



MAHANADI COALFIELDS LIMITED

CSR & SUSTAINABILITY REPORT | 2016-17

Economic Stability

Environmental Responsibilities

Social Empowerment



BACK TO ROOTS

Vision

To be one of the leading energy suppliers in the world, through best practices from mine to market.

Mission

To produce & market the planned quantity of coal and coal products efficiently and economically in an eco-friendly manner with due regard to Safety, Conservation and Quality.

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Our Envelope | 2016-17

Sustainability begins at home.

We at Mahanadi Coalfields Limited capture the spirit of sustainability in our 6th Annual sustainability report (2016-17), to meet our goals - environmental protection, economic stability and social wellbeing. By recognizing our impacts with our operations, we make Eco-conscious efforts to mitigate them. We move forward with our sustainable efforts to meet our needs of the present without compromising the ability of future generations to meet their own needs.

Our report confines the sustainability- related information for the FY- 2016-17 of our 29 units. To communicate about our sustainability transparently, we follow the guidelines of the GRI to diverse range of Stake holders, local communities, Government, non-governmental organizations, investors and others. This FY we followed fourth generation guidelines of GRI, “in accordance” with core criteria, including the technical protocols of the Mining and Metals Sector supplement.

Head Quarter

At Burla, Sambalpur.
At Bhubaneswar.

IB Valley coalfield (10 Mining areas)

At Sundargarh District: Basundhara(W) OCP and Kulda OCP
At Jharsuguda District: Samleswari OCP, Lajkura OCP, Lakhanpur OCP, Belpahar OCP, Lilari OCP, Orient U/G mine no 1 & 2, Orient U/G mine no.3, HBI U/G mine.

Talcher coalfield (11 Mining areas)

At Angul District: Jagannath OCP, Bhubaneswari OCP, Bharatpur OCP, Ananta OCP, Chendipada OCP, Lingaraj OCP, Kaniha OCP, Hingula OCP, Balaram OCP, Talcher U/G mine, Nandira U/G mine.

Central stores: (2 locations)

At Talcher and IB valley coalfields

Excavation workshops:

(2 locations)

Central Work shop, Talcher
Central workshop- IB Valley

Contact Details:

For details please visit:
<http://www.mahanadicoal.in>

For queries Email us at
sustainability.mcl@gmail.com

Central Hospital (2 locations)

Nehru Satabdi Central Hospital (NSCH), Talcher
Central Hospital, IB valley

From Chairman's Desk:

Dear Stake holders,

I am pleased to introduce the sixth annual MCL's Sustainability Report for FY 2016-17 prepared in accordance with the latest G4 guidelines of Global Reporting Initiative. Against the backdrop of a still struggling global economy and India's energy dependency on fossil fuel, we continue to operate in economically, environmentally and socially responsible ways; and invest for the future.

A production of 139.21 MT of coal, with a growth of 0.95% against last year has been achieved with an income of 25778.29 Cr INR in the FY 2016-17. Our perspective plan for year 2020 is to reach the 170MT target by investing towards building land acquisition targets, forest clearance and R&R issues. Compared to last reporting year there is a growth path in the production, off-take and overburden removal. We are trying to diversify in the field of pit head thermal power generation, solar power etc.

We mould our business strategy towards both economic performance and CSR like an unbiased coin. Our CSR projects like health care, drinking water supply, electricity, sustainable livelihood, infrastructure development, natural resource conservation, sports have strengthened the trust with local communities and helping secure enduring stakeholder cooperation in MCL's energy business. Our CSR investment have reached INR 166.6 crore in this reporting period. We help local communities' n skill development and education as it develops a perspective of looking at life.

We ensure all our employees, contractors and local communities close to our operations are healthy and safe. We are increasingly extending focus on identifying and addressing the root causes of serious accidents. We create a healthy environment among all the employees and encourage them coming up with new technical and management initiatives for upgradation in our working systems. A preventive vigilance system has also been put into place so as to strengthen the safety machinery and make these changes sustainable in the long run. Our employees are given right infrastructure for their happy living even at remote places. MCL, is associated with clean Indian initiative "Swachh Bharat Abhiyan- Swachh Vidhyalaya Abhiyaan". Mahila Mandals at HQ and area level work for welfare and upliftment of the poorer class of the society specially women, old age people, handicapped people and children in the rural areas of the state of Odisha.

We strive to conserve the natural resources for future generations by restoring the de-coaled land "**Back to Roots**" through effective water and OB management, biodiversity, eco-restoration, afforestation drives and eco-friendly mine closure. During coal life cycle, many challenges are being faced by the environment like energy efficiency and climate change, dust suppression, ground water issues, Elevated temperatures and land reclamation. We actively address all these issues like we recycled approximately 37.93% of total mine water and we drew only 24,630 million liters of fresh water from the various surface water courses. Our usage of Fuel and lubricant consumption for coal production also reduced by 4.78% and 17.59% respectively with respect to previous reporting year.

We developed separate coal corridors in our surroundings and water sprinklers at railway sidings and coal transport roads to reduce the dust generation. We changed our mining methods to eco-friendly surface miner, which resulted in reducing our carbon footprint by 1,30,000 Te of CO₂. We have also planted 52.19 lakhs of saplings since inception and 1.38 Lakh saplings this year.

I would like to appreciate the efforts of coalminers and our stakeholders who are the backbone of our contributions in the energy sector. Our sustainability focus will be continued with transparency, consultation and engagement of stakeholders.

I invite your comments on the report.



Sd/-
(A.K.Jha)
(Chairman-cum-Managing Director)



Message from Director (Tech./Operations):



It's a great pleasure to present to you the report which recognises 26 years of Core Value Catalyst- Sustainability at MCL for local economic development through transparent and respectful stakeholder engagement and as responsible stewards of the environment. It is deeply ingrained principle that guides our actions and supports our purpose to create values and improve lives through sustainable and responsible mining.

I would like to deliver some of the measurable and sustainable results during this financial period. The capacity utilisation of open cast projects during FY 2016-17 was 270.202 M cum, with an enhancement of 12% against last year. In Supply Chain Management, transformation of inputs to outputs is very essential for success of a company in future. During FY 2016-17 total 96 no's of tenders were finalised and 111 no's of supply orders were placed. Our Inventory Regional stores have been reduced by 6.3% against last year. We believe that reducing consumption of conventional power is the cleanest way to consume energy. In this aspect, we took different initiatives like replacing fluorescent tubes with LED tubes and by commissioning of Solar Photovoltaic Power plant (2MWs) way back in 2014, which paved way to reduce 56,56,270 kg of CO₂ till date. We are totally consistent with the product quality for reaching the customer satisfaction. We have five coal laboratories in areas with the grant of NABL accreditation certificate and well equipped viz., Auto Proximate Analysers and Auto Bomb Calorimeters which enables us to determine the grade of coal within two hours. Our coal analysis results are available on daily basis on our "Quality Portal" w.e.f. March 2017. Our despatch through rail mode has been increased by 1.86% against last year.

We are one of the CIL's subsidiary, registered for an Integrated Management System conforming to Quality Management (ISO 9001:2008), Environmental Management (ISO 14001:2004) and Occupational Health & Safety Management (OHSAS 18001:2007), to ensure our mining activities to withhold the legal parameters by compiling with environmental norms and standards for long term success. We are also in the process of applying for accreditation for ISO 50001:2011 for an Energy Management System to manage the rationalized consumption of all energy inputs in our organization and for SA 8000 SAM for managing social accountability concerns of the organization.

Further to above, MCL has achieved Milestone Activity for crashing of critical path Activity of top MOSPI Monitored Ongoing Projects costing Rs. 150 Crs and above during this financial year for Ananta OCP Expn. Ph-III (NOC under FRA for stage-I FC clearance from MoEF&CC), Hingula -II OCP Expn Ph-II (Award of work for Construction of SILO and starting of construction work, Jagannath Re-organisation (preparation of Mining plan for 7.5 MTY).

Finally, I would like to quote **"There are no secrets to success. It is the result of preparation, hard-working and learning from failure"**- Colin Powell.

Sd/-
J.P.Singh
(Director(T/Operation))

Message from Director (Personnel):



It gives me great pride to put my thoughts together on the Sustainability Report of MCL for the year 2016-17. We are into the excavation business. Critics often use the phrase “Sustainable mining is an oxymoron”. Their contention is based on the premise that ore bodies are finite & non-renewable and even the best managed mines will have some environmental and social costs. However, the inescapable truth is, modern economy even with best intention cannot do without minerals. We, at MCL, have taken the sustainability concern in our stride.

On social front, we believe that to be a socially sustainable business corporate, people’s rights must be recognized, mining benefits equitably shared and people must be made part of decision making. For project affected people, we have the best of compensation and R&R packages. We settled a total of 559 PAFs upto 31.03.2017 and these families either choose relocation to R&R sites, or to sites of their own choice. For our employees, we focus on creating unsurpassed amenities, welfare programs and conducive work atmosphere. We are steering up for the new training institute of MCL- Institute of Natural Resources & Energy Management at Bhubaneswar. We also have established training centers at corporate office and at different areas. During this FY, 8183 employees both executive and non-executives were trained at different renowned organisations in India and Abroad. We encourage all the employees as competent managers by reviewing their performance regularly. Three HR initiatives taken up for talent development among employees at MCL are Mentor-Mentee Scheme, Mining Sirdar Training and Imparting training under Apprentices, Act,1961.

For the society and public at large, we undertake CSR initiatives. MCL is the top CSR spender in 2016-17 in the state of Odisha. The company has spent Rs. 166 crore against the 2%- law-budget of Rs. 113 crore. Two of the noteworthy, high-investment and high-impact projects are- Medical College-cum-Hospital named as ‘Mahanadi Institute of Medical Science and Research (MIMSR)’ at Talcher and Construction of toilets in rural schools of Odisha. Work on MIMSR has started in April 2016 and is expected to be completed by September 2018. At Rs. 492 crore, it is the largest investment on a single CSR project by any corporate house. Apart from these, we have taken-up a host of social sector and community development projects like rural road connectivity, drinking water supply, piped water supply schemes, schools, community centers, rural electrification and livelihood projects. During the year, MCL has given Rs. 847 crores towards DMF fund (District Mineral Foundation) created exclusively for the benefit of mining affected people. The central theme is to make the people ‘partner in’ and not ‘victims of’ mining. I take this opportunity to wish MCL continue its legacy and move on a wholesomely sustainable growth trajectory.

Sd/-
L.N. Mishra
Director (Personnel)

Message from Director Technical (Planning and projects):



It is a matter of great pleasure to present you the annual sustainability report for the FY 2016-17. MCL's endeavour has always been to plan in such a way that it meets the human development goals and at the same time sustaining the ability of natural systems without compromising the ability of our coming generations. There is a great saying, "If you are not planning to succeed, you are planning to fail". Therefore, it is imperative on our part to ensure proper planning and its implementation/execution of the projects undertaken by us.

During this reporting year, we took up several brick and concrete works like construction of coal corridor road (19.878) Km at Talcher coalfields to improve the environmental conditions and the construction of 2-lane dedicated coal corridor road (33 Km) from Bankibahal to Bhedabahal in Sundergarh district has been approved by MCL board. For welfare of the employees, the clubs in both the colonies at corporate office are renovated and constructed. The extension and renovation of Belpahar training institute at Lakhapur Area has also been completed.

On environment front, our priority is to abide by environmental laws, implement standards in true spirit, respect the eco-system, augment resource efficiency, adopt environment friendly technology, and support investments in green initiatives. In 2016-17, MCL has contributed Rs. 5720 crores towards clean energy cess. During this reporting year 1,38,540 nos of saplings have been planted. The area under land reclamation has increased from 32.70 Km² to 33.85 Km² against the previous year. We follow sustainable water management by recycling the mine water by reducing the withdrawal from surface courses. In this reporting year, we recycled approximately 37.93% of total mine water. We have been appreciated by CIL with corporate award on the occasion of CIL foundation day for "Best Environment Management-2016-17". With the implementation of a new system of e-procurement with reverse auctions during this financial year has resulted in drastic reduction in complaints, better online management of EMD and more effective penal provisions for defaulting bidders. Coal beneficiation plays very important role in the mining life cycle. We supply coal to our customers by proper sizing to 100mm at CHPs and FBs. Furthermore, we are putting efforts for installation of four coal washeries. The major challenge in a mining sector - "Environmental Clearance" of one project IB valley washery (10 Mty) was granted during this financial period.

We at MCL, follow activities of Mine closure plan for all our de-coaled mines, which includes reclamation of degraded land by backfilling and plantation, providing avenues for entrepreneurship for locality by the financial provision from escrow account. During the reporting year, Mine closure activity report of Bhubaneswari OCP is submitted for audit.

We come to work with a pride and determination to deliver the very best for all our stakeholders and believe that our products, services and the value they add to our customers' businesses remain the fundamental elements of our continued success.

Sd/-
O.P.Singh
Director (T/P&P)

Message from Director Finance:



I feel privileged to be a part of this great initiative of bringing out the sustainability report of MCL for the year 2016-17.

MCL, which is the largest producer of coal in the country sharing burden of energy security, through this report it intends to inform all the stakeholders about its economic, environmental and governance performance.

It is our sincere effort to internalise and improve MCL's commitment to sustainable development in such a way that it is demonstrable for both internal and external stakeholders.

As a responsible committed corporate citizen, profit making is not the only motive for the company but it wants to satisfy the stakeholders with due regard to environment and social responsibility.

The management is fully committed to embark upon all the initiatives to fulfil the objectives.

Just as the financial statements of all the company gives all the stakeholders the sterling performance of the company in economic terms, the sustainability report shall inform all the stakeholders of MCL's commitment to environment and society.

I wish everyone who is involved in such great process, a good luck.

Sd/-

K.R.Vasudevan
Director(Finance)

Message from Chief Vigilance Officer:

Another year has been passed with our great responsibilities of ensuring accountability, fairness and transparency while accomplishing respective works and delivering products to customers.



We believe that “Attitude of vigilance needs to be associated to the methods of surveillance”. Preventing corruption is the responsibility of every executive. We follow standards and norms set by the Government of India through its various agencies like the Central Vigilance Commission, which help in growth of business practices with objectives of good governance.

During this reporting year, 63 surprise inspections and 22 regular inspections have been carried out at field operations like SILO construction site, Quality check of coal stock yards, e-surveillance units, In- motion weighbridge calibration, Delay in closure of contracts, Geo fencing violations etc. which lead to inclusive improvements in our internal systems, processes and practices.

Detection of corruption activities with the help of better technical and financial aspects will elevate the degree of efficacy. We were able to assess the exact coal production on real time basis with 100% weighment of coal tippers with coalnet connectivity. With the installation of GPS based VTS and Geo fencing of Coal mining areas, there is drastic reduction of coal theft from projects. We also keep a track on our trucks within mine premises and at railway sidings by CCTV cameras to avoid illegal detention of trucks. Due to this step, there is a reduction of illegal detention of trucks during night hours from 56 trucks per day per project to 3-4 trucks per day per project and also thefts.

We throw up regular alarms to trace the log of pending activities by a module named “Online Material Management System” in coalnet. During the period of two years it has resulted in identification of pending items worth Rs.25 Cr and reduction of inventory from Rs.102 Cr to Rs.77 Cr. During 2016-17, an amount of Rs.17.05 Cr was refunded to 3387 unsuccessful bidders on auto mode within one day time as against a delay of 3-6 months earlier.

We are committed for pursuing preventive vigilance by conducting awareness programs at HQ level, at field locations and amongst general public in the state of Odisha. As well classes on CDA rules and Certified Standing Orders for employees, interactive sessions with coal consumers, Tenderers/Bidders etc., by listening to their grievances and sorting out the issues with concerned department and authorities of MCL are being conducted on regular basis.

In the Light of Thomas Jefferson “Let the eye of vigilance never be closed”.

Sd/-
Munawar Khursheed
(Chief Vigilance Officer)

From GM's Desk:



I am proud to be associated with the Sixth Annual Sustainability Report of MCL themed “Back to roots”, which helps our endeavours to achieve sustainable living for future gen. This report covers all the Economic, Environment and Social performance of our company by following GRI fourth generation guidelines “in accordance” with core criteria. I would like to share a glimpse our accomplishments and shortfalls in these domains for FY 2016-17.

Economic Stability:

We produced 139.21MTe of coal during FY 2016-17 with a growth of 0.95% of previous year. While achieving our target we are closely associated with safety of our employees and environment. Amidst various consequences, we are committed to achieve our production through environment friendly surface miners and deliver high quality of coal to customers.

Environmental Responsibilities:

By confessing the impacts like land disturbance, air pollution, discharging of mine water into surface bodies and lowering of ground water, etc., we carefully implemented steps to minimise them on the neighbouring community, the immediate environment and on long-term land capability.

We reclaim the mined-out area by backfilling with the overburden followed by soil compaction and Plantation. We continuously monitor land reclamation progress of our OCPs. We planted 1.38 Lakh samplings this year. We continue our efforts to curb CO₂ emissions by reducing our fuel demands and electricity usage i.e by replacing the fluorescent lights with LED lights. Besides this, we coupled up our operations with renewable energy resources. We have installed 2MW solar plant at Anand Vihar colony and planning on installation of solar panels on roof tops. In this reporting year, this project has earned us 14,979 RECs and contributed to a reduction in our carbon footprint by 21,03,637 Kg of CO₂. We have a “Mine water Management Plan” to recharge the aquifers by capturing the surface mine water. We continued to recycle water from ETPs for vehicle washing. We are proud of our “Zero discharge” of waste water which has made water available for irrigation and agricultural purposes. Our solid waste management follows a strict policy of generating less and disposing in safe way. Our Environmental Protection Expenditure in this FY is 4388.32 Lakhs.

Social upliftment:

Our CSR activities are much before the Companies Act of 2013 came in to existence. We always engage ourselves in the upliftment of the local community by R&R implementations, skill development training programs for their living etc. During FY 2016-17 we resettled a total number of 559 PAFs.

We need all our stake holders support for “**Back to roots**” by tackling all challenges. We request all our readers to share pointers for improvements in this report.

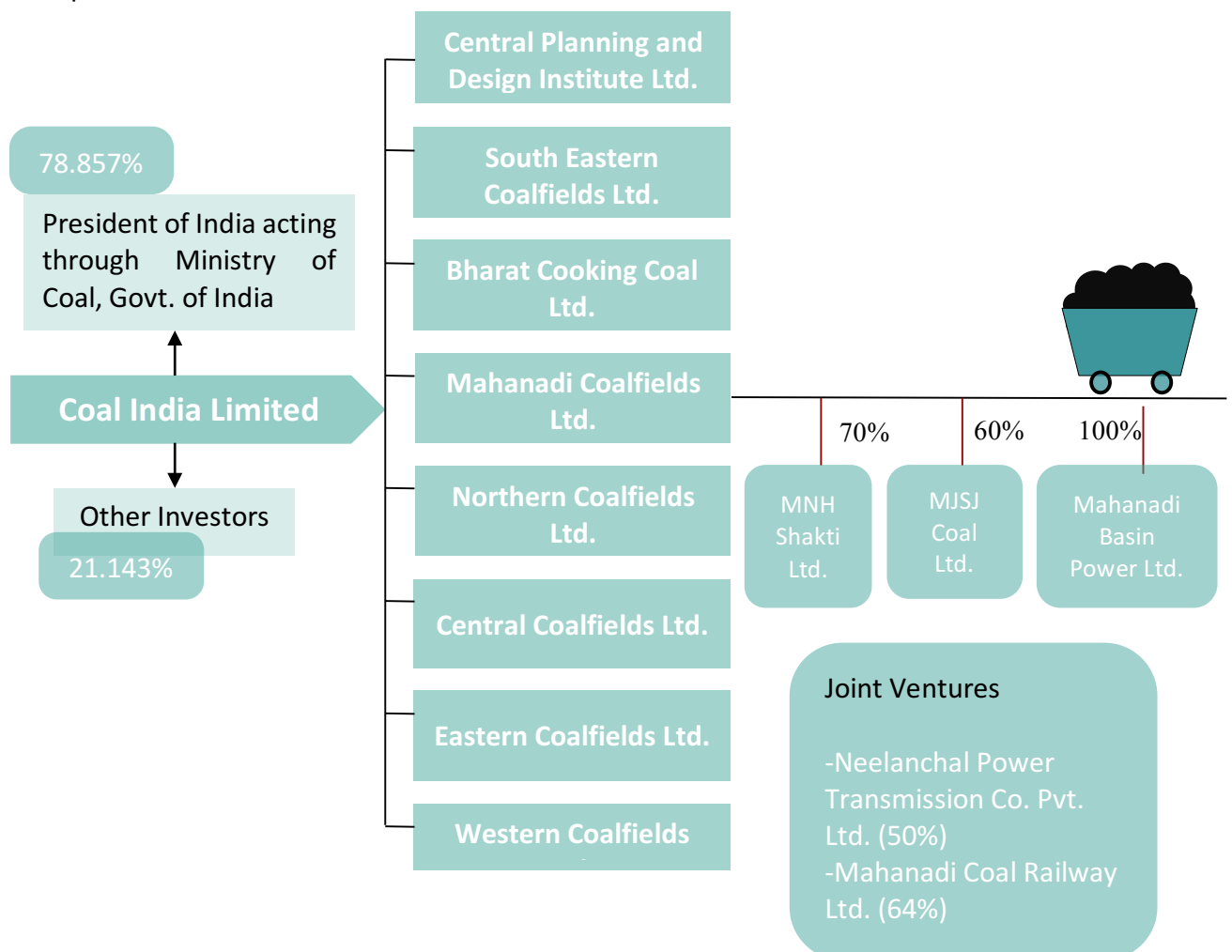
Sd/-

Dr. Abani Kanta Samantaray
(General Manager (Environment))

Corporate Network

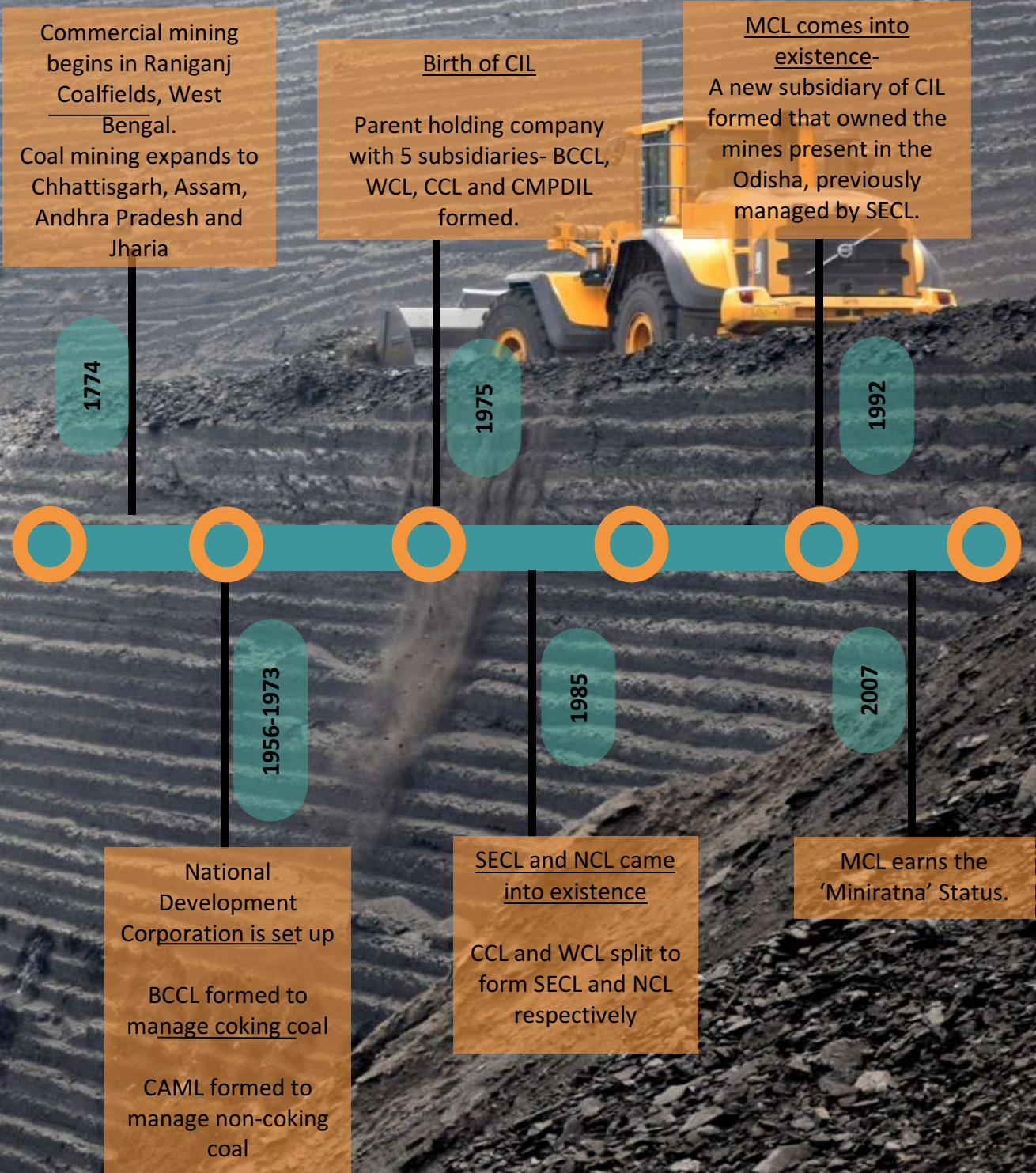
We are one of the subsidiary of Coal India Limited, largest coal producer in the world with production of 554.14 MT (FY 2016-17), a Maharatna Central Public Enterprise, and Government of India undertaking and Headquartered at Kolkata, West Bengal. The parent company has operations in eight Indian states including West Bengal, Odisha, Maharashtra, Uttar Pradesh, Assam, Chhattisgarh, Jharkhand and Madhya Pradesh. They also have one international unit at Mozambique.

