING: Outline how subgrade mineral is stacked in the mine.

b) Indicate the percentage of subgrade mineral in the mine, quantities of subgrade mineral generated and stored.

c) UTILIZATION: List the efforts made, including R&D, for utilization of subgrade minerals.

8. RECLAMATION AND REHABILITATION OF MINED AREAS (100 points)

a) Outline the reclamation and rehabilitation procedure adopted - The method of final mine closure, its planning, implementation, area already reclaimed, effectiveness of reclamation etc,

b) What indicators have been selected to measure the success of rehabilitation and reclamation effort?

9. AFFORESTATION (100 points)

a) Furnish the details regarding afforestation within ML area for the last 3 years.

Year	Area Afforested (Hectares)	Total saplings planted	Survival Rate (%)	Major species planted
2019- 20				
2020-21				
2021-22				

b) Outline the post-plantation care, future afforestation plans within lease and in surrounding neighborhood including nearby villages, measures for protecting and conservation of biodiversity and wildlife.

c) Mention the use of inoculation techniques to introduce microbe community to improve soil quality either to disintegrate rocks or improve soil fertility or to remove toxic elements or any/all of them, use of invertebrate community to improve soil quality; attract pollinators; 3-tier plantation etc., Efforts for ecological restoration and maintaining biodiversity may be explained.

d) Mention briefly the steps taken to upgrade general aesthetic beauty in the lease area and surrounding area.

10. CLIMATE CHANGE MITIGATION, ADOPTION OF ENVIRONMENT FRIENDLY TECHNOLOGIES AND AWARENESS GENERATION (100 points)

a) Has mine management taken any initiatives towards mitigating climate change such as reduction in GHG emissions, promoting the use of renewable energy sources, energy efficiency measures, etc.? If so, please mention briefly.

b) Highlight the major technologies adopted in last 2 years to prevent and/or control pollution, reduce power and water consumption, utilize wastes and by-products etc.

c) Outline the activities undertaken by the mine management for spreading environmental awareness among the employees as well as surrounding communities.

d) Highlight the initiatives undertaken to phase-out Single Use Plastic (SUP) in and around the mines premises.

SECTION-F: SOCIAL PERFORMANCE (1000 Points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Social Responsibility Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since2020-21)

1. CORPORATE SOCIAL RESPONSIBILITY POLICY (100 points)

a) Does the company have a formal corporate social responsibility policy (Y/N)
(If yes, attach a brief note highlighting how the key areas of work are identified, how this policy is being implemented and involvement of the beneficiaries)

b) Furnish the following data:

Year	Budget allocated on CSR activities(Rs. Lakh)	Utilization (Rs. Lakh)	% of utilization
2019-20			
2020-21			
2021-22			

2. CSR PLANNING PROCESS (100 points)

Mention about the CSR planning tools (such as village level micro planning, community meeting, stakeholder survey, stakeholder workshop, inputs from government, etc). Please highlight the community engagement process for planning and implementation of CSR.

3. SERVICES PROVIDED TO SURROUNDING TOWNS / VILLAGES (100 points)

(Note: Activities/services provided for employees should be excluded)

	Services (provide during last year)	Work done in (Rs. Lakh)
(a)	**Town planning and infrastructural development, roads, etc.**	
(b)	**Provision of clean drinking water**	
(c)	**Housing**	
(d)	**Transport facilities**	
(e)	**Public health amenities and family planning**	
(f)	**Disease control services**	
(g)	**Education**	
(h)	**Generation of employment e.g. formation of cooperatives** (number of self-employment generated to be indicated separately)	
(i)	**Training and assistance for animal husbandry, sericulture, pisciculture, improved methods of agriculture, traditional crafts for self-employment, employable skills** (artisan training)	
(j)	**Cooperatives and fair price shops**	
(k)	**Greening of areas outside of leasehold, parks and gardens** (survival rate of plantation to be indicated)	
(l)	**Use of non-conventional energy sources**	
(m)	**Any other, please mention**	

4. EXPLAIN MEASURES TAKEN FOR THE FOLLOWING CSR ACTIVITIES (200 points)

a) Strengthening Watershed Management
b) Partnership with the agricultural sector
c) Assess and upgrade the local skills base
d) Sustainable livelihood opportunities
e) Infrastructure development in and around mine areas
f) Support programs to reduce childhood malnutrition and hunger
g) Drinking water facilities and Public sanitation
h) Educational development
i) Health care facilities
j) Add anything you wish to furnish

5. Provide socio-economic status of surrounding communities? (100 points)

Provide details before and after CSR intervention (Periodical survey / Third party study carried out for pre CSR intervention and post CSR intervention to understand its effectiveness) – Especially on issues related to male and female ratio, literacy/illiteracy rate, employment ratio (gender wise), health status, etc.