Our Mahanadi Coalfields Limited (MCL) is Headquartered at Sambalpur in Western Odisha and owning a 'Miniratna' Central Public Sector Enterprise mark. Our operational units are spread over Talcher and Ib valley Coalfields. We also own three subsidiary companies- MNH Shakti Limited, MJSJ Coal Limited and Mahanadi Basin Power Limited (SPV). Neelanchal Power Transmission Company Pvt. Limited and Mahanadi Coal Railway Limited are our joint venture enterprise.



MCL's Black Diamond Legacy

"when you go into your living room tonight and toggle the switch and the light turns on...
THANK A COAL MINER"



OUR OPERATIONS

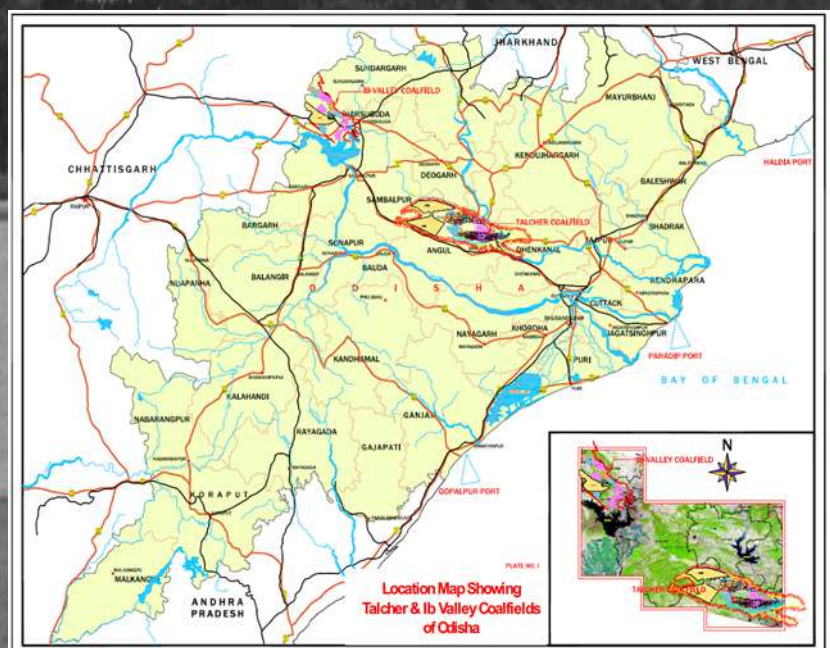
MCL corporate office is located at Sambalpur in western Odisha completed 26 years of excellence in mining, operating at two major coalfields -Talcher Coalfield and Ib Valley Coalfield with the best management team. We also have three subsidiary companies- MNH Shakti Limited, MJSJ Coal Limited, and Mahanadi Basin Power Limited (SPV).

We extract coal via opencast mining and underground mining. Currently we have 51 sanctioned mining projects (including 2 exhausted projects) with a sanctioned capacity of 224.41 Mty and a capital outlay of Rs. 11,832.52 Crore. Of these, 35 projects (including 2 exhausted projects) have been completed with a capacity of 102.58 Mty and a capital outlay of Rs. 3,000.017 Crore. Currently, there are 16 ongoing projects with a capacity of 121.83 Mty and a capital outlay of Rs. 8,832.50 Crore.

Our parent company has ambitious target of IBT production of coal by 2020 in which our target is 250MT production. We have a future vision to diversify our business into power generation and transmission, as well as solar power so as to emerge as an integrated energy firm in a sustainable way.

MCL HQ

Map of Odisha showing our coalfields



MCL's Other Business:

With coal reserves for few more decades, we build other business towards thermal power generation, power transmission, green energy and most recently, the coal logistics for enhancing the availability of coal to the consumer industries.

Power Generation

Coal power generation has fueled our growth tactics and sustainability ideals here at MCL. We have progressed towards establishing a coal-based thermal power plant of 1,600 (2X800) MW using super-critical technology, at Basundhara area, Sundargarh. This project is slated to take off through our subsidiary Mahanadi Basin Power Limited (MBPL).

The project is progressing quite steadily by commencing various statutory activities. The consultancy is allocated to M/s PFCC Limited. Pillar posting is in progress and finances have been sanctioned for the DGMS survey to be conducted after pillar posting. For fuel linkage, MoC has accepted the application for coal allocation and it is under consideration. Efforts are being taken to arrange the Palli Sabha by interacting with the village Panchayat/Sarpanch and the BDO of the local Tehsil. We have made progress in seeking Firms for Coal Allocation; water Allocation; and Ash Utilization for environmental clearance. we are also in the progress of seeking an NOC from Civil Aviation and Defence.

Power Transmission

In the FY 2012-13 we ventured into the business of power transmission through installation of a 220KV power transmission line from Budhipadar to the Basundhara Area. We envisaged this as a business diversification option that would also allow us to illuminate the remote areas of Odisha. Our joint venture company Neelanchal Power Transmission Company Private Limited (NPTCPL) has partnered with Orissa Power Transmission Company Limited, for similar interventions.

Coal Logistics

MCL has dedicated itself to expand its business to Coal Logistics for evacuation of Coal. Mahanadi Coal Railway Limited, established on 31st August, 2015, is a company based on an equity participation between MCL, IRCON and IDCO in the ratio of 64:26:10. The joint venture company will implement rail corridor projects on a build, construct, operate and maintain model. Specific project activities would include doubling, third line and traffic facility projects thus enhancing coal connectivity.

Renewable Energy alternatives

To lead our business in sustainable way, we established a 2MW Photovoltaic Solar Power plant at MCL, Anand Vihar during FY 2014-15. During the reporting year, a total of 2337375Kwh of energy was generated. We transmit this power to the WESCO grid and also use in our Anand Vihar campus.



Governance philosophy and structure:

At MCL, our corporate governance Philosophy is 'Performance with Integrity' - a way of working that enables us to secure the rights of shareholders with transparency by retaining their confidence in us. In long term commitment for sustainability, we practice the characteristics of Good Governance like Participation, Rule of Law, Equity, Transparency, Responsiveness, Effectiveness and efficiency, Accountability, Consensus orientation, Strategic Vision to our best extent in every sphere of business activities pertaining to MCL. As a Government of India undertaking, we continuously try to implement the corporate Governance Guidelines that are set by DPE. In FY 2016-17 we managed to extensively entrench these DPE guidelines throughout our organization structure. For our Board of Directors and our senior management personnel, we follow a statutory document called the 'Code of Business Conduct and Ethics'.

Our Governance structure is in accordance with Coal India Limited. CIL's organizational structure and governance framework, is headed by Chairman cum Managing director, who is nominated by the president of India. This ensures accountability to operational management, with the purview of business strategy, policy guidelines and standards laid down by the board of Directors of CIL. The CMD who heads MCL, reports to the chairman of CIL and is ably supported by the Board of Directors.

Here's our Team



Shri A.K. Jha
Chairman-cum-Managing Director

Functional Directors



Shri J.P. Singh
Director (Tech/OP)



Shri K.K. Parida
Director (Finance)



Shri L.N. Mishra
Director (Personnel)



Shri O.P. Singh
Director (Tech/P&P)

Official part time Directors



Shri R.K. Sinha
Joint Secy., MOC



Shri S.N. Prasad
Director (Marketing), CIL

Independent Directors



Dr. Rajib Mall



Shri H.S. Pati



Our Management Committee consist of four functional directors, CMD, two independent directors and two official part time Directors (Nominee). All the Functional Directors of the company are appointed by the Hon'ble President of India. We also have Chief Vigilance officer (CVO) who works closely with MCL. General Managers (GM's) of various functions and areas, report to the functional directors.

MCL, our Board of Directors has also formed various committees and sub-committees, which function according to their defined scope of work. The reporting year of FY 2016-17, evidenced enhanced effectiveness of the Board, through quick decision-making and the implementing of appropriate auditing and reporting systems, wherever necessary.

Audit committee:

Reviews the Financial and operational Performance

Technical sub-committee:

Evaluation, appraisal and recommendation of projects for approval of MCL board.

CSR and Sustainability Sub-committee:

Formulation of CSR policy with recommend activities to be undertaken such as expenditure and monitoring of the policy.

Risk Management Committee:

To review the company's risk management strategy, policy procedures.

Sub-Committee for land oustee cases:

To Consider and approve all the cases of Employment. Cash compensation etc. as per Existing norms of R&R policy.

Nomination and Remuneration committee:

Remuneration, Review, Recommend Options and take decisions on Human Resource Management.

Rope Showel operation at Bharatpur OCP



Vigilance- Striving for Zero Corruption:

Vigilance is essential part of our MCL management for suppressing the unethical activities of individual gains at the cost of the organization. For good will of company, we ensure in functions like protecting the honest performers, disciplining the wrong doers, increasing transparency and fairness, ascertaining accountability, reducing wastages/leakages, promoting culture of honesty and integrity and reforming systems for corruption free delivery with the help of our Vigilance Department. Headed by the Chief Vigilance Officer (CVO), who is nominated by the Central Vigilance Department, New Delhi. During FY 2016-17, as a preventive, predictive and pre-emptive vigilance measures, 63 surprise inspections and 22 regular inspections in various field operations have been carried out under the guidance of CVO. During inspections, we ensure the check of various operations like SILO construction site, quality check of coal stock yards, e-surveillance units, geo-fence violations, delay n closure of contracts, coal transportation etc., This department strive for improving efficiency and effectiveness of the personnel as well as the organization with a strategy of 'Watchfulness, Awareness & Caution'.

Watchfulness

- Installation of GPS based Vehicle Tracking System (VTS) & Geo-fencing of mine areas has been done to prevent the theft of coal. A website www.mclvts.in has been developed for monitoring of 1800 coal tippers in mine areas fitted with GPS.
- For the effective implementation of monitoring and e-surveillance units, 35 no's of CCTV Cameras have been installed at the entry/exit points of the coal mining projects and at the magazines.
- An amount of Rs. 13.63c Cr has been refunded to 4292 unsuccessful suppliers/bidders during 2016-17 on auto mode in hassle free manner by online Auto-Refund of Earnest Money Deposit.
- There was increase in Coal weighment percent from 10-15% to 90-95% by implementation of In-motion weigh bridges with RFID and connectivity through coal net.
- Identification of dead moving items worth Rs.25 Cr and reduction in inventory from Rs.102 Cr to 77Cr in two years has been resulted due to Online Material Management System.
- Rotation of employees engaged in sensitive jobs.

Awareness

During FY 2016-17, Vigilance awareness week was celebrated from 31st Oct to 5th Nov 2016 with a theme of “Public Participation in Promoting Integrity and Eradicating Corruption”.

- During this week, Bidders meet was organized at HQ and area level. We assured them for redressal of their grievances. Vigilance Bulletin 2016 and Do’s and Don’ts in respect of different departments was released by MCL for enhancing the knowledge of employees relating various vigilance matters. Debate competitions were held between students of various schools and employees.
- MCL has actively participated in public platform of ‘Rahagiree- Patho Utsav’ Organized by Bhubaneswar Municipal Corporation to spread the social message of vigilance Awareness, fight against corruption, Integrity and transparency in public dealing.
- MCL vigilance along with XLRI- Jamshedpur Organized Training on Ethics in Public Governance on 28th Feb,2017 under the Ethics and Integrity club.
- We get our employees trained in accordance with organization’s anti-Corruption policies and procedures. The trend of employees being trained is depicted in the figure.



Trend of Employees Trained



Caution

Whistle Blower Mechanism

This is an internal controlled system for dealing with cases of fraud and mismanagement. We are having a toll-free number (1800 345 6795) which is active 24x7 and email facility—cvo.mcl@nic.in through which stakeholders can express their grievances.

-These initiatives have built the confidence in stakeholders and come forth to participate in our whistle blowing. The complaints were reviewed and action may be taken by CMD or CVO or Chairman of the Audit Committee.

A new portal “Online Grievance Redressal” for addressing the grievances of stakeholders has been added on the website by Grievance Redressal cell(GRC). Our employees also have the option of appraising their grievances to Chairman of Audit Committee.

In process

Upholding Transparency

FY 2016-17:

- 13 vigilance cases taken up involving 58 employees.
- Total 9 cases taken up for Departmental proceedings involving 51 employees.
- Penalty was imposed in 5 cases involving 10 employees.



Vigilance awareness at St. Paul school, Burla.

- A work order has also been issued for 376 CCTV Cameras (for installation of 21nos.-High definition, day/night wide dynamic range Dome camera and 355 nos. High definition 1P Box/Bullet camera for outdoor and indoor installation) at 9 regional stores and 2 central stores.
- Installation of motion weigh bridges at railway sidings for weighment to avoid possible pilferage of coal during transit.
- Upgradation of railway motion weigh bridges from 130 tonne to 150 tonne and weigh rails from 4 meters to 5.5 meters.
- Installation of 2305 nos. of GPS based VTS on HEMMS including all OB carrying dumpers and coal tippers are under installation.

Human Rights

Preservation, retention and upliftment of human rights is central to day to day business operations. We give utmost importance to sustainability across all aspects of our company operations by considering human rights of all our stakeholders and vendor communities that reside in our vicinity. We don't endorse any form of forced, compulsory or child labor directly or through our contractors. To ensure the same, our contract management cell (CMC) has human rights clauses in-built in all vendor contracts. During the reporting period, there were no reported instances of human right violations.

Our Industry Associates

With its focus on growth and sustainability in terms of mine to market values, MCL seeks to look for inspiration outwardly as well. MCL is a member of several industry associates including the confederation of Indian Industries (CII), Standing Conference of Public Enterprises (SCOPE), Mining Geological and Metallurgical Institute of India (MGMI), Coal Preparation Society of India (CPSI) and Utkal chamber of commerce and Industry Limited (UCCI).



Confederation of Indian Industry



The Mining Geological & Metallurgical Institute of India



Open Cast Mine at Talcher Coalfield

Awards and Accolades for our company

Corporate Governance

- Conferred Excellence award by Institute of Economic Studies (IES).
- “Scope Corporate Communication Excellence Awards 2016”
- Skoch Blue Economic Award for “Initiative for introduction and successful operation of eco-friendly mass production technology ‘Surface miner’ in MCL.
- Conferred PSU Leadership award in “Elets 3rd PSU Summit and Award”.
- Bagged IAFs “Emerging Company Award” for outstanding achievement in Business and Social Services.
- Conferred “Top PSU Award” for outstanding achievement for the last 25 years at Dun&Bradstreet India’s Top PSUs & PSU Awards-2016.

HR

- Bagged two Greentech Awards for outstanding achievement in Technology Excellence and Training Excellence at 6th Annual Greentech HR Conference 2016.
- Rajbhasa Mukut Mani Award by Bharatiya Bhasa and Sanskrit Kendra for excellent work in Rajbhasa.

ENVIRONMENT

- 17th Annual Greentech Environmental Award
 - Bharatpur OCP in Gold Category
 - Lakhanpur OCP in Silver Category

CSR

- Conferred Skoch order of Merit Award at 46th Skoch Summit for CSR Initiatives.

Marks of Distinction Earned

- **“The CEO with HR Orientation Award”** was conferred upon Shri A.K.Jha, CMD,MCL by TIMES ascent and world HRD congress.
- **“Indian Achievers Award”** was conferred upon by Shri A.K.Jha, CMD,MCL by Indian Achievers Forum (IAF).

Sustainable business- Putting into Practice:

We adopt good sustainable governance to enable collaboration with stake holders, such as investors and consumers in long run, with transparency and responsible polices for delivering excellence in health and safety, conservation of environment and community and quality service. We follow the CIL’s sustainable policy frame work-2013, to leave an environmental friendly footprint encompassing mainly three components **Environmental sustainability, socio-cultural Sustainability and Economic Sustainability**. We managed to bring difference in our existence in the society by believing ‘Sustainability starts within ourselves’.



Sustainable performance assessment 2016-17:

Production and Profits	
Coal Production	Achieved a production of 139.21 MT of coal, with a growth of 0.95% against last year
Overburden removal	The overburden removal was 123.34 Mm ³ with a growth of 25.33%
Coal offtake	The off take of coal quantity was 143.01 MTe with a growth of 1.99% of previous year.
Increase in wagon loading	The wagon loading is 66.2 Rakes/day with an absolute growth of 1.22% against last year.
Rise in the financial performance	The total profit after tax is Rs.4491.09 Crore against last year's Rs. 4207.75 crore.
Health and safety	
Fatal incidents	There are 6 no's fatal incidents against 2 no's in last year.
Occupational illness cases	No occupational illness cases recorded
Serious injury	Fatality was 6 no's against 2 no's in last year and no. of serious injuries were 8 no's against 4 no's in last year.
Human Resource Management	
No. of training provided to executive and non-executive employees	Total no's of 8183 employees, both executive and non-executive were involved in trainings included training in house, outside the company and abroad against 9700 employees in last year.
Focus on Gender diversity	The permanent and contractual female workforce increased about 3.08% and 50% by previous reporting year.
Hiring of fresh Talent	832 employees were newly recruited including executives and non-executives.
Number of Mine Closure activity	Mine closure activity file of Bhubaneswari OCP is submitted for audit.

Environment	
Increasing the number of ISO 14001 Certified units	We are one of the of Certified units of parent company
Energy consumption and Renewables	The electricity consumption is 302.0813 Million kWh with a slight increase by 0.48% against last year. We have solar panel unit at Headquarter level and initiated for installation of 12 solar roof tops at area and project levels. The solar plant at contributed to a reduction in our carbon footprint by 21,03,637 Kg of CO ₂ . Around 10,469 LED lights have been fitted (new + replacement) at our premises.
Increased tree plantation for ecological restoration	Since inception we have planted 52.19 lakhs of saplings and 1.38 lakhs saplings this year.
Community	
Setting up rigorous governance and oversight systems for CSR programs	Our parent company has entered into MOU with Tata Institute of Social Sciences (TISS), a national CSR hub for implementation of CSR activities. We at MCL, have CSR committee at HQ and area level.
Development impactful community programs- based on experience, studies and community feedback	Major CSR initiatives have been undertaken in the fields of women empowerment & child education, rural development projects, health, sports, environment, water, Swachh Bharat and skill development

It's not easy to attain sustainability in every aspect, we are striving to improve our flaws.



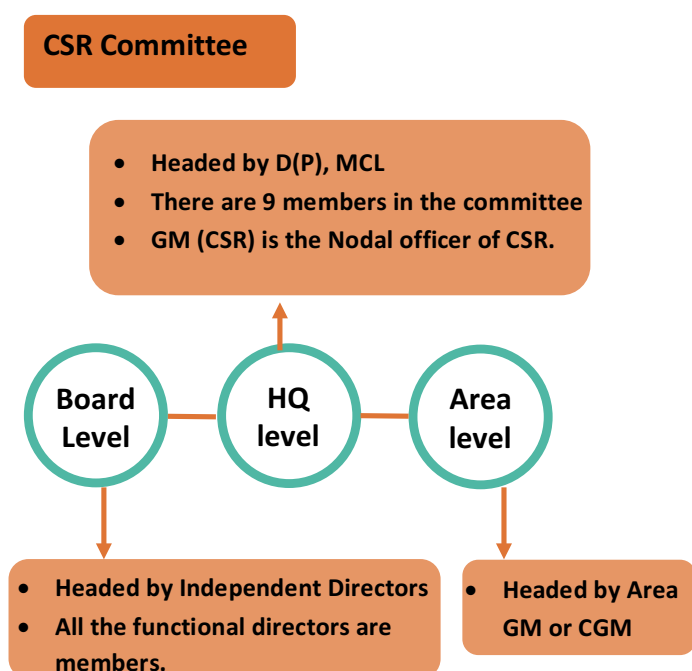
Avenue plantation, Lingaraj OCP



Cashew nut plantation at Balanda OCP

Sustainable management:

We framework our Sustainability Management to provide products and services and drive revenue growth through early market entry into new socio-environmental business opportunities and enhancing reputational advantage in a new and growing market. It is a framework under which “extra-financial” environmental, social and governance (ESG) issues are addressed in conjunction with economic and financial matters. Stake holder concerns against the business impact allowed for preparation of the materiality matrix which would act as guidance for the top management while integrating the sustainability management within the business strategy. We ensure sustainable mining practices by considering safety and health of the employees and creating value for community. Our parent company reviews our annual action plan to meet our goals and periodically reviews the progress of the activities we undertake at this end.



Besides this, we also have an Environment Department and the CSR department, who take several initiative measures to mitigate our impacts on environment and local community due to our operations. The CSR committee at MCL is of three types including the area level, the HQ level and the board level (depicted in the picture). A review meeting is held for every six months by the board of directors to analyze physical and financial progress of the CSR activities. Our CSR projects are evaluated by external dependent agency which show any gaps that may be missed out and shows the results in a more wholesome manner with the external community in focus.

Risk management:

Sustainability management is a risk management tool not just into building and maintaining the capacity to understand the risk of new socio-environmental businesses. We avoid negative consequences by identify the Risk at first place and then assessing it to control in different functional areas of the company for an effective risk management process because of inherent risk, external and internal risks. We have “Risk management committee (RMC)” at MCL to comply with the provisions of the requirements of the section 134 (3) (n) of the companies Act, 2013.

This cell was first formed in 2011-12 by a separate sub-committee of the board and later reconstituted on 09.02.16 and General Manager (S&R) has been nominated to act as Chief Risk Officer (CRO).

This cell coordinate and comply with the matters related to Risk Management and also suggests the Board for any changes required in risk management strategy, policies and procedures.



Shri. J.P.Singh DT(O) delivering speech at “Risk That Matters” workshop.

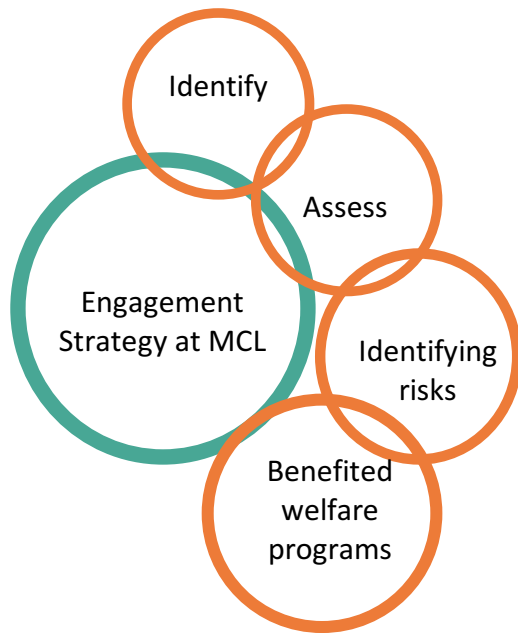
Key Risks and Concerns

At MCL, we monitor some critical factors like acquisition of land, forest clearance, land outsee problems. We also give emphasis on strengthening our internal machinery for ensuring smooth operation of the company. Some of the key concerns and the associated risks and opportunities are discussed below.

Key concerns	Risks	Opportunities
Forestry clearance and environmental clearance	Delay in obtaining clearances hampers the production performance of the projects.	Scope to streamline processes and have an action plan considering this aspect which would allow flexibility to operate.
Rehabilitation and resettlement	The economic performance may be impacted due to the high cost of R&R interference.	Scope for developing alternative mechanisms to reduce costs and enhance community engagements to resolve issues at grass root levels.
Employment	Law and order problems and obstructions of mining and coal transportation operations will be resulted due to demand of employment from the local community beyond the prescribe norms.	Scope to develop adequate skill development programmes that would eventually lead to availability of workforce with skillset essential for mining.
Procurement of HEMMs and other E&M items	Long lead time to procure HEMMs and other E&M items.	Scope to simplify procurement process.

Stake holder engagement:

Stakeholders are the individuals who are affected by or can influence a company or product throughout its life. These individuals can be internal and external for a company. Without the ongoing participation of stakeholders, it is hard for us to survive, as organisations and stakeholders are mutually interdependent. Thus, we consider stake holder engagement as an important part in our project life which helps us in expressing our values, carry our mission, develop strategies, implement processes, identifying risks of the outcomes and improve relationships on a continuous basis. We understand the concerns of stakeholders and we address them by reaching to their expectation level for sustainable growth of our organisation. The outcome of the stakeholder engagement process is analyzed to identify and prioritize the material aspects to be considered.



We at MCL, first we identify the important stake holders and their interests by informing them about our plans and then we assess their power of influence in the project life cycle. We understand the stakeholder concerns on the same and identify their risks. We develop a strategy for building benefited welfare programs for stakeholders. We engage with stake holders Monthly, quarterly, and annually based on their concerns at different stages of the project.



Stake holders meet during vigilance awareness week-2016

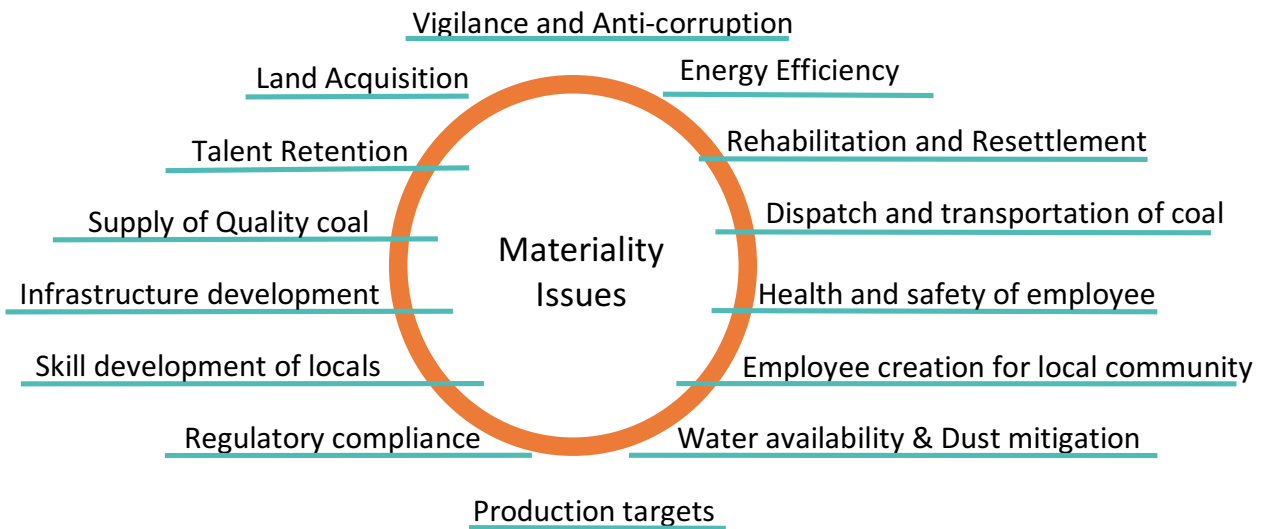


Rajabasha karyashala for strengthening the Rajabasha Pakhwada held on 23rd April 2016.

We engage with	Mode of Engagement	How often do we engage?
Government - Ministry of Coal/ Coal India/ Regulatory Authorities	Performance report, Board Meetings, Compliance reports, Inspection visits, Labour meets	Monthly, Annually
Employees	Vigilance week, Safety week, Performance appraisal, Trainings and seminars, Induction meeting of new employees with senior management, Annual report, Sustainability report and Rajbhasha Pakhwada, Industrial relations meetings with union leaders regarding wage negotiation, Monthly co-ordination meetings.	Monthly, Quarterly, Annually
Customer	Consumer complaints system and RCCC meetings with customers regarding quality, size and Delivery time of coal.	Quarterly, Ongoing, Annually
Contractors, suppliers and vendors	Regarding quality of items of supply, supply schedule, NIT conditions by team interactive sessions with concerned people.	Monthly
Community	Public Hearing/ Consultation (For new & Expansion projects) as and when required Regular meeting in the project regarding rehabilitation and resettlement compensation.	Ongoing
NGO & Media	As per the guidelines prescribed by MoEF regarding impacts of mining activities on the community and country.	Whenever required

Materiality Analysis:

Materiality assessment is the process of identifying, refining, and assessing numerous potential environmental, social and governance issues that could affect our business and our stakeholders. We believe that materiality analysis will be an opportunity to apply a sustainability lens to business risk, opportunity, trend-spotting and enterprise risk management processes.



Skill Development



Training sessions on Tailoring at rural areas of Bargarh District

Health Awareness



AIDS awareness program held by Medical Department, MCL.

Materiality Matrix:

We believe to get the most of the materiality assessment process, not only within the sustainability team but to involve people from right across the business. We first prioritize the most material aspects and then assess qualitatively by our management team. Finally, we have come up with the materiality matrix (3x3) that is a union of both stakeholder perspective and management perspective. Land acquisition and R&R remain the most pertinent issues of our company.

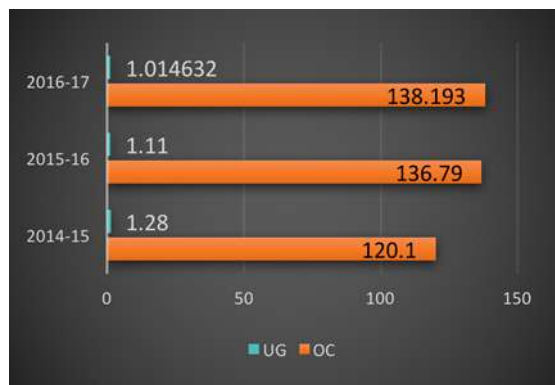
		LOW	MEDIUM	HIGH
RELEVANCE TO STAKEHOLDERS	HIGH	<ul style="list-style-type: none"> Timely payments 	<ul style="list-style-type: none"> Skill development of locals Employee creation for local community Maintenance of colonies and office infrastructure. 	<ul style="list-style-type: none"> Regulatory compliances Coal Quality Land acquisition R&R Health and safety Vigilance and Anti-corruption Coal dispatch
	MEDIUM		<ul style="list-style-type: none"> Land reclamation and mine closure Infrastructure Development 	<ul style="list-style-type: none"> Production targets Energy efficiency Talent retention Water availability Dust mitigation
	LOW			
		RELEVANCE TO MANAGEMENT		

Accomplishments in 2016-17:

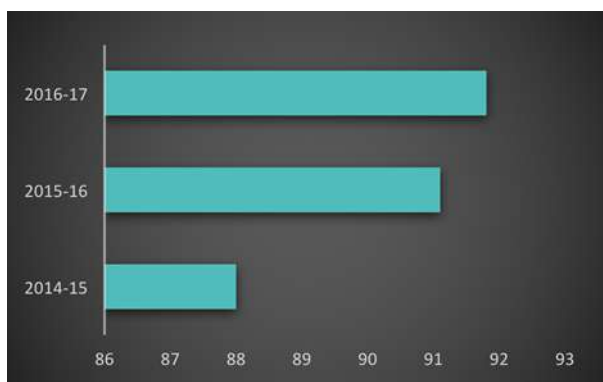
Production:

Our company produced 139.21 Million Tonnes (MTe) of coal during FY 2016-17 with a growth of 0.95% of previous year. Most of our coal production, was reaped from our opencast mines (OC). The coal production from open cast and underground mines (UG) from last three years is depicted in the figure. Off- take of coal during this year is 143.01 MTe with a growth of 1.99% of previous reporting year. The details of production performance and economic performance is provided in the Annexures in our Key Performance Indicators.

Coal production (in M.Te.)



% Production by Surface Miner

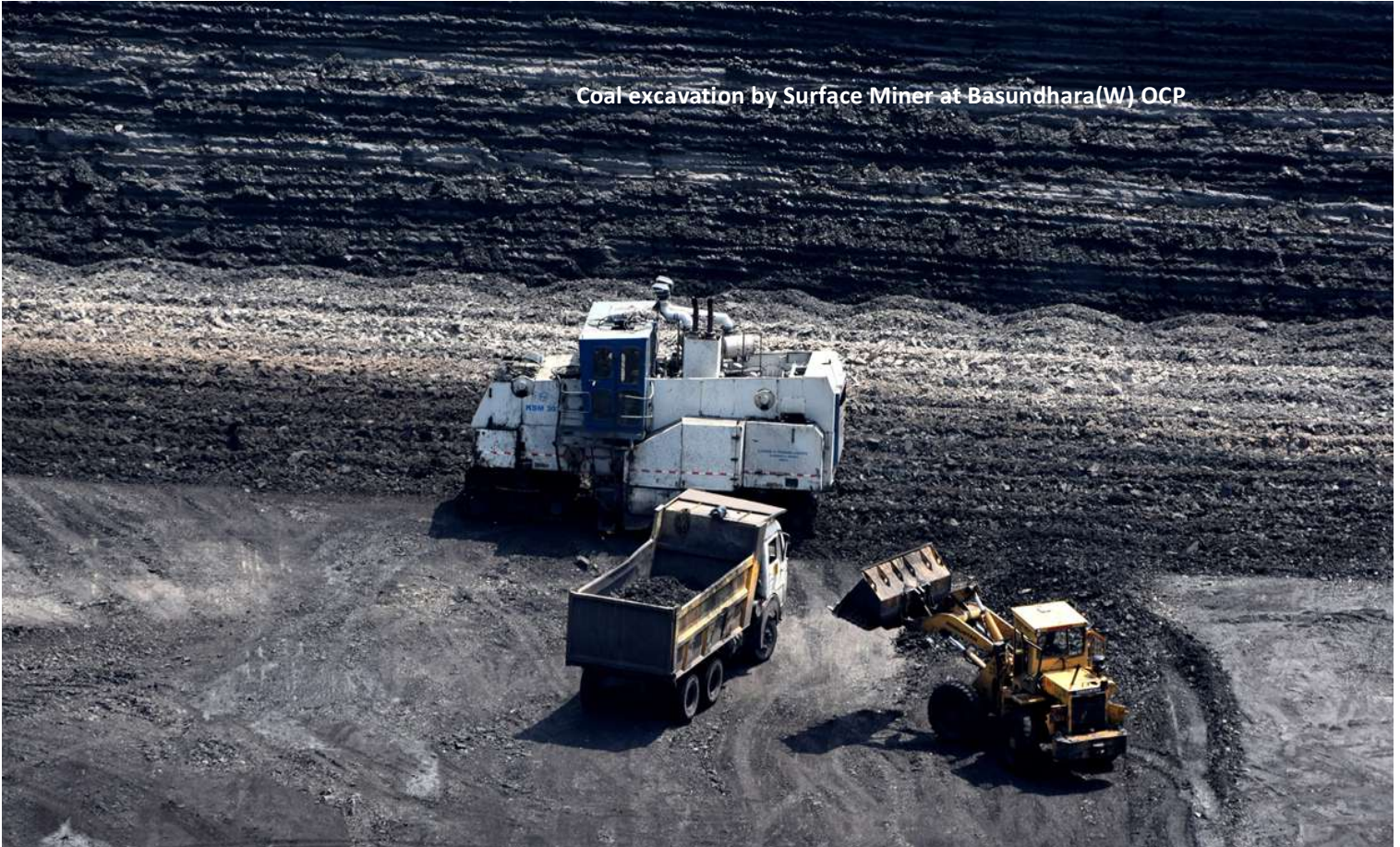


MCL is the first subsidiary of CIL which introduced Surface Miners –blast free technology ensuring high productivity with minimal environmental impact. There is steady increase in the share of coal production by surface miners which eliminated conventional methods like drilling, blasting, loading and transportation, which is time consuming, labour intensive and costly. Our production by surface miner FY 2016-17 has increased to 91.8% against 91.1% in previous year (Depicted in figure).

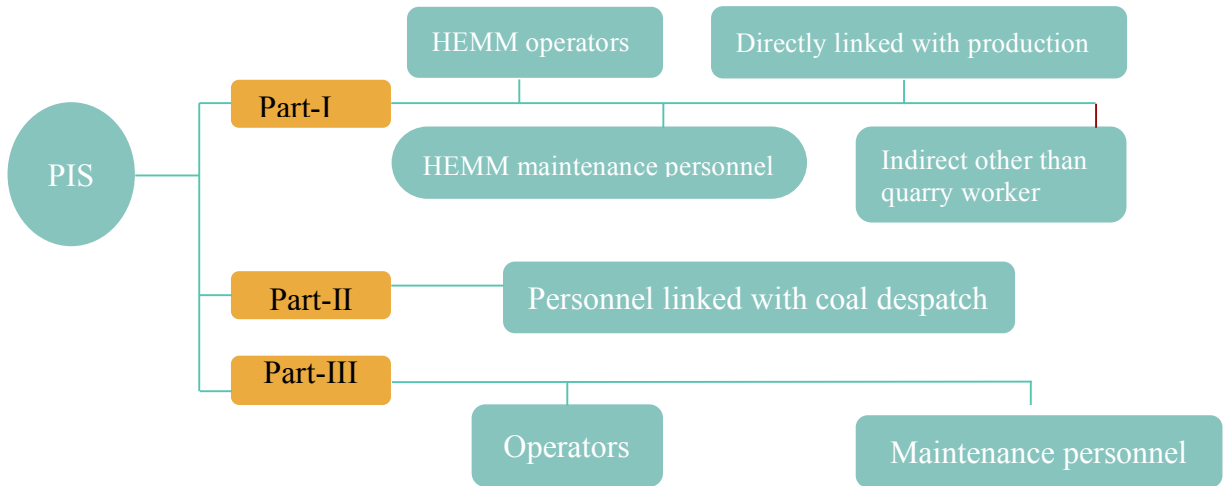
Coal production and OB removal accomplished is only 83.4% and 82.2% of our annual appraisal production (AAP) target this year. There are some reasons that prevented us from achieving the target.

- Restriction of productivity due to attainment of Forest clearance for Ananta OCP.
- We are unable to work due to rehabilitation and resettlement problem at Bharatpur OCP, Kaniha and Balaram OCP
- Due to numerous faults at Lingaraj mines, we are unable to reap our coal.
- There was also strike by local villages at Talcher Coalfield on 30th and 31st March, 2017.

Coal excavation by Surface Miner at Basundhara(W) OCP



Productivity improvement scheme(PIS) was formulated and approved in 2009-10 with the basis of the productivity values with the purpose of motivating the employees. This scheme helped us in improving the daily departmental production and trips, and to maintain the availability and utilization of HEMM. The program also aimed to reduce overtime, in creating a productive climate and encouraging healthy competition amongst the operators and maintenance personnel. A software has been developed through coal net MCLs system department, in coordination with the Industrial Engineering department (IED) for speedy calculation of PIS earnings. We even focus on Rapid Loading System to improve coal despatch process. Other measures include the installation Of GPS based vehicle tracking system, Operator Independent Truck despatch system (OITDS), Weighbridges with RIFD are discussed later in Vigilance part. All these lean practices make us committed to the improvement of productivity. We also have Personnel information system for capturing detailed information along with photographs of contractual workers, Periodical Medical Examination, tenders and awards below Rs. 2 lakhs, File tracking system, online contract management systems etc., The activities like Road sale & Rail sale billing, billing payment status entry, updating of employee data, Production detail entry, online material management system etc. are operational in central coal net server up to Area and project level.



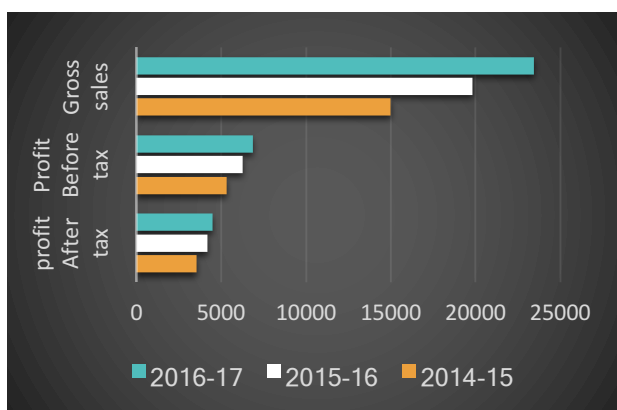
Man riding system at HBI Mine.



Shri O.P.Singh DT(P&P) at GST meet

Economic:

Economic Performance (INR Crores)



During FY 2016-17, our company achieved all time high Gross sales value of Rs.24291.14 crores (including STC) with a growth of 17.93% of previous year. Since last ten years MCL has been consistent in payment of dividend. Interim dividend of Rs.2982 crores has been paid on Equity share Capital during this year. The profit before tax for this year is Rs.6853.32 Cr with a growth of 9.069% of previous year. The profit after tax for this year is Rs.4491.09 crore against last year's PAT of Rs.4207.75 Crore.

We received a financial assistance from Ministry of Coal, Government of India in terms of Coal Mines (Conservation & Development) Act 1974 towards sand stowing and protective works of Rs. 2.24 Crore and have not given any donations to any political party during the reporting period.

MEET Vuppla Venkata kama Raju : Aspiring Finance professional

V.V.K.Raju, General Manager, Finance

Here we introduce you to our finance professional “V.V.K. Raju”- General Manager (Finance). Since 1987 he is associated with CIL and during his career he worked for different posts from Finance Manager (E-2 Grade) to General Manager (E-8 grade). He graduated B.com (Honors) from Barampur university and pursued his CA from Institute of Chartered Accountant of India and also holds LLB degree. He worked with different subsidiaries of CIL but most of his corporate journey is associated with MCL.



In 1993, he joined MCL HQ after working 6 years for SECL. He even worked with Vigilance department for period of 9 months at MCL HQ. During his period at Balanda Project (Jagannath Area) he worked under the guidance of chief general Manager and with area accounts office where he functioned as “Second man of Area Financial Manager”. Being finance is a staff function where the performance of sum cannot be measured in physical terms. **He is that champ of finance department of CIL who developed Excel program for Over Burden Removal accounting for MCL way back in FY-2000, thus increasing the work efficiency among the executives and staff.** During his tenure in Balanda project he developed no. of user friendly excel programs like income tax computation of all employees, house building advance calculations etc.,

He also worked for Western Coalfields Limited as Area finance Manager/ Deputy GM (Finance) at Kanhan and Chandrapur areas and as chief of internal audit at WCL,HQ. And on promotion as General Manager (Finance) he was transferred to join MCL. He finds the work culture of MCL competent where all workers and supervisors are very co-operative, and believes that participative management is at the helm of the environment. He is now working towards the implementation of ERP which would help the tracking and delivery of files in short duration.

However, he feels that facilities like infrastructure can be considerably improved.

In his own words

“I would like to push the idea of demolishing the aging colony structures to place multi stored buildings to eliminate the shortage of quarters for the employees.”

Contract Management- An asset to Business relationships:

We at MCL, believe in deeper business relationships built with trust, understanding and empathy. In our procurement practices, we maintain transparency with our supply chain vendors to produce more sustainable goods and services. We maintain the trust regarding the delivery of resources during the process. It is also our aim to broaden our supplier base and establish the youth in the state of Odisha as entrepreneurs, for a more evolutionary approach that will keep growth at every stage of our operations. To this end, we provide business opportunities to small scale industries (SSIs) and extend similar support to our PAFs, through a unique vendor development scheme only through nominations.

Procurement practices:

At MCL, the procurement is decentralised and individual departments request for the services they need, independently. This ensures that there is quick decision making and better responsibility and accountability at the core of all our structures and their functions. Then our materials and management Division handle the procurement of these products. We follow procurement policy of CIL which adheres and resonates with our sustainability side. The procurement process involves e-tendering where bidders upload their credentials and quotations. From amongst the bidders who meet the qualification criteria, the bidder with an L1 quote is selected, after they accept all our terms and conditions.

Supply chain Vendors:

We always look forward for strengthen relationship with vendors who are not engaged in corruption. We have made it a mandate for our bidders to sign an 'integrity pact' before they bid for any work. We also have Independent External Monitors (IEMs) who keep track of any corrupt practices of our vendors. Our suppliers even have the privilege of approaching these IEMs. We maintain honest relationship with our vendors throughout our project tenure, to ensure that they offer prompt services, whilst meeting set deadlines. We invite their suggestions to vigilance department to improve our procurement process. We also resolve any grievances that our vendors have.



Supply chain Vendors for coal production orient products and services

- BCML (Transportation and over Burden Material)
- BEML (Equipment's and spares)
- SAIL (Iron and steel materials)
- Beltings (Fenner, Forech)
- Conveyor Beltings (International conveyors)
- Other large sector enterprises and SSIs

State level vendor development programme cum buyer's seller meet organized by MCL in association with MSME-DI Cuttack and RC Sambalpur.

REGULATORY COMPLIANCES

We at MCL, follow regulatory compliances making sure that our mining activities conducted should be reasonable and within legal parameters to hold the long-term success of our business, from its financial health to our reputation within our industry and with clients.

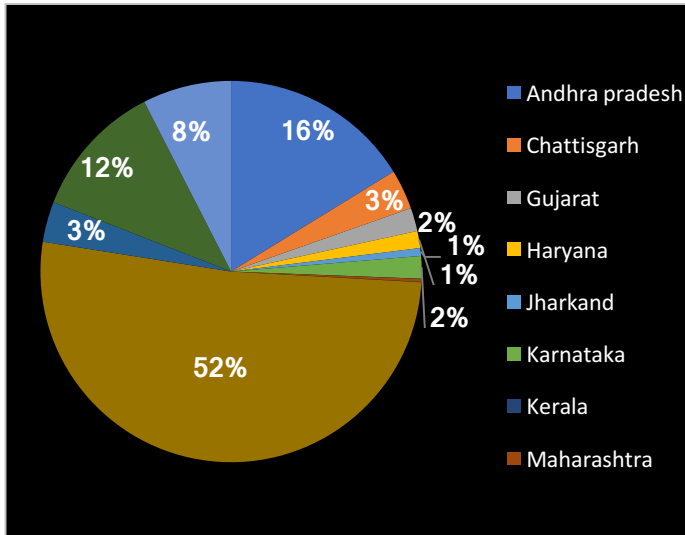
During initiation or for expansion of a project, we follow proper guidelines of MoEF to obtain Environmental and Forest clearances. Besides, during production activities, we need to monitor the environmental conditions on a regular basis and submit reports to the SPCB and MoEF as per the statute. At MCL, our routine environmental monitoring, of air, water and noise are carried out through CMPDI laboratories, duly recognised by the Central Pollution Control Board (CPCB). We strictly adhere to the methodology, frequency, etc. as per the guidelines laid down by CPCB.

We have registered for an Integrated Management System conforming to Quality Management (ISO 9001:2008), Environmental Management (ISO 14001:2004) and Occupational Health & Safety Management (OHSAS 18001:2007), to ensure compliance with environmental norms and standards. We are also in the process of applying for accreditation for ISO 50001:2011 for an Energy Management System to manage the rationalized consumption of all energy inputs in our organization and for SA 8000 SAM for managing social accountability concerns of the organization.

Coal Evacuation:

It is our responsibility to provide the demanded quantity of coal to our customers on time with transparency which enables us to retain their confidence in us. We have well established system for tracking the quantity of coal we dispatch to our customers. We dispatch about 64.69% of our coal through railways. We also have other facilities for coal transportation through road, merry-go-round (MGS) and conveyor belts to fulfil needs of consumers. We use in-motion weighbridges at railway sidings, electronic rail bridges and standby weighbridges and have succeeded in achieving 100% weighment of our coal supplies. We strive for high Customer satisfaction levels for ramping-up performance of our business. We assess their issues by frequent interaction, maintaining records of complaints at sidings and getting feedback from them for timely and relevant evolution of our systems. We have even created exclusive portal for consumer complaints, where registered consumers can list their grievances. We have Nodal officers of QC department who continuously monitor the railway sidings.

We fulfil energy needs of various sectors like power, cement, CPP and coll. Consumption through the supply of our energy basket. Interested buyers lift up our coal through FSA (Fuel Supply Agreement) or through e-auction, by dealing them as per the directives of the MOC/CIL or the FSA.



State wise Coal Dispatch for FY 2016-17

The balance quantity of coal after being lifted by customers is used as an indicator of customer satisfaction. When a customer lifts beyond the trigger level, they pay an incentive to MCL. When the supply is below trigger level, MCL plays a compensation to the customer. Due to these in-built mechanisms in our selling schemes, fines for non-compliance with laws and regulations concerning the provision of use of product and services, do not apply to MCL.

During 2016-17 MCL had offered 44.646 MTe of coal under spot, forward and other special type of e-auction against 32.405 MTe which was booked by different bidders registering a premium of Rs.733.24 Crore over notified price. During FY 2016-17, we supplied coal to 12 states in India namely Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Orissa, Punjab, Tamil Nadu, West Bengal.