6. What measures are taken for the improvement of socio-economic status of underprivileged communities? (100 points)

7. EMPOWERING EMPLOYEES (100 points)

a) List the initiatives by the mine management towards building/enhancing skills of employees at various levels (including contract workers).

b) Outline the initiatives to ensure employee's participation in innovation as well as implementation of policies, management of the mine.

8. RESETTLEMENT AND REHABILITATION ENDEAVOURS (100 points)

List all the statutory obligations and specific initiatives by the mine towards resettlement and rehabilitation of displaced population, if any. (Elaborate on statutory commitments with timeline for implementation, its target and achievements, initiations that are more than statutory obligation, etc.,)

9. CRISIS RESPONSE AND MANAGEMENT (100 points)

Mention about how company is committed for its social responsibilities in crisis situations in the region of its operation, state and country especially like earthquake, flood, drought, fire, other natural calamities.

Focus on last three years' responses of the company in terms of monetary/non-monetary forms for crisis. (Please note that Emergency Preparedness Plan of mine need not to be mentioned here and it is related to managing the impact of crisis situations at/in mine level).

SECTION-G: HEALTH & SAFETY PERFORMANCE (1000 Points)

Eligibility: Any mines fulfilling following conditions will be eligible to apply:

- which have not won "FIMI's Excellence Award" in last three financial years (i.e. since 2019- 20)
- which have not won "FIMI's Health & Safety Award" in last three financial years (i.e. since 2019- 20)
- no fatalities in last three financial years (i.e. since 2020-21)
- should have overall good health conditions of mine workers
- should not have any report of worker suffering from notifiable disease

1. H&S MANAGEMENT SYSTEM AND POLICY (100 points)

a) Does your mine have a formal Occupational Health and Safety policy?
(If yes, attach a brief note highlighting the following:
- key objectives and targets of this policy
- organizational structure for H&S, and
- how it is implemented at the mine.

2. H&S PERFORMANCE (100 points)

a) List the H&S performance indicators (such as TIFR, LTIFR, SI, NMI, etc) used by your mine and briefly describe the rationale for selecting these indicators.

b) Innovative implementations related to H&S

c) Briefly outline the efforts taken by the mine management for continuing mining operation amidst COVID-19 pandemic. How has COVID-19 affected the mining operations? How it is managed? Describe in brief about the COVID-19 relief measures undertaken for the villagers.

3. SAFETY MANAGEMENT SYSTEM (100 points)

a) Outline the Safety Management System (SMS) as recommended by DGMS in respect of –
- Implementation of SMS (DGMS Tech Circular No.13 of 2002)
- Safety Audit to reduce accidents (DGMS Tech Circular No. 8 of 2009) and
- Review of SMS (DGMS Tech Circular No. 02 of 2011)

b) Provide details about Pit Safety Committee and its meetings, Workmen Inspector, 3rd party audit and review of SMS, Emergency Preparedness Plan, etc.

4. H&S STATISTICS AND RESULTS (100 points)

a) Furnish the following:

Employee Health

Year	Total No. of man days worked	Total sickness absence days		Major causes of sickness absence	Corrective/ preventive actions taken
		Days	%age of man days absence		
2020-21					
2021-22					
2022-23 Till date					

Employee Safety

Year	No. of Fatalities	Total Injury Frequency Rate (TIFR)	Lost Time Injury Frequency Rate (LTIFR)	Severity Index (SI)	Near Miss Incidents (NMI)
2020-21					
2021-22					
2022-23 Till date					

b) For the last 3 financial years, mention the number and nature of cases of
- Notifiable diseases as per third schedule of Occupational Safety, Health and Working Conditions Code, 2020
- Occupational diseases (other than notifiable diseases)

5. H&S CULTURE (100 points)

a) Outline the initiatives by the mine management towards creating a safer and healthier working environment. Also mention any specific measures adopted in the last 3 years to address the H&S risks and hazards. Mention about all statutory provisions implementations, additional implementations and innovations adopted.

b) Is there any mechanism/programs to encourage employees at the mine site for improved H&S culture and alter employee behavior to work safely? (If so, please provide a brief). This may include competition among employees regarding health & safety knowledge and reward system to employees, contract-workers, etc. (Mention how workplace health is promoted and provide details about counseling programs

6. H&S FACILITIES (100 points)

a) Outline the medical related facilities such as training center, first aid center, ambulance facility, etc. provided by the mine management

b) Mention details about safety related facilities such as vocational training center, full time instructor, use of training simulators, etc. provided by the mine management

7. H&S RECORDS (100 points)

a) Provide details in respect of schedules of initial / periodical medical exams of employees including contractors, maintenance of their medical record, periodical health surveillance, return submitted to statutory authorities all training records imparted.

b) Please provide the details regarding number of patients visited in hospital during last three years?