Clean production strategies:

We have adopted several initiatives for clean strategies to abate our impact on global climate change, which will improve the sustainable performance of MCL in the long run. The vital aspects of initiatives- the optimization of energy usage, afforestation and water governance.

Optimization of energy usage:

Fuel(HSD) and electricity being our primary energy sources, we intend to maximize utilization of them by adopting low carbon technologies like surface miner and also implementing alternative renewable energy resources.

Afforestation:

It is always remembered that one tree means one life and it is to be saved for our own safety. Land clearing activities in coal mining, ultimately results in the loss of forests and their benefits. Sound development of Environment becomes an important requirement for MCL, which steer us to increase green cover to reduce the dust emissions produced and also the elevated temperatures of areas in the premise of our mining locations.

Water governance:

Every stage of coal's lifecycle—from mining to processing relies on water. The water we use is either extracted from surface water sources or the water from our mine sumps. We are focused on more target base approach to maximise our storage capacities than withdrawing the water from surface resources. We are further fulfilling our domestic purposes in Basundhara colony by treating the abandoned Mine sump water. We also divert surplus water for recharging the aquifers.

Energy Efficiency

We are acting now and adopting policies for full potential of energy-positive efficiency in concern with renewable energy resources and low carbon technologies. Our efforts are tuned to reduce our consumption for both fuel and electricity.

Fuel Efficiency

We extensively use various types of fuel for our Heavy Earth Moving Machinery (HEMMs) (draglines, shovels, surface miners, dumpers, dozers, drills, loading machines, graders, water sprinklers and cranes) and other LMVs that we employ for coal production, OB removal and coal transportation. We also use raw materials such as explosives, detonators, and so on. Fuel for these HEMMs accounts for our high direct energy consumption. During FY 2016–17, we used a total of 46528781 L of fuel (including diesel, petrol and lubricants) for our HEMMs, departmental vehicles, and D.G. sets. This translates that 1670686 GJ of energy is being consumed. The fuel consumption in our contractual vehicles was 84025637.4L equating to 3024170 GJ of energy consumption. The following figure on 'Fuel Consumption Trend' depicts our usage during the last three years.

Fuel consumption Trend (L)



During FY 2016–17 we have attempted to curb our fuel and electricity requirements. In order to minimize our consumption of fuel and lubricants, we have taken the following steps:

- Periodic overhauling of engines, transmission and hydraulic operated systems
- Periodic checking of hoses and their routing
- Preventing the leakage of hydraulic oil from equipment
- Ensuring the proper inflation of tyres
- Regular surveillance of self-starters, alternators, and batteries
- Monitoring of our specific diesel consumption as per the norms of CMPDI

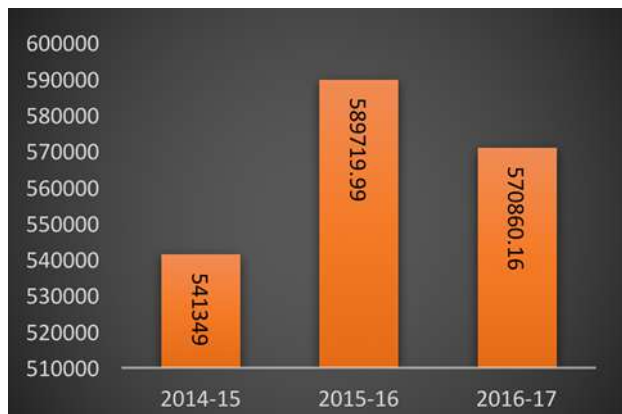
All these efforts have decreased the usage of Fuel and lubricant consumption for coal production by 4.78% and 17.59% respectively.



Dragline Operation at Bharatpur OCP

Carbon footprint:

TCO₂ Emissions



The use of surface miners for excavation of coal and substantial green cover helps us to control our carbon emissions. The production of coal through surface miners FY 2016-17 is 91.8% which was elevated by 0.7% compared to the previous year. We estimate that we are able to avoid approximately 1,30,000 TCO₂ emissions due to this. We estimate a carbon footprint reduction of 1,04,380 Te of CO₂ at the rate of 20 kg per tree per year, due to our green shade.

In addition to this we also ensure to reduce our diesel consumption (Departmental vehicles). During FY 2016–17, our carbon emission was recorded as TCO₂ due to fuel consumption in our departmental (Scope 1) and contractual vehicles (Scope 3) and our electricity consumption (Scope 2).

We took the following initiatives to reduce electricity consumption.

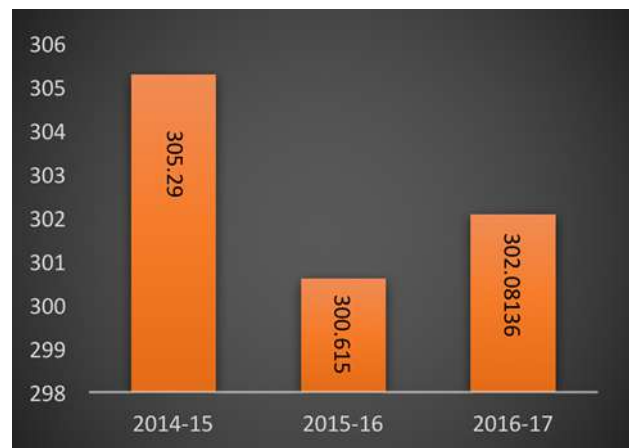
1. Conventional lamps were replaced with LED lamps.

- 19 Watt LED tube lights as replacement of 40 Watt conventional light - 5956 nos.
- 10 Watt LED tube lights as replacement of 20 Watt conventional light - 500 nos.
- 90 watt LED street lights as replacement of 400W/240W HPSV- 453 nos.
- 45 watt LED street lights as replacement of 90W/150W HPSV- 60 nos.
- LED cap lamps as replacement of conventional cap lamps- 3500 nos.

2. As mentioned in earlier sustainability report, MCL is procuring only 5star rated ACs. In FY 2016-17, 89nos. of 5star rated ACs were procured in additional to 60nos. which were procured in FY 2015-16.

By our cautious efforts, we have achieved a reduction in fuel consumption (Scope 1& 3) compared to the previous year and carbon equivalents of electricity has increased compared to the previous year.

Electricity consumption (Million KWh)



The electricity consumption within our operations in FY 2016-17 is 302.0813 Million Kwh. We regret to inform that there is a slight increase in Electricity consumption by 0.48% with respect to the previous year.

Renewable Energy

The sources of carbon-free electricity with the most potential, Solar power plant of 2.016 MW peak was installed in MCL (Anand Vihar complex). The project has earned us 14,979 RECs (Renewable Energy certificate). During the reporting period of FY 2016-17, the plant contributed to a reduction in our carbon footprint by 21,03,637 Kg of CO₂. We have also initiated a project of installing 12 solar rooftop plants over our service building, workshop, hospital.

Water Management:

Water is a necessary resource for many of our operational purposes, such as, suppression of dust, coal washing, and cleaning of HEMMs as well as domestic requirements.

Ground water issues

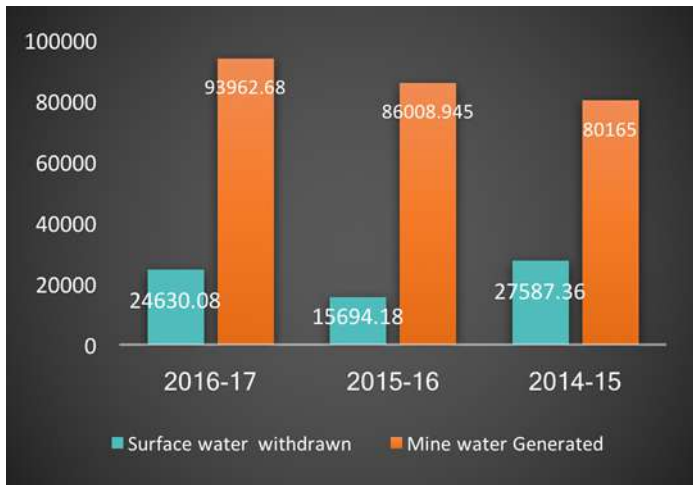
Issues related to availability of ground water is a major concern to MCL as most of its operations in water stressed zones of Odisha. Owing to the natural climatic conditions and terrain, it is difficult to evade the problem of water quantity and quality completely. To evaluate the sustainability of ground water for our purposes we understand the chemical composition of groundwater. Being a responsible corporate, we consider it our duty to make this essential resource available to our extended family – our local community.

We always thrive to attain our long term goal of achieving positive water footprint. In this regard, the best way to reduce our usage of surface water by efficient water storing and maximising the recycling of water, even we take measures like implementing controls to mitigate the impact of disproportionate water discharge. The water that we use in our operations is either extracted from the surface water sources or is the water stored in our mine sumps. Mine sumps are natural water harvesting structures created after complete evacuation of coal from a mine pit. These mine voids are a great boon as they have the capacity to store sufficient water for our industrial and domestic needs. Regular monitoring of ground water quality and fluctuation due to mining operation is being done through a network of 40 nos. of piezometers as well as other bore wells.

Water consumption

Surface water is far easier to reach, so this becomes the most common source of our water needs. The surface water sources for our operations are Brahmani, Mahanadi, Ib, and Basundhara rivers, and also the power channel on the Mahanadi River. Using this source in a responsible way is a major part of the way we operate in terms of sustainable reactions to our water based needs, even as we seek to recycle water and replenish this source. During the reporting period of the FY 2016–17, we drew only 24,630.08 million liters of fresh water from these various surface watercourses and recycled approximately 37.93% of total mine water. We have ensured that these sources were not affected due to the withdrawal of water for our operations. We witnessed that storage in mine sumps through rainfall and surface runoff has enhanced significantly (Refer graph on ‘Surface water vs Mine Sump Water’).

Surface Water vs Mine Sump Water (Million Liters/year)



Also, we observe that our current usage of mine water has been 34,737.780 million litres. All these factors put together has resulted in reduced water quantities when it comes to withdrawal from surface water sources. This further boosts our enthusiasm to continue with a more target based approach to maximise our storage capacities, maximise recycling and reduce our overall usage to have a positive water foot print.



Water harvesting at Jagannath OCP

Drinking water supply

The water we supply for drinking and domestic use, is withdrawn from surface water sources or from mine water sumps is adequately treated in our Water Treatment Plants (WTPs) operational in Talcher, Ib valley, Belpahar and Basundhara under the Integrated Water Supply Scheme (IWSS). Treated underground mine water is also supplied as water for drinking, domestic and agricultural uses to the surrounding villages in our mining areas. Around 11,125 KLD and 756KLD of drinking water is supplied at Talcher subdivision and Ib valley Coalfield.

Wastewater treatment

We bid ourselves to utilise the water in a sensible way. We carry out the wastewater treatment by emphasizing the concept of recycling and zero discharge. At present, there are 9 sewage treatment plants (STPs) operating in townships. We also have settling ponds to trap the silt from mine establishments runoff. There are 22 operating settling ponds which are Mine drainage treatment plants (MDTPs). We have also created garland drains and catch drains around the quarry boundary and OB dumps. These are used to arrest sediments and silting of natural drainage. Our HEMM workshops are facilitated with oil and grease traps (OGTs) and workshop effluent treatment plants (WETPs) for the removal of oil and grease as well as the oil sludge from the waste water generated after cleaning our HEMMs. At present, we operate with 17 WETPs. Additionally, we have adopted the zero-discharge strategy for all the ETPs/OGTs of HEMM workshops and the treated water is completely reused in the workshops.

Making waves in water innovations

- **Zero Discharge- Down to earth.**

We at MCL, manage exact quantity of water, the losses due to evaporation and strata seepage, the consumption statistics and finally the surplus water quantity. The excess water has been redirected to artificial recharge pits created just below the surface level. Excess quantity of mine water is used for Drinking purposes, Agricultural purposes and for ground recharge. During this FY 2016-17, 49490604.4 lakh m³/yr of water is made available for ground recharge.

- **Robust technique- Transforming our de-coaled mine voids in to huge water harvesting structures:**

The water which is accumulated inside both opencast and underground mines from various sources like rainwater, water from OB dumps, coal stockyards, and other catchment areas are pumped in to the de-coaled voids and use the same for domestic and industrial use and in the long term it ensures recharge of the underground water table.



Supply of water from Deulbera UG Mine to Talcher Municipality Pond



Recharge of Khudopalli Village Pond from Bundia UG Mine water

AIR QUALITY MANAGEMENT:

Emission of dust and other particulate matter is a consequence of the nature of our operations like cutting and loading operations of coal, loading and unloading operations of OB and coal, coal transportation on haul roads, dozing operations at OB dumping yards, and heavy vehicles plying on haul roads. Besides, the intensity of mining activities, the type of vehicles and equipment used, and the geological and geomorphologic setting add to the magnitude of emissions. The environmental factors such as temperature, rainfall and humidity may also interfere the intensity of dust emissions and depositions. Mines are not static, and have continuously changing footprints with respect to haul road location and distance, the size of waste rock and tailings sites, and have varying production and mine development rates.

Keeping all this in mind, we already have well-defined air quality management system in place, which includes both air quality monitoring and air pollution control measures. We regularly track the total particulate matter (TPM), PM 2.5, SO_x, NO_x and ensure that they don't rise above limits. Besides this, we also adopt several mitigation measures as a step to deal with the current emission and also implement changes in present practices to minimise dust release in long term.

Air quality monitoring:

We monitor air quality at our monitoring locations twice every month to assess the level of pollution in the ambient air of the areas located in and around our coal mines and projects. The monitoring locations have been decided with concerned Regional officer, SPCB and CMPDI, a subsidiary of coal India. This air quality data helps us to determine the efficacy of our air pollution mitigation measures. The data on air quality is available in our annual environmental monitoring report, submitted as per the Environment (Protection) Amendment Rules. Refer to the table on Air quality data-FY 2016-17, for pertinent details of air quality parameters.

Air pollution control measures:

We engage ourselves to mitigate the dust emissions at Extraction stage by making changes in our conventional mining methods and also at transportation stage.

Extraction stage:

Surface miners:

We have adopted surface miners technology way back in 1999 and this technology has helped us eliminate dust generation during several activities namely, drilling, blasting and crushing. This mining process indirectly reduces the generation of greenhouse gases. In our conventional methods, we completely changed to wet drilling and in addition that they have dust extractors. During FY 2016-17, we produced 91.8% of our coal (139.20 MT), using surface miners. In CHPs, we have misters and fixed Sprinklers even though our conventional coal production is negligible (8.29% only) to reduce dust generation significantly.

Transportation stage:

From the mine to market philosophy in our sustainability approach, we adopted an eco-friendly mode of transporting coal (via railways) to our end users. During the FY 2016-17, we transported 73.8% of coal through rail mode and 26.72% by road. A single railway rake (3,800 Te) reduces the dust equivalent to plying of 240 trucks each carrying approx. 16 Te of coal. Rake loading facility and rail infrastructure being strengthened presently. The coal is dispatched through 22 sidings and 4MGRs. Average number of rakes per day is 35.3 rakes in Talcher Coal field and increased up to 30.9 rakes in Ib Valley Coalfields.



Fixed sprinklers at Belpahar Coal siding



Mobile sprinkling for dust suppression at Ananta OCP

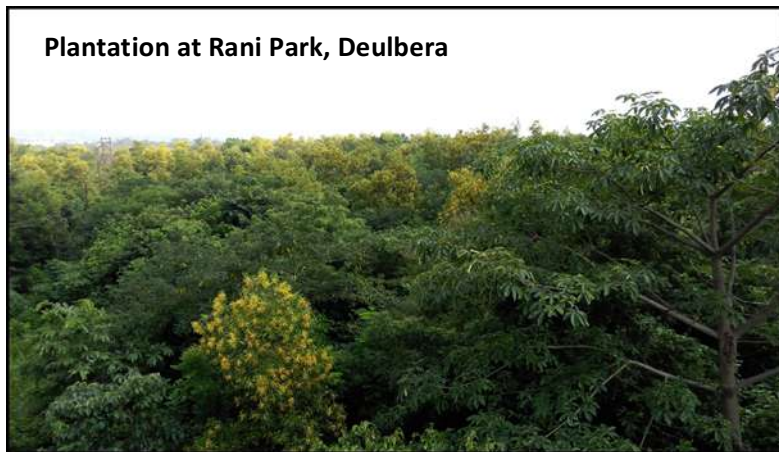
In addition to these, separate coal transportation corridor has been constructed in both the coalfields avoiding residential area, schools and other areas. Length of dedicated coal transportation corridor is 20.99 km in TCF and 17.03 km in IBCF.

Construction of 6 SILOs at all major OCPs of MCL are now in the pipeline to avoid massive dust during loading. The progress of SILO arrangement at Bharatpur siding is 99.4% and at Lingaraj Siding is 85.88%.

Apart from the eco-friendly technological changes that we have implemented, we also put in significant effort to suppress the air borne dust. During FY 2016-17, we deployed 80 mobile water tankers (capacity 28 KL) to control the dust emission in our mining areas.

To settle the dust generated during transportation, outside MCL areas, we sprinkle water through mobile water tankers of 12KL capacity on a contractual basis. We have also installed fixed sprinklers in all our railway sidings for the same purpose. We have deployed three heavy duty truck mounted, vacuum-operated mechanical road sweepers to sweep and collect any coal spillage and dust over pucca coal transportation roads at Talcher Coalfield.

Now we are working towards procurement of mist blower cum road fogger on hiring basis, for all the areas. Besides all these we continue our efforts for strengthening the black topping of permanent and semi-permanent roads to avoid dust when the trucks ply over them.



We conserve the bond between the green cover and the suppression of dust by developing green belts between residential areas and our mines.

➔ Mine water is provided to this 150 ha area for green growth.

Noise and ground vibration control measures:

We take adequate measures to curb noise and **ground** vibration including various engineering, administrative controls and management procedures. All workers in high noise generating sites are provided with personal protective equipment's (PEE) like earmuffs and earplugs. We also train workers to properly use PPE onsite to reduce their exposure to noise pollution. All HEMMs have been provided with adequate noise level reduction technologies. Non-electric detonators are used where ever necessary for blasting resulting in less noise and ground vibration. Controlled blasting system is adopted to reduce noise and ground vibration.

Coal Quality- Clean Energy

The product quality defines how efficiently and effectively it serves the need with less undesirable environmental impact throughout its life cycle. To ensure our business to succeed, it's essential for us to supply different power houses including our other customers with high quality coal without impurities such as rock and slate. We know that customers won't buy from us if they receive an inferior quality of product, so we take great care to retain and even improve the grade of the coal we supply, through several initiatives.

The sampling and analysis of coal is conducted in accordance with the guidelines of the fuel supply agreement (FSA) before we despatch the coal to our customers. We measure the gross calorific value (GCV) and the UHF element of our coal in our laboratories with the help of Auto Proximate Analysers and Auto Bomb Calorimeters. These equipment's enable us to determine the grade of coal within two hours.

We have ten coal analysis laboratories in different areas of our coalfields. In the Jagannath, Bharatpur, kaniha and Ib Valley Area's the coal analysis laboratory have been conferred with the grant of NABL accreditation certificate with the dates as mentioned against their names: Ib valley (24.05.2015), Bharatpur (12.04.2016), Jagannath (30.05.2016), Kaniha (18.03.2017).

Necessary steps have been initiated by the authority for obtaining accreditation of coal analysis laboratories for remaining five areas.

The samples with respect to seam, stock, siding & tipper samples were assessed by adopting stringent sampling by CCO, Kolkata and by the team of IIT Guwahati and declared as appropriate grade for the period 2017-18 in respect of all the mines of MCL.

For better transparency, CIMFR and Quality Council of India have been deployed as independent third party sampling agencies to carry out the analysis activities of coal supplied to IPP, Power utility consumers and non-regulated sectors like CPP, sponger and cement sector etc.

Awareness campaign “QUALITY FORTNIGHT” has been organised by QC department from 14.02.17 to 28.02.17 in all areas. All area personnel had whole heartedly participated. With all these efforts, we manage to retain our position in the Indian coal Market and we do not participate in sale of banned and disputed products.



Transportation of Coal through Conveyor at Jagannath OCP



Loading of coal into rakes at Belpahar OCP

We designed our initiatives to provide high quality coal in sustainable manner from the mine to market. The different initiatives are

- At Extraction Phase:

The gradual transition of extracting coal from traditional opencast mining methods to surface miners help us to produce coal without rejects from the coal seam. During FY 2016-17, approximately 92% out of the total coal production have been achieved using surface miners. Surface Miners have been deployed in all the mines of MCL.

- Processing Phase:

Coal beneficiation plays very important role in the mining life cycle. We supply coal to our customers by proper sizing to 100mm at CHPs and FBs (feed breaker). We have two major CHPs at Jagannath OCP (2 MTY) and Bharatpur OCP (3.5 MTY). Furthermore, we are putting our efforts for installation of four coal washeries namely

IB- Valley washery (10 MTY) at Lakhanpur, Basundhara washery, Jagannath washery and Hingula washery. Commissioning of washery projects takes time to come into force as the processes of land acquisition, environment as well as forest clearances take considerable time.

Status of the two washeries under Phase-I [BOM (Build-Operate-Maintain) Concept] are as follows:

	IB- valley washery	Basundhara washery
Location	Lakhanpur	Basundhara
Concept	BOM	BOM
Capacity (MTY)	10	10
Letter of Intimation	Issued to the Lowest bidder- M/s Global coal & Mining Pvt. Limited on 12.09.2016 after approval from MCL board	Issued to the lowest bidder in may 2014.
Environmental clearance	ToR was issued by MoEF on June'15. EAC meeting was held on 31.01.2017 and minutes were uploaded on MOEF&CC website on 14.02.17 recommending EC for the project. EC is yet to be received.	ToR was issued by MoEF in September 2014. Amended TOR received on 29.02.2016. EAC meeting was held on 28-02-2017. As per the minutes of meeting received on 10-03-2017, it was decided not to recommend the proposal, but to wait for the firm action plan to be submitted addressing the requirements contained in Mine closure status report. This issue is being taken up by the Environment Dept., MCL.
FAC meeting	No forest land is included at the selected location.	FAC meeting for stage-1 FC of 29.41 Ha of Forest land was held on 28-02-17. Minutes of meeting uploaded on 17-03-17 FAC recommended that, the layout of proposed washery shall be changed to the extent that the patch of forest coming under proposed land for diversion could be avoided. This issue is being taken up by the Environment Dept., MCL
Acquisition & Possession	-	Administrative approval of 6.82 Ha tenancy land received from MoC on 18-01-2016 and acquisition is expected by June-17. Acquisition & Possession of 0.85 Ha of Govt. Non-Forest land is expected by June'17.
Letter of Award	Can be issued only after EC & other statutory clearance.	Can be issued only after EC, FC and possession of land (Forest land, Tenancy land & Govt. Non-forest land)

Status of the two washeries under Phase-I [BOO (Build-Own-Operate Concept) are as follows:

Initially, all the Washerries were under BOM concept. But in the meanwhile, directives received from CIL regarding the decision of MoC that all the new proposed washerries, whose tender was to be finalised, should be built on BOO concept was placed before MCL Board in its meeting held on 28-02-2016. While noting the change of concept, MCL board noted that it is being done at the CIL/ministry.

Under BOO concept, washery is to be set up by BOO operator and the land and operating cost for the washery will be given by MCL.

	Hingula Washery	Jagannath washery
Location	Hingula	Jagannath
Concept	BOO	BOO
Capacity (MTY)	10	10
Environmental clearance	ToR was issued by MoEF on January'14. EC was granted on 30-10-2015 on BOM Concept.	ToR was issued by MoEF on 13-08-15. Amendment ToR dated 01-02-16 in respect of BACKFILLED AREA AND Green Belt has been received. EC was granted on 31-09-16 on BOM Concept. As there is need of modification in some of the specific conditions ,EAC meeting held on 27-12-16 and the committee recommended amendments in the EC Dt. 31-08-2016, as requested by project proponent. Amended EC is still waited.
Consent to Establish	It was issued by SPCB on 29-12-2015 and received on 30-12-2015. It was granted on BOM Concept.	It was issued by SPCB on 22-10-16 and received on 30-11-2016. It was granted on BOM Concept.
Letter of award	It was issued to M/s. MIEL cancelled on 03-11-2016 due to non-submission of PFS within the stipulated period and Bank Guarantee against Bid security of M/s. MIEL has already encashed on 05-11-2016.	Tender was floated in e-tender mode on 1-06-2015 was cancelled due to rejection of offer of L-1 Bidder due to non-submission of requisite confirmatory documents. The L-1 bidder has filled a writ petition challenging the cancellation of tender at Hon'ble High court, Cuttack, Orissa. The case is still pending for hearing.
Status of Bid document	CMPDI submitted the Draft Bid documents for setting up of washery under BOO concept in Feb 2017 and comments were sent by MCL followed with a detailed deliberation on the Bid document on 20-03-2017.	

- **Transportation Phase:**

Our QC department constantly monitors the coal quality across rakes, by taking random samples from seam, stock, siding and tippers, before the despatch phase begins. Frequent inspections of Weigh Bridges and Laboratories are being done regularly. For consumers like Hindalco, Bhushan & steel power Ltd, Vedant, we conduct joint sampling with CIMFR at all loading points of the concerned area. We respect our customer's suggestions in respect of coal quality/sizing & other facilities.

The representative of customers present at the time of loading can give their suggestions. The bound pagged registers has been kept in all sidings/ loading points.

We regret to inform that the number of quality based complaints received this year are 55 against 44 in the previous year.

- **Combustion phase:**

This is the phase where the power is generated. MCL is making efforts to provide washed coal for generating power in a sustainable way. Once washeries are started MCL can dispatch more than 70% of the washed coal to the demanding power sector. As the washed coal increases the efficiency of the boiler and leads to less consumption of coal per tonne for achieving the desired heat value thereby making it more efficient and reducing the cost of production.

LAND RECLAMATION:

The life span of the coal mines will be limited due to the finite nature of the resource being extracted. After the resource being extracted it is our responsibility in MCL to return the mined land to productivity through reclamation. We at MCL, employ two-step process for land reclamation.

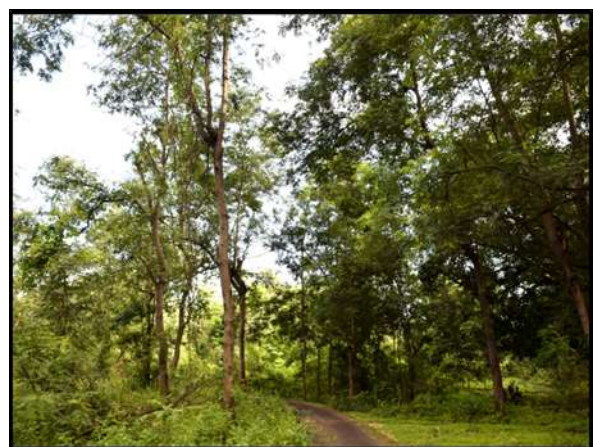
1. **Technical reclamation:**

Here we bring back the excavated land back to its original state, by backfilling the overburden(OB) material in the de-coaled voids. This process will be in action along with mining. We preserve the top soil separately at the beginning of mining and restore the quality of soil to their pre-mining level at this stage.

2. **Biological reclamation:**

In this stage, we revive the filled-up land by afforestation. It is impossible to replenish the soil minerals once mine out, however; we at MCL, restore the mined-out land by self-sustaining green cover.

Technical reclamation at Bhubaneswari OCP



Reclamation site at Bharatpur OCP

Our CIL subsidiary, CMPDI, has been delegated the work of land reclamation and they regularly monitor progress, through remote sensing. CMPDI also engages with the National Remote Sensing Centre in Hyderabad, to obtain satellite data for the areas of vegetation, backfilling, active mining to obtain relevant information. They create land reclamation maps that are useful for assessing the progressive reclamation status of our mined-out land. CMPDI also prepares an exclusive annual report on the Land Reclamation progress for both categories of mines. For more specific details on this please refer the case study “Righting the past”

Plantation

In our years of mining excellence, we identified planting vegetation is the sole remedy for most our environmental degradation issues. We adopt this measure for biological land reclamation, carbon sequestration, prevention of dust and for controlling noise etc., since our inception we have planted mixed indigenous species over external dumps and back filled internal dumps after adequate technical reclamation, as well as vacant patches of other land and avenues, in the mines. Plantations are also done in residential townships and office premises especially with fruit bearing, flowering and medicinal plants and trees.

Harvesting the joy:

We have planted 52.19 lakhs of saplings since inception. we planted 21.43 lakhs, 29.93 lakhs and 0.83 lakh saplings at TCF, IbVCF and HQ. For this FY, we have planted 1.38 lakhs saplings.

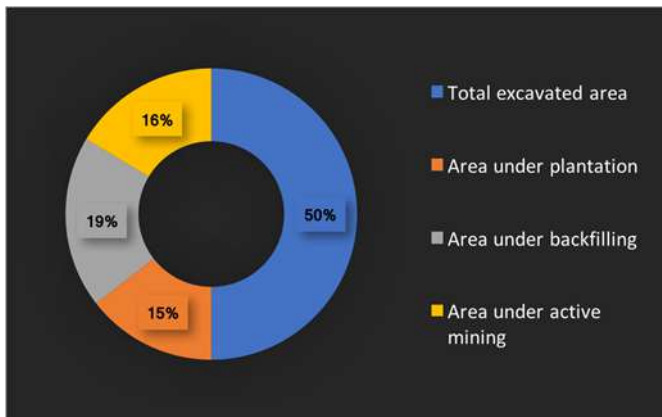
VANMAHOTSAV- A festival of life:

Vanmahotsav is a tree planting drive began in July 1947 in India as a crusade to save mother earth. We at MCL celebrating it every year in the first week of July. In this FY, we celebrated “VAN MAHOTSAV day” on 18th July,2016. we conducted rally at HQ and area level to create awareness among the people for the conservation of forests and planting of new trees. We have planted saplings of diverse species with energetic participation of school kids, locals and employees. We distributed more than 1000 fruit bearing and medicinal saplings to schools and villages at free of cost.

Righting the past wrongs

Accountability to the environment and land forms is the foundation of our mining approach. We proactively participate in environment protection activities not just to meet the statute but also because we consider it our responsibility. In our pledge to restore the barren quarries into lush greeneries, we have progressed with a systematic and technical approach for our opencast mines. Along with the gradual reclamation, we keep a close eye on the whole process of evolution of the infertile to abundant.

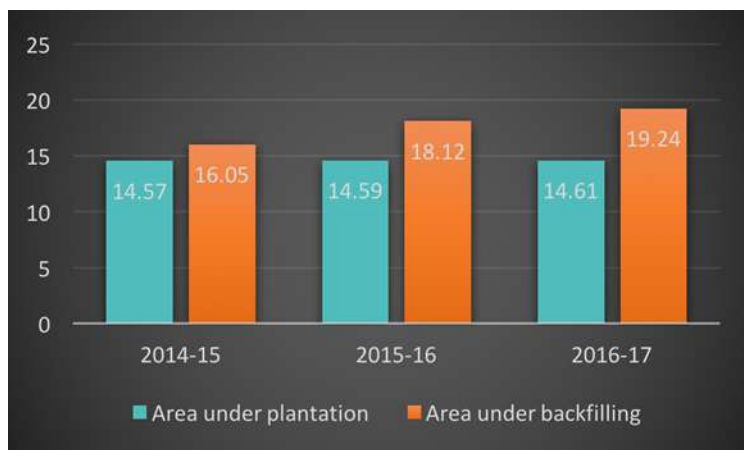
Land reclamation status OC mines (Capacity >5 Mm³/year)



During FY 2016-17, Land restoration / reclamation monitoring of 11 opencast coal mines in the Ib valley coalfield and the Talcher Coalfield producing 5 million cu.m. and more (Coal+OB) per year was done. Details of Land reclamation are depicted in the pie chart "land reclamation status-FY 2016-17 OC mines (Capacity >5 Mm³/year).

Area of biological reclamation (plantation) has increased from 14.59Km² (Yr.2015) to 14.61Km² (Yr. 2016) whereas area of technical reclamation (area under backfilling) has increased from 18.12 Km² (Yr. 2015) to 19.24 Km² (Yr. 2016) in MCL. This increase of 1.15 Km² in total area of plantation and area under backfilling is the result of the efforts of the MCL taken up towards environmental protection.

Land reclamation status in (Sq.km)



It is evident from the analysis depicted in the land reclamation status figure, that area under land reclamation has been increasing from last three years. The area under land reclamation has increased from 32.70 Km² (Yr.2015) to 33.85 Km² (Yr. 2016).

Out of 11 projects of MCL, Ananta OCP ranks on top for land reclamation (81.55%).

Overburden(OB) Management:

Overburden includes the soil and rock that is removed to gain access to the coal deposits. It is usually piled on the surface at mine sites where it will not impede further expansion of the mining operation – moving large volumes of material is expensive. As the overburden generally has a low potential for environmental contamination, so we at MCL fill it back in to the excavated mine voids which serves the purpose of landscape contouring and revegetation during mine closure. The quantity of coal we evacuate at MCL, is much more than the OB material generated. During FY, the coal production was 139.21MT and OB generated was 123.34 Mm³ and backfilled in the mine void. Hence, we are able to backfill only approx. 50-60% of the mined-out area up to original ground level. The remaining excavated area is partially filled and further developed as water harvesting places. Post backfilling operations, we carry out land reclamation which improves the moisture content, bulk density, pH, and overall nutrient content of the soil and favour soil compaction.



MINE CLOSURE ACTIVITIES:

Ministry of Coal, Govt. of India has formulated Mine Closure Plan Guidelines in 2009 and later modified it in the year 2013 which are incorporated in all approved Mining plan. We not only follow the guidelines in letter and spirit but also made it our integral part of mining operation. Our core strategy is to progress through progressive Mine Closure Plan and wind-up operation through Final Mine Closure phase. The Yardstick for claim of reimbursement from Escrow Account is as described below.

The Yardstick for calculation of 80% of fund deposited in escrow account (including interest) for opencast mines.

S.no	Major Closure Activities	% of Total Closure Cost
1.	Dismantling of Structures	
	Service Buildings	0.2
	Residential Buildings, Industrial Structures	2.67 0.3
2.	Permanent fencing of mine void & other dangerous areas	1.5
3.	Grading of high wall slopes	1.77
4	OB Dump Reclamation	
	Handling/Dozing of OB dump & backfilling	88.66
	Technical & Bio-reclamation including plantation	0.4
5	Landscaping	
	Landscaping of the open space in leasehold area	0.3
6	Plantation over cleared area after dismantling.	0.5
	Plantation - quarry area & safety zone	0.2
	Plantation over the external OB dump.	0.02
7	Post closure environment Monitoring /testing of parameters for 3 years.	
	Air quality	0.22
	Water quality	0.2
8	Entrepreneurship development	0.26
9	Miscellaneous & other Mitigation measures	2
10	Manpower Cost for supervision	0.8
	Total	100

For Carrying-out of Mine closure activities as per the guidelines of Ministry of Coal, Govt. of India, certain Amount of fund is deposited in the Escrow Account of all mines. Presently all 25 Mines of MCL have Escrow Accounts with Union Bank of India. During the reporting period of 2016-17, the balance of fund in Escrow Account was Rs.696.75 Crores including interest.

Meet C. Jayadev: Expertise in Obtaining Environmental Clearance.

C. Jayadev, Chief Manager, Environment.

In a conversation with Mr.C. Jayadev, Chief Manager(Envt.), he talks about his experience working in Environment and Forest Department and highlights the commendable efforts made by department towards improving the environment prospects along with improving the productivity of the company, by guiding and steering it towards excellence.

At CIL, prior to being in Environment & Forest Department, he started his career at SECL mines as Junior executive trainee(Mining) in 1989 after completing his Bachelor's degree in Mining Engineer from K.S.M Osmania University. He is with our MCL family since inception and continuing his responsibilities faithfully as chief Manager (Envt). He says "mining is like descending into dark for enlightenment of nation". In his opinion, mining should pair up with sustainability- which made him to take up Environmental responsibilities way back in 1997. He stood as a backbone for our environment department with achievement of 33 EC's in his 27 years of long journey at CIL. MCL accorded him with the recognition of "Sincere and Honest performance" during Vigilance Awareness week.

He believes in "Balancing Career and Company loyalty" by aligning professional career growth with company. He appreciates the team work of environment department in identifying links between their own professional goals and the company goals. His message to young generation- "Work wisely with all efforts to achieve goal and also to avoid unrequired risks that might come back to bite you".

Challenges he dealt regarding obtaining EC, in his own words

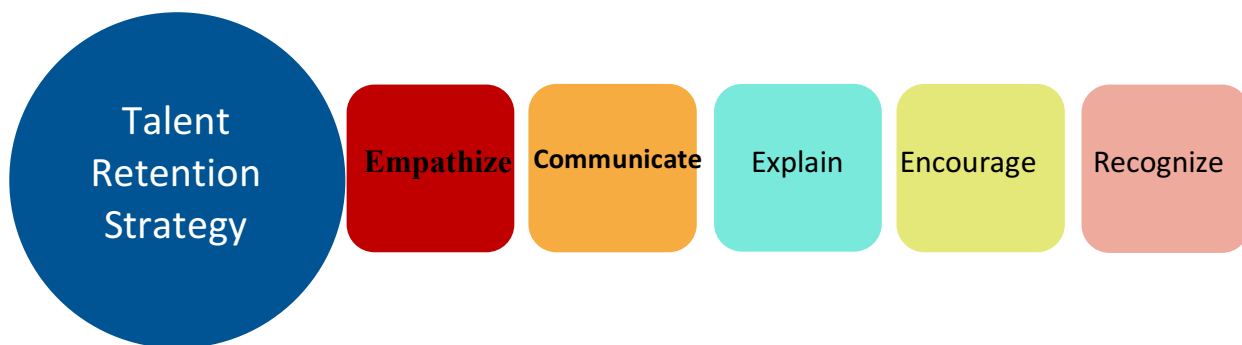
When all the projects in both the coalfields were declared as critically polluted & also imposition of moratorium in Jan-2010, me along with all project officers (Envt.) worked as group and complied no. of office memorandums issued by the MoEFF &CC.

I would like to quote "The speed of the boss is the speed of the team"-Lee Lacocca.



Talent retention- Human intellectual capital:

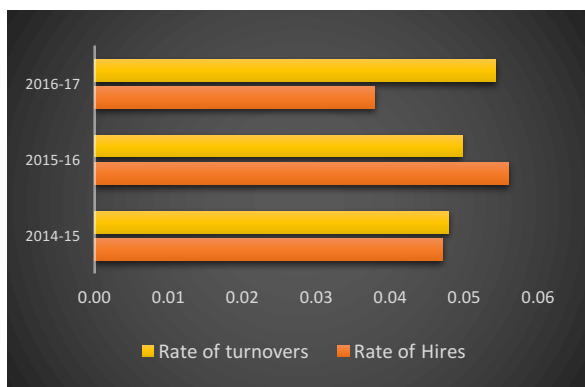
We at MCL, maintain human capital effectively and efficiently to face the dynamic challenges on the front of knowledge, technology and changing trends in global scenario by Empathizing, Communicating, Explaining, Encouraging and Recognising.



We at MCL, deal with our employee's negative emotions with empathy and provide frequent, truthful and direct communications for solicit ideas and opinions. We also explain our employees the organisational and individual goals while encouraging and recognizing their initiative for achieving organisational excellence and sustainability.

Manpower strength of MCL, FY 2016-17 is 22036 comprising 1828 Executives and 20208 Non-executives. By way of fresh recruitment, transfer, reinstatement etc., 832 persons joined MCL and 1193 were separated by way of retirement, transfer, resignations, death etc. We regret to inform that our manpower strength with respect to previous reporting year (22397 no's.) was reduced. We at MCL, maintain harmonious relation by three tier IR system mechanism i.e. at Unit level, Area level and Company level for achieving higher growth. Depending upon the issue and delegation power, the grievances/demands of employees were resolved at different levels of IR system. There was only one strike during the reporting year by Four Central Trade Unions of Coal India on various issues on 2nd Sep,2016.

Talent Acquisition and Attrition Profile Trend



The reason behind difference in manpower between the present and previous reporting year is on account of providing employment to the PAPs as per the R&R policies in vogue & recruitment through campus selection by CIL. The remote location of our sites, and also the young mass who are inclined towards IT and the availability of opportunities in the metropolitans are some of the other reasons.

Employee benefits:

Benefits contribute to attract, retain and to motivate the employees. The variety of possible benefits helps employers tailor their compensation to the kinds of need. We provide benefits as per the Employee Compensation Act (1920), for both permanent and contractual Employees.

Some standard benefits exclusively for permanent employees are Leave travel allowance, Group Personal Accident Insurance Scheme, Settlement Allowance, Retired Executive Medical Benefit Scheme, Compensation for the dependents who passed away in the mines. We never say goodbye to our employees even after they retire from their services, there are a range of contribution plans (Provident Fund and Pension Fund) that continue to support these employees financially.

Equal opportunities:

We at MCL, maintain equality among all the employees by not discriminating on the basis of race, religion, age, gender, basic salary or for any characteristic or class protected by law. We adopt the National Coal Wage Agreement (NCWA) for non-executive employees and specified pay scales for executive employees to promote equal opportunities as per the national standards. The ratio of basic salary for men to women is 1:1

- We even care for the career development and growth opportunities of women and men equally. Women at MCL, have access to the form WIPS (Women in Public Sector) which is good platform for them, to be involved in when it come to various developmental activities for the society.
- Special benefits for Women Employee:
 - Six months maternity leave during childbirth.
 - Two years of child care leave for women with minor children.

STANDARD BENEFITS FOR EMPLOYEES AT MCL

For permanent Employees:

- Life insurance
- Health care
- Disability/Invalidity coverage
- Parental Leave
- Retirement provision
- Stock ownership

For contractual Employees:

- Life insurance
- Healthcare
- Disability/Invalidity coverage

Female workforce statistics

During FY 2016-17, the permanent and contractual female workforce increased about 3.08% and 50% by previous reporting year.

Permanent Employees: Gender wise

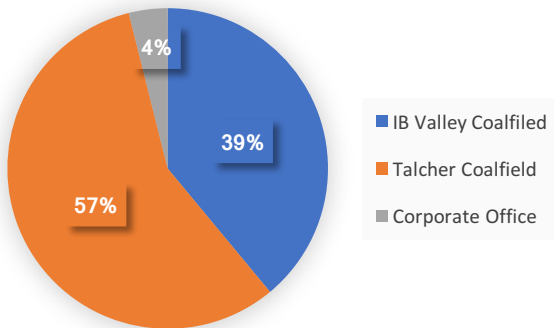


Contractual Employees: Gender wise



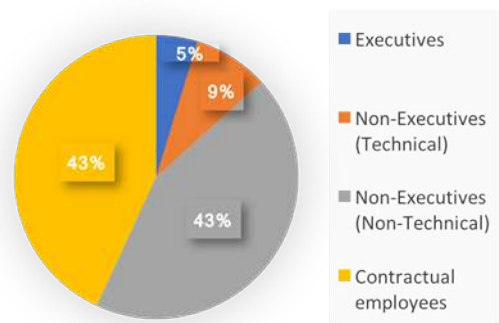
We have recorded a 100% return to work rate and retention rate post availing maternity leave. We protect the interests of women and have an Anti-Sexual Harassment of women policy in line with the sexual Harassment of women at workplace (Prevention, Prohibition & Redressal) Act, 2013, that covers very employee (permanent contractual temporary and trainees).

Permanent Employees: Region-Wise

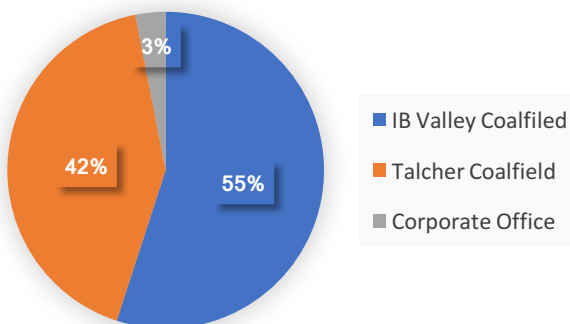


Employee Diversity

Category Wise



Contractual Employees: Region-wise

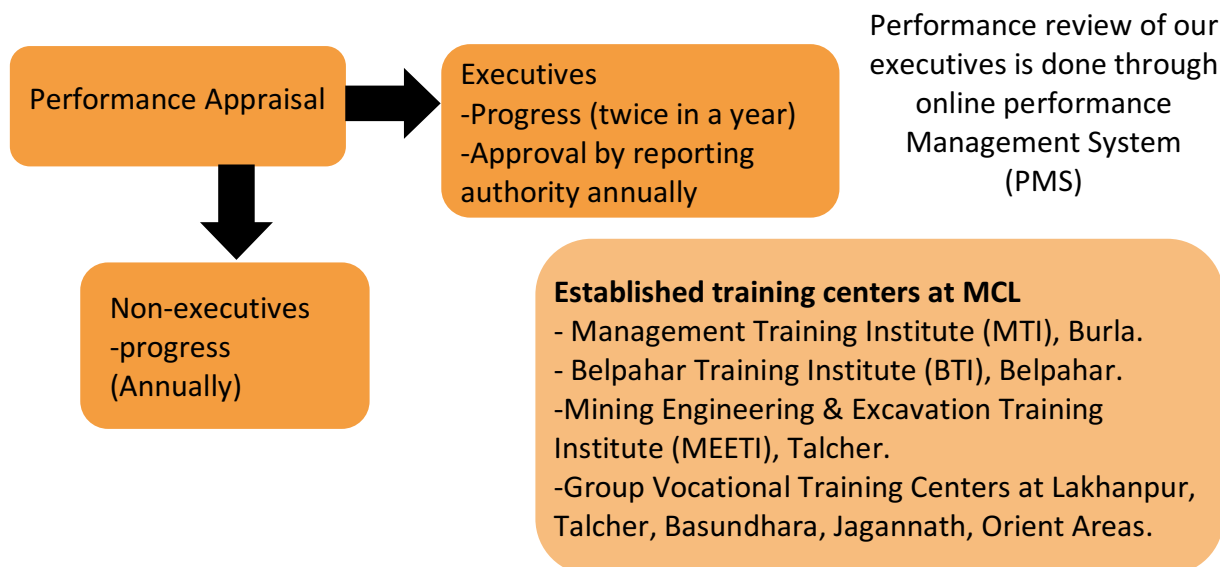


Training and Performance Management:

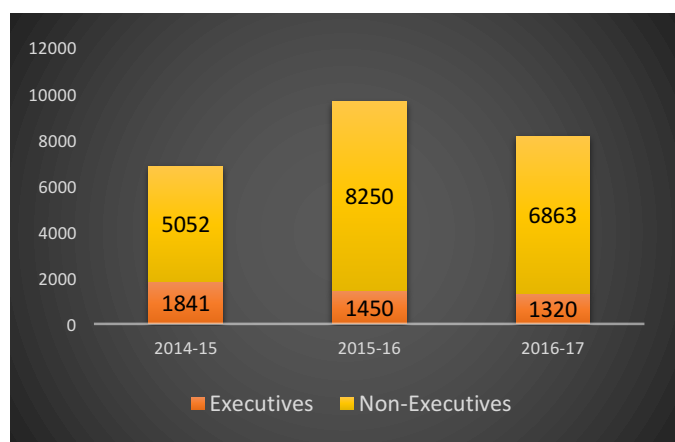
We invest in our employee training to support succession planning, increase employee value, reduce attrition rates, enhance operational efficiency and exceed industry standards. We nurture the newly recruited young generation with trainings in various areas relevant for the coal industry before they perform in their responsible positions at various external organizations like IICM, IIMs, IITs, NITs and other renewed trainings in India and Abroad.

Experience due to exposure is more effective.

Extending our handholding support to the executives for them to encourage as competent managers, we conduct regular reviews of their performance. As appraisal offers a valuable opportunity to focus on work activities and goals, to identify and correct existing problems, and to encourage better future performance we give performance reviews for all the permanent employees, except apprentices (as deployed under the Apprentices Act).



Employee Training Trend



We regret to inform that the employee training trend is declined in comparison with previous year. The reason might be the more rate of turnovers this reporting year. Which was discussed under the figure Talent Acquisition and Attrition Profile Trend.

To be noted the values of Employee training trend were erroneous in the previous two reporting years. And we rectified them in this FY 2016-17.

Talent Development Initiatives-Balance in Employees Life Cycle:

Simply acquiring talent is not enough, and we understand this at MCL. We take up different initiatives throughout the employee's "life cycle" – Selection, Development, Succession and Performance Management to nurture the talent so as to fuel the growth OF the company as well as the individual. We focused on three HR initiatives to this effect, namely Mentor-Mentee Scheme, Training Scheme for Trainees ,Mining Sirdar and Imparting Training under Apprentices, Act,1961.

Mentor-Mentee Scheme:

In accordance with the CILs scheme of Mentor-Mentee, to ensure high retention rate of new entrants and to develop a pool of trained & committee mentors, a key priority organizational area which will help in building sociological contact with them, MCL has appointed 30 numbers of mentors from different discipline for 169 number of mentees (Assistant Manager E-3 grade) for ensuring their professional growth and development along with high potential employees for assuming senior leadership roles.