8. H&S TRAINING (100 points)

a) Describe the training as per vocational training rules, 1966 such as initial basic training, job oriented special training and periodical refresher training

b) Mention trainings imparted regarding job enrichment, soft skill development, behavioral change, personal productivity enhancement, healthy practices, etc., for the employees

c) Describe the H&S related training program (type of training, duration, frequency, etc.) for:

- Employees
- New inductees
- Contract-workers and service providers
- Transporters, etc.

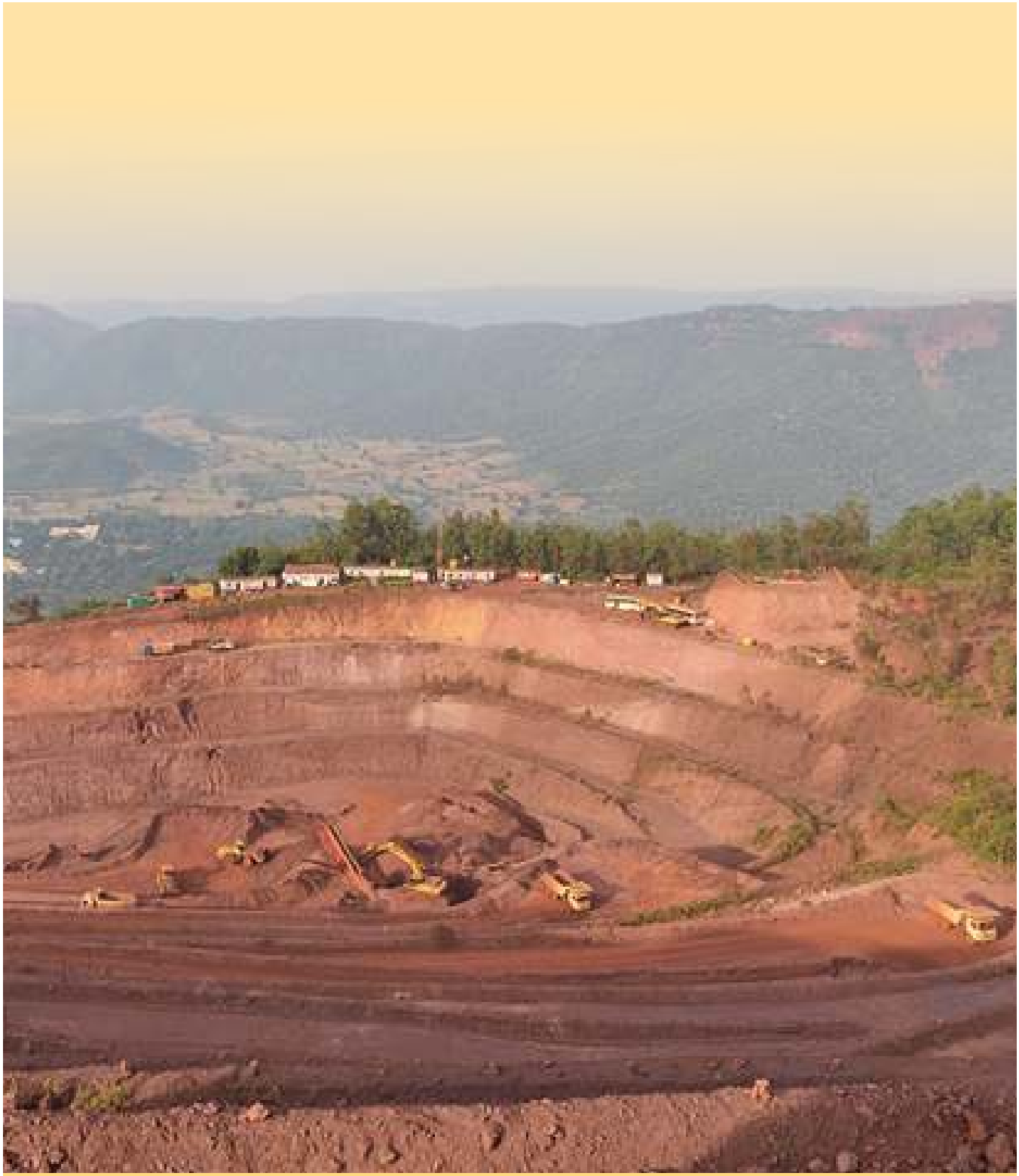
9. HAZARD IDENTIFICATION & RISK ASSESSMENT (100 points)

a) Briefly mention how the mine identifies health hazards and safety risks both within the mine and outside lease area and also activity wise. The ranking of risks on its severity, likeliness to occurrences, its impact on the particular scale.

b) Briefly mention about mitigating measure of risks, its implementation, analysis of effectiveness of implementation, periodical review and modification if required.

10. ACCIDENTS / NEAR MISS ANALYSIS & MANAGEMENT (100 points)

Outline the methods used for investigating accidents/ incidents, root-cause analysis and incorporating the learnings to avoid future occurrences. Briefly describe the above process followed for a past accident in the mine.



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