Mining Sirdar Training:

This unique scheme targeted at providing an opportunity to PAPs and people belonging to the SC/ST category for enhancing their skills ensuring their employability. We target to train 30PAPs or SC/ST candidates to be eligible for Mining Sirdar Trainee. For FY 2016-17, 18 candidates (i.e. 13 SC & 5 ST) has been selected for this training with the necessary approval of fund from CSR and training sessions were held in BTI, Lakhanpur.

Imparting Training under Apprentices, Act,1961: (Amended 2016)

The schemes like Post Graduate Practical Training (PGPT); Post Diploma Practical Training (PDPT) and apprentices training for one year provide exposure to practical and technical skill training. Four PGPTs have been deployed in TCF and IB coalfields. During FY 2016-17,200 no's of PDPTs have been engaged in Talcher and Orient areas for a period of 1 year. And 182 number of ITI pass out of Odisha State have been engaged as apprentice trainees in Jagannath, Bharatpur, CWS(X) and Talcher areas. We at MCL, also provide HEMM training for land oustees to be posted in mines, Safety Management training, Computer awareness programme etc.,



HR Vision 2020:

- A Central Task Force with 3 dynamic Assistant Managers from Personnel, Finance &MM constituted to take forward the GENXT concept.
- Discipline Task force of 17 members is in Vogue

Employee Health and Safety net- Zero Accidents, Derive Loyalty and Quality:

We at MCL, prevent inter-office violence and raise employee awareness of the potential dangers they face by health and safety practices at headquarters and area level (15 OC mines and 6 UG mines). Violent acts and behaviors of employees and other individuals within the workplace a cause for concern because they threaten a company's overall well-being. Hence, we aspire to take an active approach in educating workers on the importance of practicing safe habits in order to create kind of productive, efficient, happy and inspiring workplace. We have integrated Management System (IMS) accredited with OHSAS 18001:2007- Occupational Health and Safety Management, ISO9001:2008-Quality Management System, and ISO 14001:2004-Environment Management System.

Zero Accidents:

We ensure that no worker is injured on the job, as it costs the company in lost work hours, loss in productivity, increased insurance rates, workers compensation premiums and possible litigation. We adhere to maintain safety aspect at the very heart of our operations to care their well-being quite tangibly with reduced injuries. We conduct safety awareness drives and trainings to employees. During 2016-17, 7305 workmen & supervisors were provided training at Group Vocational Training Centers against 8576 in previous reporting year. To improve the skill of dumper operations, 32 dumper operators were imparted stimulator training at Northern Coalfields Limited against 30 in previous year. Annual Safety Fortnight for this reporting year was observed between 10/01/2017 to 23/01/2017.



Safety pledge by employees during safety fortnight.



Miners day celebration at HQ



Safety sign board at Orient Area

Safe employees are loyal:

We engender trust to all our employees by budgeting for safety improvements and making it part of our operational plan. We care for employee opinion in making safety decisions-through reporting, committees, walk throughs and meetings. All the employees are provided with safety gadgets such as helmets; safety foot wears etc., During FY 2016-17, 9557 pairs of mining shoes, 971 pairs gumboots & 6931 nos. of helmets were allocated. We even provide ear muffs and ear plugs to workers in high noise generating sites.

For newly recruited employees we conduct Initial Medical Examination(IME) and Periodic Medical Examination(PME) of supervisors are conducted for detecting defects and diseases so that they can be treated in time. By implementing these our employees respond by working harder, showing more pride in their jobs and remain loyal.

Health care services:

- Dispensaries (14), Area Hospitals (5), Central Hospital (5)
- Ambulances including Traumacare ambulances and Mobile Medical Vans.
- Total there are 104 Doctors and specialists and 241 Paramedics.



Safety sign Board at Bhubaneswari OCP

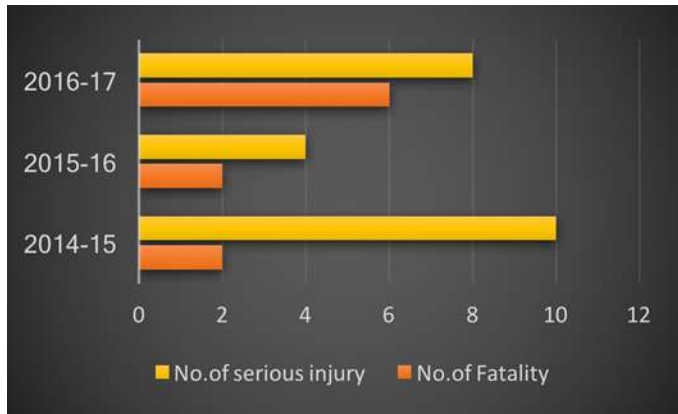
Quality:

Safety is the priority at MCL, which first turn outs high quality of product. We have safe working place for employees, which tends to be more efficient one, free of debris and tangle of cords. We use safe technologies like HEMMs with adequate noise level and vibration reduction technologies, blast free technologies: surface miners and ripper dozer, introduction of SDLs & LDHs for replacing manual loading of coal, installation of environmental tele-monitoring system in underground mines, Procurement of real time slope monitoring radars and 3D Laser Scanner for survey work in process, man riding system operating at Nandira UG mine. This footprint leads our employees with reduced distractions and truly focus on the quality of what they do.

Safety Statistics:

Despite all measures, we regret to inform that six fatalities and eight serious injuries were faced this reporting year against two fatalities and four serious injuries previous year. Special safety meeting with Area safety officers and GVTOs to strengthen safety trainings of both departmental and contractual workers have also been conducted.

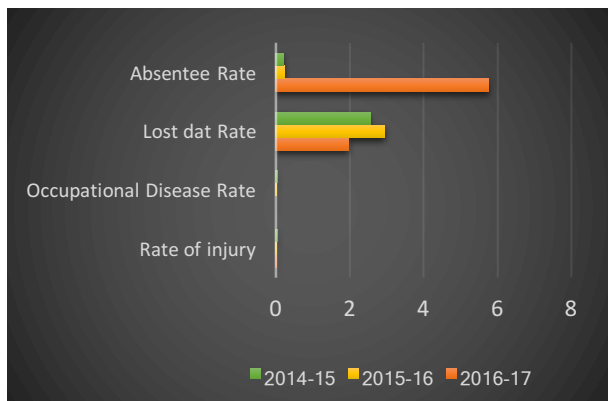
Trend of Accidents



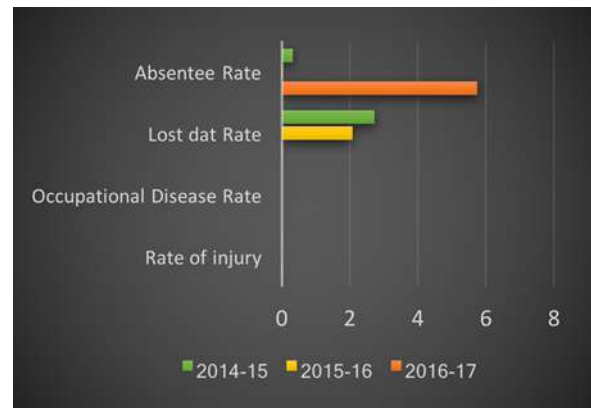
We witnessed fatalities at Bhartapur OCP, Samleswari OCP, Kaniha OCP and Nandira colliery. And serious injuries at Orient Colliery mine no. 1 & 2, Lingaraj OCP, Belpahar, Anata OCP, Balram OCP, Orient Mine no.4.

During investigation it was revealed that some injuries were due to negligence. We have taken necessary disciplinary actions on those who were found guilty.

Apart from these fatalities, our initiatives have had a notable positive influence in eliminating occupational disease rates and Lost day rates of permanent employees and independent contractors.



Safety Trends –permanent employees



Safety Trends –Independent Contractors

At MCL, we have active rescue services team comprising of well-equipped Mines Rescue Station at Orient Area, IB valley coalfield and RRRT. During 2016-17 our rescue teams managed to control 23 number of emergencies not related to any mining activity but arising in nearby society/ township. Our 12 staff members and 177 rescue trained persons were imparted initial and refresher training in Rescue and Recovery operation at MRS, Orient Area and RRRT, Talcher Area. We even provided training and emergency support to private U/G mines Gare palama IV/4 (M/s Hindalco Industries Limited) Raigarh Region, M/s ACB India Limited, Coal washery of kanika Siding.

Employee welfare and wellness:

Welfare facilities enable the employees to live a richer and more satisfactory life. As we discussed earlier in HR management part, as our locations are remote it may hamper the anxiety and zeal of the employees to work. Keeping this into account we provide all necessary facilities to them in the vicinity of our operations. We have established townships to reside along with schools, shopping complexes, hospitals, a playground for children, banks, ATMs, temples, Gyms, community centers, mess and so on. We even provide guest houses for newly recruited employees with all necessary facilities like TV, Fridge, coolers etc. Our townships have badminton courts, tennis courts and golf courses for our employees to use, which promotes the spirit of sportsmanship and team work as well.

Regular recreational activities are being conducted at HQ and Area level to create a stress free working environment for our employees. We conduct various inter area tournaments for all our executive and non-executive employees. Our employees also participate in various parent company tournaments being organized at different subsidiaries. During the year 2016-17, we organized Coal India Intercompany Chess tournament & Coal India Intercompany Table Tennis. A run for excellence was organized on the occasion of Coal India Foundation day & MCL Foundation day for veterans, Gents, Ladies and Children at MCL HQ. On account of Utkal Diwas Golf tournament, Cultural programme and other socio cultural activities were organized from 1st April to 3rd April, 2016. We encourage all our participants and winners by awarding with prizes.



Shri. A.K.Jha, during Golf tournament.

Cultural program during our Foundation day celebrations.



We believe that Education develops in us a perspective of looking at life with confidence. At our premises, we have 9 functioning DAV Public Schools. During FY 2016-17, We extended our financial hands with Rs.1,42,800/- for better educational facilities to the 17 no's of privately managed schools running in and around our operations including NK Mahavidyalaya, Talcher. We also sanctioned Rs.2758.36 Lakhs for DAV Public schools in our premises.

During 2016-17, as per CIL Scholarship scheme a value of Rs.19,30,860 was provided to 1112 no's of meritorious students in our employee wards. We also provided financial assistance of Rs.34,39,770 was provided to 188 no's of employee wards in forms of tuition fees and hostel rent for technical and Medical education.

Resolving employee and stakeholder issues:

Our workplace is fuelled with so many concurrent agendas that we never know which one may be affected when we resolve conflict solely to benefit and advance our own. We seize the correct opportunity to deal with the conflict before healthy tension turns in to overly disruptive chaos. We conduct joint meetings with union representatives and employees by thoroughly understanding the issue and providing solutions which result in healthy competition, process improvements & innovations. For the grievances of employees belonging to scheduled caste Scheduled Tribe Employees Association (CISTEA) held in a particular area or HQ. There will always be change in the needs and issues of our employees, so we regularly monitor our grievance redressal system. MCL also has a grievance redressal cell to redress the grievance of employees and other stakeholders of the company which also includes farmers. This cell consists of six-member team chaired by TS to CMD, TS to D(P) as Secretary, TS to D(T/P&P) as member TS to D(T/Op) as member, Dy GM(Vig) as member and PRO as Nodal Officer. There is a "Samadhan Cell" at CIL's Corporate Office in Kolkata. Stakeholders and employees can lodge their grievances at the Samadhan Cell. The grievances lodged will be acknowledged and redressed within 30 days.

Participatory management:

We motivate Employees to participate in the decisions of the company which makes them feel like they are a part of a team with a common goal, and find their sense of self-esteem and creative fulfilment heightened. Our four recognized trade unions at MCL, have always strive to strengthen the good vibes within the industry. These trade unions are covered under the collective bargaining agreement and also take part in management areas like safety, welfare and committees required under Mines Act and rules, through their representatives. During FY 2016-17, 20208 employees (91.7%), were covered under this collective bargaining agreement.

We equally involve all our employees in decision making for future initiatives to process the work in less time. We have not as yet made efforts to assess our operations and suppliers, to ensure that the collective bargaining right of our workers are not violated. This remains on our agenda.

Infrastructure maintenance:

Right infrastructure is one of the basic resources we provide to our employees around operational area. As our company was established in 1992, there is a need to renovate our existing quarters. In view of this, we planned for a phase wise repair to be accomplished by 2018-19. Till 31st March 2017, 6500 Quarters were repaired with an expenditure of Rs.44.03 crore. And we intend to progress with repairs of 9408 quarters in the coming PHASE and followed by 3855 quarters in the third Phase. The repairs include all necessary elements for safe and clean environment like STPs, road maintenance, walls, floors and rooftops etc.,

Corporate Social Responsibility- Commitment for a better future:

Due to our mining activities, there is a profound impact on the environment and people living around the mine areas. It is our responsibility to work towards the betterment of the society and make a better place to live in. We believe in “dedicating a life of goodness and generosity towards our fellow humans, filling our heart with contentment and joy”. We never forget the people who sacrificed their mother land for our mining purposes. We build CSR into our company culture by making policies and proper strategic procedures for implementation of welfare projects for the communities for addressing their issues. A gamut of welfare activities are undertaken as per Schedule VII of companies act.

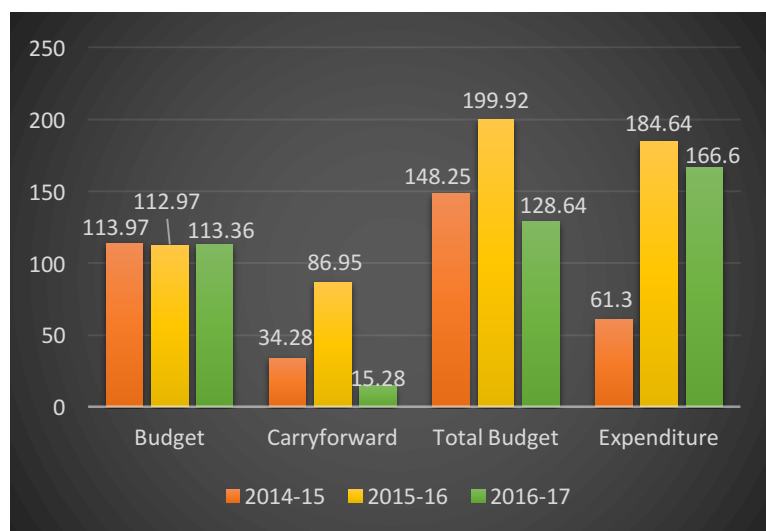
Calculation of CSR budget for 2016-17

Year	Profit before tax (Crore.)
2013-14	5429.08
2014-15	5314.24
2015-16	6260.43
Total	17003.75
Average net profit before Tax of last three financial years	5667.92
2% of Average Profits	113.36

Fund for CSR is allocated based on 2% of the average net profit of MCL for the three-immediate preceding financial years.

As per our CSR policy:

- 80% of the CSR budgeted amount should be spent within the radius of 25km of MCL command areas including the four districts of Angul, Sundargarh, Jharsuguda & Sambalpur.
- 20% of the budget is spent in rest of Odisha.



CSR investments:

During FY 2016-17, the CSR budget allocated by MCL was INR 113.36 crores. The expenditure was INR 166.6 crore and the major activities are in progress. The graph depicts the CSR expenditure for last three years.

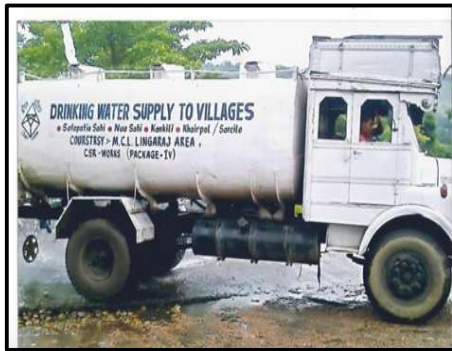
The completed and ongoing projects in four districts are listed in table from Pg-66 to 67.



Renovation of Soubhagya Sagar at Talcher



Sapling distribution to the Bidyadharpur villagers under Lingaraj Area



Water supply during summer through Mobile water tanker -Talcher Coalfields- 180 Villages every year.



Strengthening of Balinga Tapadia Road (21Km) in Sundergarh district



Girls Hostel (150 Bedded) at VSSUT Burla, Sambalpur

ONGOING PROJECTS

ANGUL	<ul style="list-style-type: none"> • Construction of 138 nos. Additional Class room buildings in different School taken up through State Authority in Angul District- Rs. 564.42 Lakh • Construction of 134 nos. of Anganwadi Centres taken up through State Authority in Angul District-Rs. 833.48 Lakh • Financial Assistance for construction 100 seated ST Girls Hostel, Angul- Rs. 82.5 Lakh. • Water supply scheme for 35 nos. villages of Talcher Coal fields, Angul - Rs.56.89 Cr. • Deposit for the construction of 7 nos. PWS works at Talcher Block – Rs 2.10 Cr. • Construction of Fly over (Over rail line) at Ghatapada (Talcher) amounting Rs. 37Cr
JHARSUGUDA	<ul style="list-style-type: none"> • Construction of Community Centre at Jharsuguda Town – Rs.7.20 Cr. • Water supply scheme for Brajrajnagar town, Jharsuguda District – Rs.8.88 Cr. • Setting up of a 100 bedded Cardiac Institute at Jharsuguda-Rs.75.00 Crore. • Rural Electrification works by up-gradation & additional of Transformers including aided works in 44 peripheral villages of Lakhanpur & Jharsuguda Block of Jharsuguda District.-1st Installment- Rs. 1.48 Cr. • Stadium at Jharsuguda along with construction of boundary wall and 4 no's sentry post – Rs. 14.76 Cr. • RDC approved work at Lakhanpur Block in Jharsuguda District with value of Rs.11.98 Crore. • Sports, electricity, communication, drinking water, education, digging of ponds, building for community utility & Plantation etc. at Kolabira, Laikerea, Kirmira & Jharsuguda block of Jharsuguda District- Rs. 20 Cr. And additional Rs.6.72Cr for ongoing development works of 4 blocks.
SUNDARGARH	<ul style="list-style-type: none"> • Three Nos. Pipe Water Supply Scheme for Hemgiri, Barpali and Kuisira Village of Hemgir block in Sundargarh District –Rs.1.52 Crore. • Development Works at Sundargarh with value of Rs.8.50 Crore. • RDC approved work in Sundargarh District –Rs.16.29 Crore.

ONGOING PROJECTS

SAMBALPUR	<ul style="list-style-type: none"> • Ropeway Project at Hirakud Dam, Sambalpur – Rs.5.00 Cr. • Water Supply Scheme at Burla, Sambalpur – Rs.8.62 Cr. • Construction of Sports Complex at Burla, Sambalpur – Rs.25.00 Cr • Financial assistance to VSS Medical College, Burla for a CT Scan Machine – Rs. 4.00 Cr. • Sanskrit Kalakendra at Sambalpur with value of Rs.3.37 Crore • RDC approved work in Sambalpur District with value of Rs.276.4 Lakh excluding kalakendra.
OTHER DISTRICTS	<ul style="list-style-type: none"> • Construction of Millennium City Gate at Cuttack – Rs 70.34 Lakh. • Construction of Multipurpose Indoor stadium at Jajpur – Rs 10.22 Cr. • Provision of CSR funds for renovation of toy train and railway track for operation of the toy train in Nandankanan Zoological Park, Bhubaneswar-Rs.3.05 Cr.

SOME MAJOR COMPLETED PROJECTS

- Ujjaipur bye pass road at Sundargarh district with value of Rs. 17 Cr.
- Balinga- Taparia road at Sundargarh district with value of Rs.28 Cr.
- Rural water supply for 19 Villages at Talcher district with a value of Rs. 22 Cr.
- Empowering rural women by re-energizing SHG through solar energy program – in partnership with KIIT at Nuapada with value of Rs. 24 Lac
- Soubhagya sagar water reservoir, Angul with a value of Rs. 3.5 Cr.
- Construction of Cement Concrete road in ward no 3 and Ward no 16, Angul - Rs 3.10 Cr.
- Development of Village road Badasingha Bahal to Gobra High School, Angul - Rs 1.12 Cr.
- Resurfacing of Bituminous Road and Const of Concrete road in Danara village, Angul – Rs 1.88 Cr.
- Supply of water in different blocks of Jharsuguda - Rs 1.83 Cr.
- Construction of Kalyan Mandap at Jharsuguda Town in Jharsuguda District – Rs 0.98 Cr.
- Construction of Nursing school and Hostel at Ib Valley – Rs. 2.78 Cr.
- Construction of new 100 bedded ward at District Hospital, Angul- Rs.2.85 Cr and additional fund of Rs 145 lakhs with ICU.
- Cremation Ground /Rajghat at Sambalpur- Rs. 1.0 Cr
- Lighting arrangement along sea beach of Puri and Grand puri- Rs. 5.5 Cr.

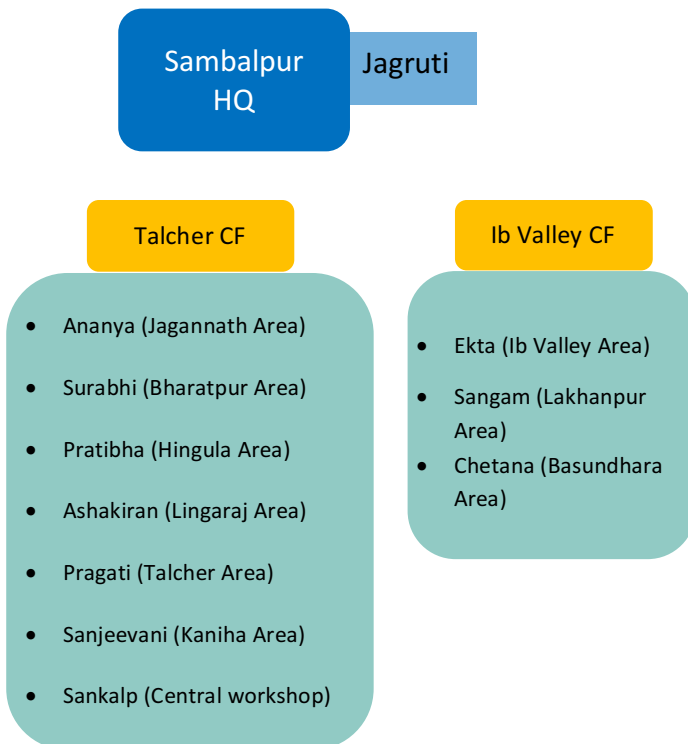


Construction of Medical college at Talcher in progress



10,524no's of School toilets have been constructed

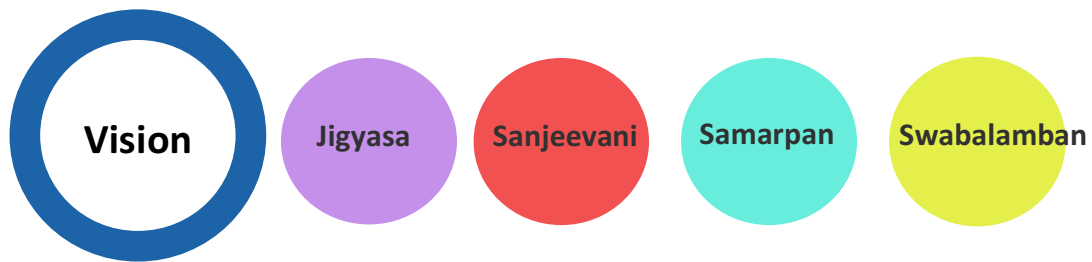
Mahila Mandal- The Female Social work groups of MCL”



In India, the concept of Mahila Mandal came to existence in 1955 at the time when first five-year plan was about to over, with the stress on Women education health services for the mother and child, supplementary feeding for the children and women's economic development. We at MCL, also believe in “Train a man and you train an individual, train a woman and you build a nation”.

These Voluntary groups formed by the wives of senior MCL executives at Head quarter and area levels are piloting many of our CSR activities. These groups work for upliftment of women and children in the rural areas. Currently there are 12 groups across various areas (depicted in the figure), that perform as social work groups, each headed by the wife of the most senior executive in the area.

The Mahila Mandals have four target areas of intervention towards social upliftment of marginalized and deprived section of the society : Jigyasa (Education), Sanjeevani (Health), Samarpan (Charity), Swabalamban (Social Empowerment).



Our Mahila Mandal, with their magic of emotional touch carry out their activities in and around the areas in which they operate. In order to protect trees, they celebrated Van Mahotsava on 26th July 2016 along with the environment department. They have planted trees along with children of DAV public school in the premises of Anand vihar. All the 11 Mahila Mandals has undertaken various Projects e.g., skill development like computer literacy, driving and stitching, Atta Chaki programme, taking care of girl’s health by providing medicines, donating the essential clothes and sweaters to old age groups in Ashrams, organising camps at three to four months camping for the development of children, providing all essential food products to leprosy people etc.,

Mahila Mandal at head quarter and area level has celebrated International Women’s Day on 8th March,2017. The theme on this day at Headquarter was “Be bold for change”. The guest of honour was Mrs. Rajeswari Panigrahi (MLA), Dump operator (CWS, Talcher). President Ranjitha tripathy in her speech said that “Educate a woman and you educate a family and in turn their community will prosper”. She also added that education builds confidence and help us to take the decisions on our own. Different competitions were held on 6th and 7th March, 2018 like drawing, rangoli, songs and poems, speeches etc.,

An awareness program was held regarding bank activities on 27.01.2018 for all the maid workers at Jagruti vihar. Bank accounts of 100 maids were opened with the help of UCO bank. On this occasion, shawls were distributed to all the maids.



Health check up for kids-Nounihal



On Republic day 2017, Ladli candidates participated in the parade and they were appreciated and prizes were distributed. They also encourage and help women to learn driving. Mahila Mandal has helped 15 members to get driving license.



Providing necessary essentials for kids and aged people at Phooljhran Ahsramam



The Breast cancer awareness program was held on 22nd October 2016 by Women in public sector (WIPS) and Jagriti Mahila Mandal at MCL. Women from Anand vihar colony and Jagriti vihar colony of MCL, HQ marched to kirab village in Burla with pink colour ribbon by delivering messages regarding breast cancer.



During distribution of blankets to school kids



WIPS representative's area meet at MCL,HQ

Land Acquisition:

Land is the primary input for all coal mining projects and its acquisition is a major hurdle. Land is acquired for coal projects as per the project requirements and the acquired land is being utilized in accordance with the mining plan in phases as per progress of mining operation. For starting a new project, expansion of existing mines, setting up of washeries or diversification to power plants, land is the very first requirement. We at MCL, land is acquired under the Acts/Modes

- a. Coal Bearing Areas (Acquisition and Development) Act, 1957 (CBA (A&D) Act)
- b. Land acquisition Act 1894 (LA Act) and,
- c. In extreme urgency, through negotiation with the Land owners - Direct purchase.
- d. Forest land is obtained by invoking the provision of the Forest (Conservation) Act, 1980.

Besides acquiring, we secure land by obtaining all the relevant clearances like EC, FC etc. In spite of taking all the essential measures to start a project on time, sometimes it is inevitable as we need to rely on external factors that are beyond our control. Our dynamic workforce is continuously engaged in resolving the pertinent issues of land acquisition since the past few years. We understand that these issues cannot be tackled in one go. But we are confident that with our experience and persistence we will continue to resolve them and simultaneously build a strong foundation for our growth journey in a strong sustainable sense.

We acquire land possessed under three different categories, namely tenancy land, Government non-forest land and forest land.

During FY 2016-17, we acquired 1611.257 hectares of land and obtain possession of 147.637 hectares of land to execute various projects.

Rehabilitation and Resettlement

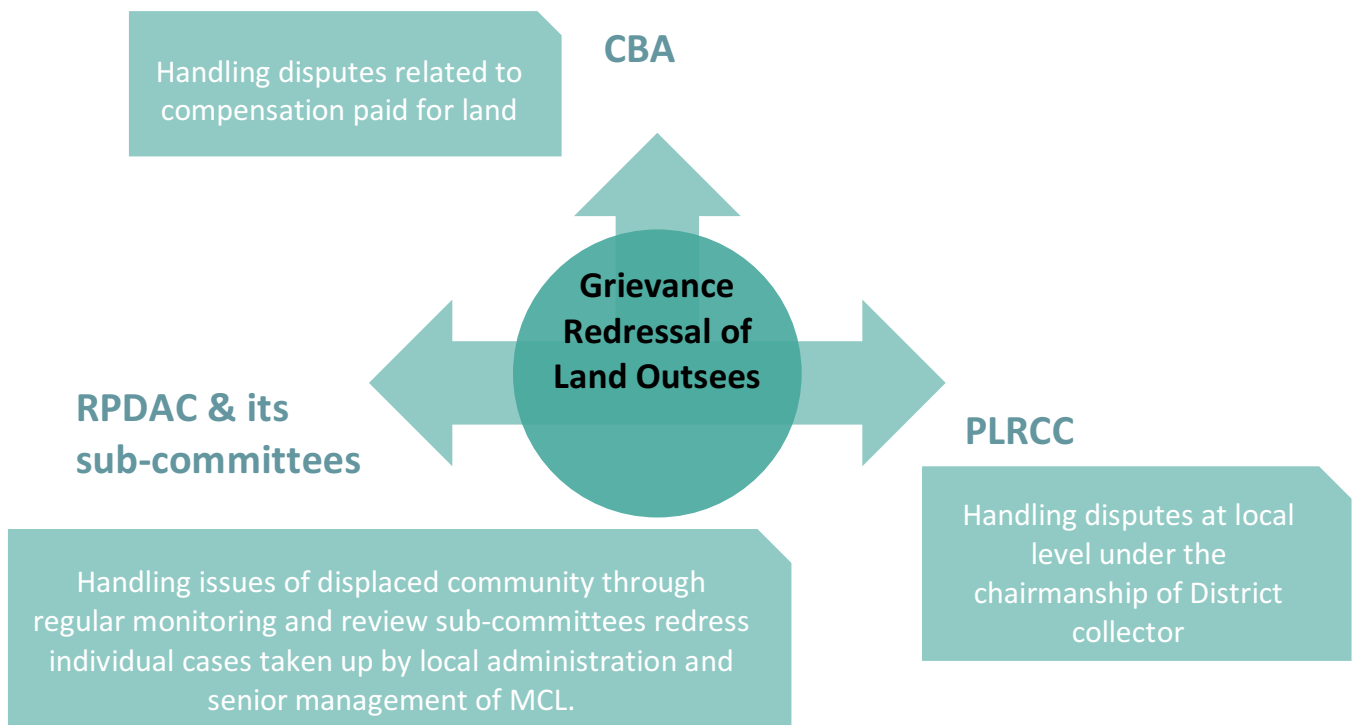
We after acquiring the coal bearing land, relocate the people living on those home lands to other areas. This is easier said than done, as the impact of relocation goes beyond loss of inherited land. These issues can include loss of physical income earning assets such as homes, productive land, and jobs, and non-physical assets like community support, cultural sites, and social systems. Food insecurity, poor access to healthcare and education, and social disruption are the major concerns of the communities to be displaced. In our experience, all these issues make it very challenging to convince people to give away their land and relocate to new living spaces. It isn't a pleasant pursuit, but we are compelled to persevere in order to ensure energy security for our country and the long-term sustainance of our business. In doing so, we encounter myriad unforeseen circumstances that we persistently try to tackle. The concerns of the local Coal-bearing lands are often located in remote areas of Odisha. In fact, our Kulda OCP and Basundhara (West) OCP projects are located on the premises of indigenous communities. When we acquire these lands, we need to provide appropriate compensation to the landholders. Very often the economic status of the villagers may suddenly escalate because of this compensation. This does not always soothe the anguish

many of them feel at losing their land. This is why we focus strongly on providing these villagers with the best resettlement and rehabilitation facilities. We have adopted the Rehabilitation & Resettlement Policy (R&R) of the Government of Odisha, for remuneration of those who lose their land and for the Project Affected Families. We have also attempted to modify certain compensation packages to further benefit these PAFs. Indigenous communities are also compensated as per our R&R policy. The consent of these communities is sought through a public hearing before we acquire the land. Whenever we acquire forest land, a 'Palli Sabha' is conducted, in order to get the consensus of the communities.

There have been no significant incidents of violations involving the rights of indigenous people, by MCL, during the reporting period. MCL acts on the advice of CBA Part Time Tribunal (under the CBA [A&D] Act, 1957), or the Civil Court (under LA Act, 1894), Rehabilitation & Peripheral Development Advisory Committees (RPDAC) and PLRRC (Project Level Rehabilitation and Resettlement Committee) for addressing grievances of land oustees.



R& R site at Chhattanpalli, Basundhara Area





One to one discussion with Senior officers regarding LAAR perspectives of MCL with ASC, Hyderabad.



Colony at Baghmara R&R site



Water supply at Boulpur R&R site



School playground at Boulpur R&R site

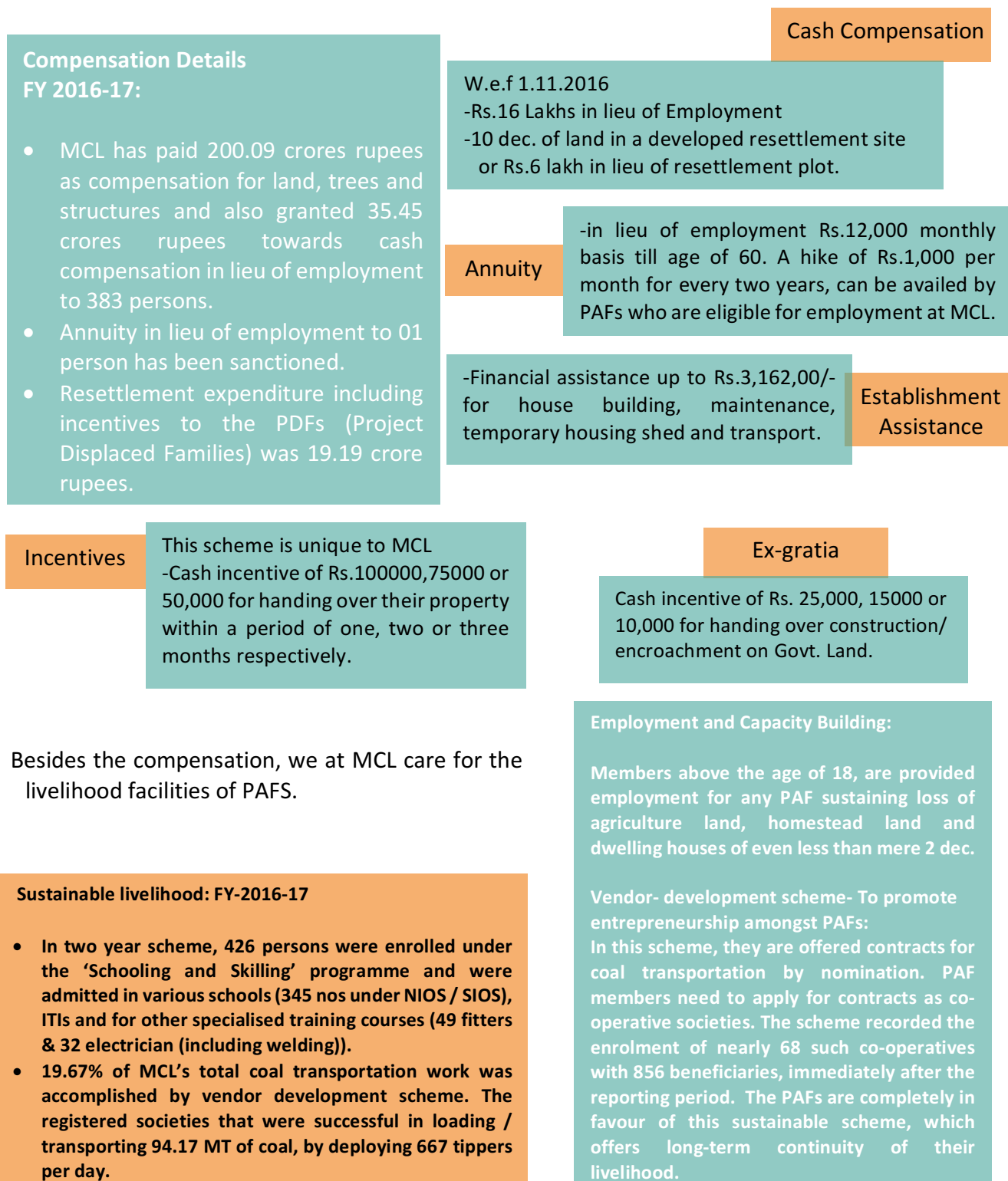
Resettlement Trends:

During FY, we resettled a total of 559 PAFs upto 31.03.2017 and these families either chose relocation to R&R sites, or to sites of their own choice

Some of the prominent R&R sites where our PDFs have been re-settled include, Handidhua, Ghantapada, Kuio Jungle, Danara, Gurujang, Boulpur, Baghmara, Balanda and Patharmunda in Talcher Coalfield, and Tikilipara, Barpali, Ganesh Nagar, Jagannath Nagar, Khadam, Belpahar, and Sanjob, Chhattanpalli, Sarangijharia, Badkhalia in Ib Valley Coalfield. These sites are provided with or being developed with all basic amenities including drinking water, electricity, roads, shopping complexes, schools, etc. When 20 or more displaced families choose to settle together in a place that is not an R&R site, we provide them with infrastructure and amenities such as electricity, water, roads, drainage facilities, and a boundary wall.

Our Comprehensive R&R Scheme:

Our unique R&R scheme is based on an all-inclusive model that offers attractive compensation packages along with a range of livelihood options, for PAFs (Project affected families). These PAFs are free to select the most appropriate offer that best suits their needs.



Besides the compensation, we at MCL care for the livelihood facilities of PAFs.

Annexures

KEY PERFORMANCE INDICATORS

Production Performance data

Production Performance				
Productive parameters	Mining Method	2016-17	2015-16	2014-15
Coal Production (M.Te)	Opencast	138.193	136.789	120.1
	Underground	1.014632	1.112	1.28
	Overall	139.20763	137.901	121.38
Output per Man shift (Tonne/Man shift)	Opencast	27.72	24.24	22.16
	Underground	0.65	0.67	0.84
	Overall	20.08	18.88	17.1
Overburden Removal (M.Cum)	Overall	123.34	98.41	89.22

Economic Performance Data

Economic Performance			
	2016-17	2015-16	2014-15
Economic value generated (A)	INR (Crores)		
Revenue (through core business segments)	24293.38	19829.58	14989.05
Other income (through other sources)	1486.31	2116.55	2079.80
Other comprehensive income	(1.40)		
Total (A)	25778.29	21946.13	17068.85
Economic value distributed (B)	INR (Crores)		
Operating costs	6061.71	6280.59	5669.54
Personnel expenses (wages+benefits)	2372.25	2077.96	1997.10
Interest charges	7.95	1.59	1.44
Taxes and royalties (includes direct taxes such as income tax, corporate dividend tax, etc.)	13606.06	9890.51	6434.69
Dividends (payments to capital providers)	2982.00	3608.45	3841.82
Community development/CSR investments	166.60	184.64	61.3
Total (B)	25196.57	22043.74	18005.89
Economic value added (A-B)	581.72	-97.61	-937.04

Employee Benefit Expenses			
Particulars	2016-17	2015-16	2014-15
	INR (crores)		
Salaries, wages, allowances, bonus and benefits	1544.75	1497.23	1410.53
NCWA-X Provision	146.01		
Executive pay revision provision	9.78		
Ex-gratia	112.38	111.11	90.63
PRP	21.09	30.47	38.93
Contribution to PF and other funds	204.91	195.69	186.3
Gratuity	57.38	26.19	48.03
Leave encashment	106.01	59.93	71.56
VRS	0.00	0.27	0.01
Workmen compensation	0.76	0.03	0.55
Medical expenses for existing employees	43.69	39.45	38.79
Medical expenses for retired employees	5.29	6.8	1.26
Grants to schools and institutions	26.04	27.77	21.85
Sports and recreation	7.95	3.84	5.48
Canteen and crèche	1.03	1.06	0.91
Power – township	57.23	57.53	60.19
Hire charges of bus, ambulance, etc.	3.92	3.17	3.37
Other employee benefits	24.03	17.42	18.71
Total	2372.25	2077.96	1997.10

People performance data

Work force Profile									
Permanent Employees: Category-wise and Gender-wise									
Employee Category	2016-17			2015-16			2014-15		
	M	F	Total	M	F	Total	M	F	Total
Executives	1743	85	1828	1774	87	1861	1800	84	1884
Non-executives (Technical)	3088	239	3327	2984	242	3226	2909	231	3,140
Non-executives (non-technical)	15421	1460	16881	15909	1401	17310	15834	1401	17235
Total	20252	1784	22036	20667	1730	22397	20543	1716	22,259
Permanent Employees: Region-wise and Gender -wise									
Region	2016-17			2015-16			2014-15		
	M	F	Total	M	F	Total	M	F	Total
Ib Valley Coalfield	8043	546	8589	8495	524	9019	8525	510	9035
Talcher Coalfield	11436	1151	12587	11418	1123	12541	11261	1129	12390
Corporate	773	87	860	754	83	837	757	77	834
Total	20252	1784	22036	20667	1730	22397	20543	1716	22259

Workforce Profile									
Contractual Employees: Region-wise									
Region	FY 2016-17			FY 2015-16			FY 2014-15		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Talcher Coalfield	9100	83	9183	9404	3	9407	9565	48	9613
Ib Valley Coalfield	6952	46	6998	5709	40	5749	5360	22	5382
Corporate	472	41	513	432	42	474	473	8	481
Total	16524	170	16694	15545	85	15630	15398	78	15476

Employee Hires Statistics																		
Employee Hire Category	FY 2016-17						FY 2015-16						FY 2014-15					
	Executives		Non-executives		Total		Executives		Non-executives		Total		Executives		Non-executives		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Appointment under NCWA - 9.3.0 (in case of death)	0	0	69	30	69	30	0	0	48	23	48	23			63	24	63	24
Appointment under NCWA - 9.4.0 (in case of permanent disability)	0	0	1	1	1	1	0	0	1	0	1	0						
Appointment under land oustees	0	0	309	62	309	62	0	0	695	60	695	60			533	36	533	36
Fresh recruitment	62	0	166	5	228	5	85	9	191	28	276	37	106	16	107	0		
Re-instatement	0	0	1	0	1	0	0	0	1	1	1	1			100	16	100	16
Transfer from other company	111	5	9	0	120	5	37	0	5	0	42	0	32		13		45	0
Appointment against (SFVRS)	0	0	1	0	1	0	0	0	68	0	68	0	0	0	0	0	0	0
Total	173	5	556	98	729	103	122	9	1009	112	1131	121	138	16	816	76	954	92

Employee Turnover Statistics																		
Employee Turnover Category	FY 2016-17						FY 2015-16						FY 2014-15					
	Executives		Non-executives		Total		Executives		Non-executives		Total		Executives		Non-executives		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Death	2	0	127	4	129	4	3	0	119	2	122	2	5		106	8	111	8
Dismissal	0	0	6	0	6	0	2	0	8	0	10	0	4		1	1	5	1
Resignation	32	3	15	2	47	5	23	2	10	1	33	3	22	2	6	2	28	4
Retirement	65	0	699	23	764	23	65	1	617	25	682	26	65	1	628	13	693	14
Removal / Termination	15	1	70	1	85	2	14	1	106	0	120	1	19	3	101	12	120	15
ESS / VRS				10	0	10	0	0	1	69	1	69	1		4	26	5	26
Medically unfit	0	0	0	0	0	0	0	0	1	0	1	0			3		3	0
Transfer to other company	90	3	24	1	114	4	39	4	1	0	40	4	26	1	5		31	1
Total	204	7	941	41	1145	48	146	8	863	97	1009	105	142	7	854	62	996	69

People performance data

Training statistics Trend							
Description		2016-17		2015-16		2014-15	
		No. Trained	Training Hours*	No. Trained	Training Hours	No. Trained	Training Hours
Executive	Male	1761	22.5	1604	27.93	1688	32.81
	Female	91	19.32	123	29	85	12.88
	Total	1852	22.4	1727	28.01	1773	31.87
Non-executive	Male	8092	37.29	8948	44.05	6053	32.64
	Female	483	36.96	545	34.36	255	29.12
	Total	8575	37.27	9493	43.49	6308	32.5
Non-executive	Skilled	6006	36.27	6943	39.84	5200	33.09
	Unskilled	2569	39.59	2550	53.46	1108	26.04
	Total	8575	37.27	9493	43.49	6308	31.85

Performance Review Statistics									
Employee Type: Executives									
Description	2016-17			2015-16			2014-15		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total Number of employees	1743	85	1828	1774	87	1861	1800	84	1884
Total number of employees receiving regular performance appraisals	1743	85	1828	1774	87	1861	1800	84	1884
Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%
Employee Type: Non-Executives									
Total Number of employees	18509	1699	20208	18893	1643	20536	18743	1632	20375
Total number of employees receiving regular performance appraisals	8012	2376	10388	6737	551	7288			
Percentage			51.40			35.48			

Safety Statistics																		
	FY 2016-17						FY 2015-16						FY 2014-15					
	Region wise				Gender		Region wise				Gender		Region Wise				Gender	
Category	Overall	TCF	IBV	HQ	M	F	Overall	TCF	IBV	HQ	M	F	Overall	TCF	IBV	HQ	M	F
Number of Facilities	6	4	2	0	6	0	2	1	1	0	2	0	1	1	0	0	1	0
Employees																		
Rates of Injury (IR)	0.0207	0.00774	0.01291	0	0	0	0.0009	0.0007	0.0002	0	0.0009	0	0.033	0.037	0.026	0	0.034	0
Occupational Disease Rate (ODR)	0	0	0	0	0	0	0.0009	0.0002	0.0007	0	0.0009	0	0.003	0.005	0	0	0.028	0
Lost Day Rate (LDR)	1.98082	0.98912	0.99170	0	1.98082	0	2.9473	1.6666	1.1814	0.1069	3.2354	0.2335	2.574	3.217	1.950	0	2.718	0
Absentee Rate (AR)	5.75	5.75	5.75	0	5.75	5.75	0.245	0.2386	0.2723	0.0118	0.2473	0.1965	0.214	0.208	0.253	0.009	0.216	0.149
Independent Contractors																		
Rates of Injury (IR)	0.00258	0	0.00258	0	0.00258	0	0	0	0	0	0	0	0.028	0.04	0.015	0	0.028	0
Occupational Disease Rate (ODR)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lost Day Rate (LDR)	0.01033	0.01033	0	0	0.01033	0	2.0833	1.2611	0.7661	0.056	2.0721	0.0112	2.719	3.749	2.313	0	2.765	0
Absentee Rate (AR)	5.75	5.75	5.75	5.75	5.75	5.75	0.3333	0.3333	0.3333	0	0.3333	0	0.324	0.331	0.312	0	0.324	0

Environment Performance Data

Raw Material Consumption Statistics				
Raw Materials		2016-17	2015-16	2014-15
Explosives (in tonnes)				
1	Permitted explosives	523.098	566.19	676.33
2	Large dia explosives	4,255.673	1,877.24	2,378.20
3	Bulk explosives	39,660.696	31,667.73	28,899.01
4	Cast boosters	85.200	72.52	64.05
Total		44,524.666	34,183.68	32,017.58
Detonators (in lakhs)				
1	CED	0.220	0.20	0.18
2	CDD	12.060	12.80	15.04
3	Cord relay	0.02	0.03	0.06
Total		12.30	13.03	15.28
Non-electric detonators (in numbers)		9,79,503	14,55,130	12,14,279
Detonating Fuses (in lakh metres)		2.86	4.32	5.72

Energy Consumption and GHG Emission Trend						
Particulars	Energy Consumption			tCO ₂ emissions		
	(GJ)					
	2016-17	2015-16	2014-15	2016-17	2015-16	2014-15
Scope 1	16,70,685.90	17,66,664.96	16,88,482.99	1,22,956.14	1,29,321.92	1,25,274.63
Scope 2	10,87,492.90	10,82,214.00	10,99,040.40	2,47,706.72	2,46,504.30	2,50,336.98
Scope 3	30,24,170.12	28,64,555.17	22,16,352.87	2,00,197.31	2,13,893.76	1,65,737.38
Total	57,82,348.92	57,13,434.13	50,03,876.26	5,70,860.16	5,89,719.99	5,41,349.00

Surface Water Consumption Statistics				
Name of Area / Project	Surface Water Sources	Total Water Withdrawn (million litres/year)		
		2016-17	2015-16	2014-15
IWSS Talcher	Brahmani River	10,821.42	10,821.42	16,888.80
IWSS Lakhanpur area	Hirakud Reservoir (Mahanadi)	98,29.49	893.59	2,449.44
IWSS Ib Valley area	Ib River	3,288.42	3,288.42	7,275.30
IWSS Basundhara	Basundhara River	326.16	326.16	791.42
MCL Headquarters, Burla	Power Channel (Mahanadi)	364.59	364.59	182.40
Total		24,630.08	15,694.18	27,587.36

Environment Performance Data

Ground Water Usage Statistics			
Ground Water Usage Details	Quantity of Water (million litres / year)		
	2016-17	2015-16	2014-15
Annual makeup of water in mines	95,422.68	86,008.95	80,165.00
Mine water used	15,570.9	33,898.18	40,366.25
Domestic use	5,701.300	5,215.79	6,618.00
Industrial use	14,925.580	17,786.05	13,707.00
For surroundings	15,570.9	10,896.35	20,041.25

Air Quality Data – FY 2016-17			
Air Quality Parameters	Talcher Coalfield	lb Valley Coalfield	Total
Total particulate matter (kg)	90,21,148.00	1,10,71,122.00	2,00,92,270.00
SOx (Kg / Te)	43,357.00	54,231.00	97,588.00
NOx (Kg / Te)	61,966.00	32,268.00	94,234.00
PM 2.5 (Kg / Te)	13,53,172.20	16,60,668.30	30,13,840.50

Waste Disposal Statistics				
Waste Category		Quantity Disposed Off		
		2016-17	2015-16	2014-15
Hazardous	Burnt oil (kL)	98.00	126.00	397.00
	Battery (numbers)	5,624.00	1,808.00	1,138.00
	Miscellaneous items	1,806.00	-	10.00
Non-hazardous	Drill bits (numbers)	823.00	-	150.00
	Tyres (numbers)	345.00	1,619.00	3,740.00
	Iron and steel	1,431.00	1,550.00	2,566.40
	Empty drums (numbers)	1,100.00	2,554.00	-
	Vehicles (numbers)	30.00	70.00	19.00
	Miscellaneous items (MT)	5.00	17.15	200.00

Environmental Performance Data

Environmental Expenditure			
Details of Expenditure	2016-17	2015-16	2014-15
Capital Expenditure	INR (lakhs)		
Civil works- plantation and afforestation	0.00		-10.16
Civil works- effluent treatment plant	82.06		
Civil works- effluent treatment plant under construction	31.51		12.77
Civil works- settling ponds & oil & grease traps	22.44	7.62	
Surface Miners	0.00	0	340.44
Water Sprinklers	272.40	0	0
Dust suppression equipment	5.20	5.39	0
Vehicles ESMP	-2.50		0
Water treatment plants	19.18	85.11	50.45
Environmental monitoring equipment	12.63		0
Noise level meter	27.71		
Other environmental expenses		0.75	-14.56
Total Capital Expenditure (A)	470.63	98.87	378.94
Revenue expenditure			
Tree plantations	282.60	126.58	98.77
Other Environmental expenses	751.56	777.31	695.65
Water tax/ cess	2117.30	189.99	873.6
Environmental training and seminars	0.35	1.11	0.3
Environmental monitoring cost for air, water and noise	549.94	106.15	272.35
Environmental- related operations and maintenance-catch/ garland drain/ fencing	56.12	98.35	67.39
Environment- related operations and maintenance – ETP/STP	33.45	18.83	10.4
Environment-related operations and maintenance – mobile and fixed water sprinklers.	68.65	77.57	75.96
Environment monitoring cost	1.11	3.98	3.06
Environmental related operations and maintenance- other dust mitigating equipment	38.84	22.17	25.46
Repair and maintenance for dust suppression measures	11.83	72.91	51.49
Miscellaneous –ground water monitoring, etc.	0.00	0	0
Dust suppression measures	5.94	13.12	27.89
Total Revenue Expenditure (B)	3,917.69	1,508.07	2,202.32
Total Expenditure (A+B)	4388.32	1,606.94	2,581.26

Social Performance Data

CSR Expenditure			
	2016-17	2015-16	2014-15
	INR (lakhs)		
Water Supply	732.19	864.91	779.65
Sanitation	20.10	10.43	81.38
Eradication of Poverty	0.15	7.27	
Healthcare	42.75	1,390.71	65.67
Education	12010.72	255.58	395.66
Social Empowerment	12.52		
Skill Development	14.20	15.88	
Women Empowerment	0.12	1.52	43.34
Empowerment of SCs/STs/ Senior Citizens	9.75	16.31	
Environmental sustainability	79.64	131.53	36.16
Sports	456.01	621.88	734.39
Relief Fund	0.00		
Protection of National Heritage	19.56	57.36	
Infrastructure Development	765.34	736.24	689.89
Road	711.73	1,261.04	2,689.01
Electricity	10.89		597.54
Other/Miscellaneous	0.30	23.32	17.5
Swachh Vidyalaya Abhiyan (for Construction of toilets) in Odisha by MCL	1774.34	13,070.12	
Total Expenditure	16660.34	18,464.10	6130.19

MAPPING WITH UNGC PRINCIPLES

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GRI Content Index

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G4-13	Significant changes of reporting period	None	
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization (sustainability approach)	23-27	
G4-15	Sustainability charters	88-93	
G4-16	List memberships of associations	21	
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES			
G4-17	Organization's consolidated financial statements	78-79	
G4-18	Definition of report content and Aspect Boundaries	3	
G4-19	Material aspects	30-31	
G4-20	Aspect Boundaries of Material Aspects Inside Organization	30-31	
G4-21	Aspect Boundaries of Material Aspects Outside Organization	30-31	
G4-22	Restatements of Previous Reported Data	None	
G4-23	Significant changes from previous reporting period	60	
STAKEHOLDER ENGAGEMENT			
G4-24	List of stakeholder groups	29	
G4-25	Basis of Engagement with Stakeholder Groups (stakeholder eng)	28	
G4-26	Stakeholder engagement (mode, frequencies)	29	
G4-27	Key Concerns of Stakeholders	31	
REPORT PROFILE			
G4-28	Reporting period	3	
G4-29	Date of most recent previous report (if any)	3	
G4-30	Reporting cycle (such as annual, biennial)	3	
G4-31	Contact point	3	
G4-32	GRI index	88-93	
G4-33	External assurance	Our data is audited during assurance process of our parent company -CIL	
GOVERNANCE			
G4-34	Governance structure	16,17	
G4-35	Sustainability strategy	23	
G4-36	Sustainability framework	26	

<6>,<3> Orange symbol with number indicates linkage to UNGC 'Ten principles',2000

General Standard Disclosures

Disclosure	Description	Page no.	Omission (if any)
GOVERNANCE			
G4-37	Sustainability engagements	28-29	
G4-38	Corporate governance	12	
G4-39	Whether the chair of the board is also an executive officer	Yes	
G4-40	Nomination and selection processes for the board and its committees	16-17	
G4-42	Board and executives' roles in the organization's mission statements, strategies, policies, and goals related to sustainability impacts	16-17, 23-26	
G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economics, environment and social topics.	16-17	
G4-45	Sustainability governance	23-26	
G4-46	Risk management framework	26-27	
G4-47	Frequency of Risk Review	26-27	
G4-48	Report the highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	26	
G4-49	Communicating critical concerns to highest governance body	16-17	
G4-51	Remuneration policies for the board and senior executives	16-17	
ETHICS AND INTEGRITY			
G4-56	Organization's values, principles, codes of conduct and codes of ethics.	18-19	
G4-57	Grievance redressal	20	
G4-58	Whistle blowing mechanisms or hotlines	20	

Specific Standard Disclosures

CATEGORY: ECONOMIC				
Material Aspects	DMA and Indicators	Description	Page no.	Omission (if any)
ECONOMIC PERFORMANCE	G4-EC1	Direct economic value generated and distributed	78	
	G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	42	
	G4-EC3	Coverage of the organization's defined benefit plan obligations	78	
	G4-EC4	Financial assistance received from government	34	
MARKET PRESENCE	G4-EC5 <6>	Ratios of standard entry level wage by gender	58	
	G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	All Locals refers to Indian nationals	
INDIRECT ECONOMIC IMPACTS	G4-EC7	Development and impact of infrastructure investments and services supported	66-68,86	
	G4-EC8	Significant indirect economic impacts, including the extent of impacts	68,86	

<6> Orange symbol with number indicates linkage to UNGC 'Ten principles', 2000

Specific Standard Disclosures

CATEGORY: ENVIRONMENT				
Material Aspects	DMA and Indicators	Description	Page no.	Omission (if any)
MATERIALS	G4-EN1	Materials used by weight or volume	83	
	G4-EN2	Percentage of materials used that are recycled input materials	54	
ENERGY	G4-DMA	Disclosure on Management Approach	39-42	
	G4-EN3 <7,8>	Energy consumption within the organization	39-40	
	G4-EN4	Energy consumption outside of the organization	40	
	G4-EN5 <7,8>	Energy intensity	41	
	G4-EN6 <7,8>	Reduction of energy consumption	39-41	
	G4-EN7	Reductions in energy requirements of products and services	40	
	WATER	G4-DMA	Disclosure on Management Approach	42
G4-EN8 <7,8>		Total water withdrawal by source	42-43	
G4-EN9		Water sources significantly affected by withdrawal of water	42	
G4-EN10 <8>		Percentage and total volume of water recycled and reused	42	
BIODIVERSITY	G4-DMA	Disclosure on Management Approach	51	
	MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	74	
	G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	All our facilities are outside of protected area and area of high biodiversity value	
	G4-EN12	Significant impacts on biodiversity	51-52	
	G4-EN13	Habitats protected or restored	53	
EMISSIONS	G4-EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	None	
	G4-DMA	Disclosure on Management Approach	41	
	G4-EN15 <7,8>	Direct greenhouse gas (GHG) emissions (Scope 1)	41,83	
	G4-EN16 <7,8>	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	41,83	
	G4-EN17 <7>	Other indirect greenhouse gas (GHG) emissions (Scope 3)	41,83	
	G4-EN18	Greenhouse gas (GHG) emissions intensity	41	
	G4-EN19 <8,9>	Reduction of greenhouse gas (GHG) emissions	41	
	G4-EN21 <7,8>	NOX, SOX, and other significant air emissions	84	
EFFLUENTS AND WASTE	G4-DMA	Disclosure on Management Approach	42-44	
	G4-EN22	Total water discharge by quality and destination	44	
	G4-EN23 <8>	Total weight of waste by type and disposal method	84	
	MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks	54	
	G4-EN25 <8>	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention ² Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	None	
	G4-EN26	Water bodies and related habitats significantly affected by the organization's discharges of water and runoff	44	
PRODUCTS AND SERVICES	G4-EN27 <7,8,9>	Mitigation of environmental impacts of products and services	41,44,46,	
COMPLIANCE	G4-DMA	Disclosure on Management Approach	37	
	G4-EN29 <8>	Environmental Fines	None	
TRANSPORT	G4-DMA	Disclosure on Management Approach	45	
	G4-EN30 <8>	Significant environmental impacts of transportation	45-46	

<7>,<8>,<9> Orange symbol with number indicates linkage to UNGC "Ten principles", 2000

Specific Standard Disclosures

CATEGORY: ENVIRONMENT				
Material Aspects	DMA and Indicators	Description	Page no.	Omission (if any)
OVERALL	G4-EN31	Total environmental protection expenditures by investments type	85	
	G4-EN32 <7,8,9>	Percentage of new suppliers that were screened using environmental criteria		We are working towards including this clause in the supplier selection criteria
ENVIRONMENTAL GRIEVANCE MECHANISMS	G4-EN34	Environmental Grievances and their Redressal	None	

CATEGORY: SOCIAL				
LABOUR PRACTICES AND DECENT WORKS				
Material Aspects	DMA and Indicators	Description	Page no.	Omissions (if any)
EMPLOYMENT	G4-DMA	Disclosure on Management Approach	57-59	
	G4-LA1	Employee hires and turnover rates by age, gender and region	80	
	G4-LA2	Benefits provided to full-time employees	58,66	
	G4-LA3	Return to work and retention rates after parental leave, by gender	58	
LABOUR/MANAGEMENT RELATIONS	G4-DMA	Disclosure on Management Approach	66	
	G4-LA4	Minimum notice periods regarding operational changes	66	
	MM4	Number of strikes and lock-outs exceeding one week's duration by country	57	
OCCUPATIONAL HEALTH AND SAFETY	G4-DMA	Disclosure on Management Approach	62	
	GA-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	64	
	G4-LA6	Type of injury & rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and by gender	64,48	
	G4-LA7	Workers with high incidence of high risk of occupational diseases	24,64	
	G4-LA8	Health & safety topics in formal agreements with trade unions		
TRAINING AND EDUCATION	G4-DMA	Disclosure on Management Approach	60	
	G4-LA9 <6>	Average hours of training per year per employee by gender & type	81	
	G4-LA10 <6>	Programs for skills management and lifelong learning	61	
	G4-LA11 <6>	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	60,81	
DIVERSITY AND EQUAL OPPORTUNITY	G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	16-17	
EQUAL REMUNERATION FOR WOMEN AND MEN	G4-DMA	Disclosure on Management Approach	58	
	G4-LA13 <6>	Ratio of basic salary and remuneration of women to men	58	
SUPPLIER ASSESSMENT FOR LABOUR PRACTICES	G4-DMA	Disclosure on Management Approach	36	
	G4-LA14	Percentage of new suppliers screened using labour practices		We are working towards including this clause in the supplier selection criteria.
	G4-LA15	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken	None	
LABOUR PRACTICES GRIEVANCE MECHANISMS	G4-LA16	Number of grievances about labour practices filed, addressed and resolved through formal grievance mechanisms	66	

<6> Orange symbol with number indicates linkage to UNGC 'Ten principles', 200

Specific Standard Disclosures

CATEGORY: SOCIAL				
SUB CATEGORY: HUMAN RIGHTS				
Material Aspects	DMA and Indicators	Description	Page no.	Omission (if any)
INVESTMENT	G4-DMA	Disclosure on Management Approach	21	
	G4-HR1 <2>	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	21	
	G4-HR2	Total hours of employee training on human rights policies		There is no specific training on human policies but as a part of all our training programs we include fundamentals and importance of human rights.
NON-DISCRIMINATION	G4-DMA	Disclosure on Management Approach	57	
	G4-HR3 <2>	Total number of incidents of discrimination and corrective actions	58	
ECONOMIC PERFORMANCE	G4-HR4 <3>	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	66	
CHILD LABOUR	G4-HR5 <5>	Operations and suppliers identified as having significant risk for incidents of child labour, and measures taken	21	
FORCED OR COMPULSORY LABOUR	G4-HR6 <4>	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labour, and measures taken	21	
INDIGENOUS RIGHTS	G4-HR8 <1>	Total number of incidents of violations involving rights of indigenous peoples and actions taken	21	
ASSESSMENT	G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	21	
	MM5	Operations taking place in or adjacent to indigenous people's territories	21	
SUPPLIER HUMAN RIGHT ASSESSMENT	G4-HR10 <2>	Percentage of new suppliers screened using human rights criteria	None	
	G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	None	
HUMAN RIGHTS GRIEVANCE MECHANISMS	G4-HR12 <1>	Number of grievances about human rights impacts filed, addressed and resolved through formal grievance mechanisms	21	
SUB CATEGORY: SOCIETY				
LOCAL COMMUNITIES	G4-DMA	Disclosure on Management Approach	67	
	G4-SO1 <1>	Percentage of operations with implemented local community engagement, impact assessments, and development programs	67-73	
	G4-SO2 <1>	Operations with significant actual or potential negative impacts on local communities	74,45-46	
	MM6	Significant disputes relating to land use, customary rights of local communities and indigenous people	74-75	
	MM7	Grievance mechanisms use to resolve disputes	75	Quantitative information pertaining to this indicator will be provided in future.
ANTI-CORRUPTION	G4-DMA	Disclosure on Management Approach	18	
	G4-SO3 <10>	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	20	
	G4-SO4 <10>	Communication and training on anti-corruption policies and procedures	19	
	G4-SO5 <10>	Confirmed incidents of corruption and action taken	20	
PUBLIC POLICY	G4-SO6 <10>	Total value of political contributions by country and recipient/beneficiary	34	
ANTI-COMPETITIVE BEHAVIOUR	G4-SO7	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	18-20	
COMPLIANCE	G4-SO8	Significant fines for non-compliance with laws and regulations	None	
	MM9	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process.	76	

<1>,<2>,<3>,<4>,<5>,<10> Orange symbol with number, indicates linkage to UNGC 'Ten principles',2000

Specific Standard Disclosures

SUB CATEGORY: SOCIETY				
Material Aspects	DMA and Indicators	Description	Page no.	Omission (if any)
CLOSURE PLANNING	G4-DMA	Disclosure on Management Approach	55	
	MM10	Number and percentage of operations with closure plans	55	
GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY	G4-S09	Percentage of new suppliers screened for impacts on society		We are working towards including this clause in the supplier selection criteria
	G4-S010	Significant actual and potential negative impacts on society in the supply chain and actions taken	None	
	G4-S011	Number of grievances about impacts on society filed, addressed and resolved through formal grievance mechanisms	None	
SUB CATEGORY: PRODUCT RESPONSIBILITY				
CUSTOMER HEALTH & SAFETY	G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	None	
PRODUCT AND SERVICE LABELING	G4-PR5	Results of surveys measuring customer satisfaction		No formal surveys have been conducted by us however, we continuously engage with our customers and implement the feed back received.
MARKETING COMMUNICATIONS	G4-PR6	Sale of banned or disputed products	48	
	G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	None	
COMPLIANCE	G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	37-38	

GLOSSARY

AIDS	Auto Immunodeficiency Syndrome
AR	Absentee Rate
ATM	Automated Teller Machine
BCCL	Bharat Coking Coal Limited
BCML	Bhubaneswari Coal Mining Limited
BDO	Block Development Officer
BEML	Bharat Earth Movers Limited
BOM	Build Operate Maintain
BT	Billion Tonne
BTI	Belpahar Training Institute
CBA	Coal Bearing Areas
CCL	Central Coalfields Limited
CCTV	Closed-circuit Television
CDD	Coal Delay Detonators
CED	Copper Electric Detonator
CESU	Central Electricity Supply Utility of Orissa
CGM	Chief General Manager
CHP	Coal Handling plant
CIAL	Coal India Africana Limitada
CIL	Confederation of Indian Industries
CIL	Coal India Limited
CIMFR	Central Institute of Mining and Fuel Research
CISTEA	Coal India Schedule Caste/ Scheduled Tribe Employees Association
CMAL	Coal Mines Authority Limited
CMC	Contract Management Cell
CMD	Chairman cum Managing Director
CMPDI	Central Mine planning and Design Institute
CO ₂	carbon Dioxide
CPA	Critically Polluted Area
CPCB	Central Pollution Control Board
CPSE	Central Public Sector Enterprise
CPSI	Coal Preparation Society of India
Cr	Crore
CRO	Chief Risk Officer
CSR	Corporate Social Responsibility
CVO	Chief Vigilance Officer
D.G.	Diesel Generator
DGMS	Directorate General of Mines Safety
DGPS	Differential Global Positioning System
DPE	Directorate of Public Enterprises

DPR	Detail Project Report
EC	Environmental Clearance
ECL	Eastern Coalfields Limited
E&M	Electrical Coalfields Limited
ETP	Effluent Treatment Plant
FC	Forest Clearance
FSA	Fuel Supply Agreement
FY	Financial Year
GCV	Gross Calorific Value
GENXT	Generation Next
GHG	Green House Gas
GJ	Giga Joules
GM	General Manager
Govt.	Government
GPS	Global Positioning System
GRC	Grievance Redressal Cell
GRI	Global Reporting Initiative
GVTO	Government Officer
Ha	Hectare
HBI	Hirakhud Bundia Inclined
HEMM	Heavy Earth Moving Machinery
HOD	Head of Department
HPC	High Power Committee
HQ	Head Quarter
HR	Human Resources
HRC	Hingir Rampur Colliery
HRD	Human Resource Development
HSD	High Speed Diesel
ICC	Internal Complaints Committee
IDCO	Infrastructure Development Corporation
IED	Industrial Engineering & Design
IEM	Independent External Monitors
IIM	Indian Institute of Management
IIT	Indian Institute of Technology
IME	Initial Medical Examination
IMS	Integrated Management System
INR	Indian National Rupee
IR	Rates of Injury
ISO	International Standards Organisation
ISTD	Indian Society of Training and Development
IWSS	Integrated Water Supply Scheme
JCC	Joint Consultative Committee
KL	Kilolitre
Km	Kilometre

Km ²	Square Kilometre
KVAR	Kilovolt-Ampere Reactive
kWh	Kilowatt Hour
L	Litres
L&R	Land and Revenue
LDR	Lost Day Rate
LED	Light Emitting Diode
LHD	Load Haul Dumper
Ltd	Limited
m ³	Cubic Metre
M.Cu	Million Cubic Meter
M.Te	Million Tonne
MBPL	Mahanadi Basin Power Limited
MCL	Mahanadi Coalfields Limited
MDTP	Mine Discharge Treatment Plant
MEETI	Mining Engineering & Excavation Training Institute
MGMI	Mining Geological and Metallurgical Institute of India
MGR	Merry Go Round
MIMSR	Mahanadi Institute of Medical Science and Research
MINREM	Institute of Natural Resources and Energy Management
mm	Millimetre
mm ³	Million Cubic Metre
M&M	Materials Management
MOC	Ministry of Commerce
MoC	Ministry of Coal
MOEF	Ministry of Environment & Forest
MoU	Memorandum of Understanding
MOSPI	Ministry Of Statistics and Program Implementation
MP	Madhya Pradesh
MEME	Micro, Small and Medium Enterprises
MT	Million Tonne
MTI	Management Training Institute
MTY	Million Tonne per Year
MW	Megawatt
NABL	National Accreditation Board for Testing and Calibration Laboratories
NCDC	National Coal Development Corporation
NCL	Northern Coalfields Limited
NCWA	National Coal Wage Agreement
NGO	Non-Governmental Organisation
NIOS	National Institute of Open Learning
NIT	National Institute of Technology
NoC	No Objection Certificate
NoX	Oxides of Nitrogen
NPTCPL	Neelanchal Power Transmission Company Private Limited

N & R	Nomination and Remuneration
NSCH	Nehru Shatabdi Central Hospital
OASME	Orissa Assembly of Small and Medium Enterprises
OB	Over Burden
OC	Open Cast
OCP	Open Cast Project
ODR	Occupational Disease Rate
OGT	Oil and Grease Traps
OHSAS	Occupational Health and Safety Assessment Series
OITDS	Operator Independent Truck Despatch System
OMS	Output per Man shift
PAFs	Project Affected Families
PAP	Project Affected People
PDPT	Post Diploma Practical Training
PFCC	Power Factor Correction Capacities
PGPT	Post Graduate Practical Training
PIS	Productivity Improvement Scheme
PLRCC	Project Level Rehabilitation and Resettlement Committee
PM	Particulate Matter
PME	Periodic Medical Examination
PMS	Performance Management System
P&P	Project & Planning
PPE	Personal Protective Equipment
PRP	Performance Related Pay
QC	Quality Control
RCCC	Regional Coal Consumers Council
R&D	Research and Development
R&R	Resettlement and Rehabilitation
REC	Renewable Energy Certificate
RFID	Radio Frequency Identification
RLS	Rapid Loading System
RMC	Risk Management Committee
RPDAC	Rehabilitation & Peripheral Development Advisory Committees
SAIL	Steel Authority of India Limited
SA 8000	Social
SCOPE	Standing Conference of Public Enterprises
SC/ST	Scheduled Caste/ Scheduled Tribes
SD	Sustainable Development
SDL	Side Discharge Loader
SECL	South Eastern coalfields Limited
Sox	Oxides of Sulphur
SPCB	State Pollution Control Board
SPV	Special Purpose Vehicle
S&R	Safety & Rescue

SSI	Small Scale Industries
STP	Sewage Treatment Plant
tco ₂ e	Tonnes of Carbon Dioxide Equivalent
Te	Tonne
TISS	Tata Institute of Social Sciences
TPM	Total Particulate Matter
UCCI	Utkal Chamber of Commerce and Industry Limited
UG	Underground
UDM	Universal of Drill Machine
UHF	Ultra High Frequency
UNGC	United Nations Global Compact
VRS	Voluntary Retirement Scheme
VTS	Vehicle Tracking System
W	Watt
WCL	Western Coalfields Limited
WETP	Water Effluent Treatment Plant
WIPS	Women in Public Sector
WTPs	Water Treatment Plants

Feed Back Form: MCL's SD REPORT 2016-17.

We value your feedback as it helps us to improve what we do and how we communicate. Please help us by taking a few minutes to complete this feedback form.

1. Were you able to find the information you needed? YES/NO

2. Do you think the report covered all of the important issues relating to sustainability? YES / NO

Are there any specific issue(s) you would like to see covered in our Sustainability Report?

Please specify

3. Which sections of our Sustainability Report were you most interested in? (Please tick all that apply)

Our Strategy Social Performance Environment Performance

Economic Performance Any other, please specify

4. Which of the following best describes you?

Employee Stakeholder Customer Industry Supplier Student

NGO / Charity Other (please specify)

5. Clarity of information provided in the report.

High Medium Low

6. Quality of design and layout of the report:

Excellent Good Average Poor

7. Would you like to tell us anything else about sustainability at MCL?

Name: _____

Designation: _____

Organization: _____

E-mail: _____

You may also mail /email your feedback to this address:

GM (Environment),
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Mahanadi Coalfields Ltd., sincerely thanks you for your valuable feedback



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