

## Highlights of achievement of CMPDI (2017-18)

Financial year 2017-18 had been a spectacular year for CMPDI. CMPDI, a Mini-Ratna Company, recorded excellent all-round performance during the year and received award for 'Excellent MoU Rating for 2016-17' with a score of 94.91%, as approved by CMPDI Board, on 43<sup>rd</sup> Foundation Day of Coal India Limited celebrated on 1<sup>st</sup> November, 2017 at Kolkata. CMPDI won two awards viz. 'Best House Journal (Hindi): 3<sup>rd</sup>' and 'Best Corporate Film: Commendation' at SCOPE Corporate Communication Excellence Awards 2017 held during 7<sup>th</sup>-8<sup>th</sup> December, 2017 at SCOPE, Convention Centre, New Delhi.

### Highlights:

- CMPDI achieved a new record in the field of exploration during 2017-18. CMPDI has achieved an **all-time high drilling of 13.66 lakh meter, surpassing the MoU target of 12.50 lakh metre during 2017-18**, as compared to 11.26 lakh metre achieved in previous year, through departmental resources and outsourcing, registering a **growth of about 21% over previous year**. Through departmental drills, it carried out about 4.50 lakh metre of drilling which is the highest in a year till date registering a growth of about 2% over last year by adopting latest mud technology, induction of new higher capacity drills and high performance bits.
- Highest ever drill productivity of 586 m/drill/month for Departmental Drills has been achieved.
- CMPDI and its contractual agencies took up exploratory drilling in 118 blocks/mines of 18 coalfields situated in 6 States.
- 23 Geological Reports have been prepared by CMPDI and its agencies establishing about **5.0 Billion Tonnes** of additional coal resources to the 'Measured (Proved) category'.
- Tenders for 17 blocks were floated, out of which, 12 blocks were awarded to Outsourced agencies for detailed exploration through E-tendering (Tender-cum-Reverse Auction).
- 2 Nos. of 2-D seismic survey reports for Behraband & Kewai Blocks in Sohagpur Coalfield have been submitted.
- HRSS (2-D Seismic) survey has been carried out in Gautam Dhara & Dipside of block-IV blocks in IB Valley Coalfield to decipher the

structure and to help the geological interpretation of the blocks and the work in Dipside of Sakhigopal-A block, Talcher Coalfield and Bartara block in Sohagpur Coalfield is under progress. Nearly 122 line km of seismic data has been collected in the above blocks.

- State of the art 'Paradigm software' for seismic data processing and interpretation has successfully been commissioned at CMPDI, Ranchi. All the current and future seismic reports will be prepared using this software.
- Interim seismic survey report on Gautamdihara Block in Ib Valley Coalfield using the newly installed Paradigm software has been prepared and the Final Report of the same shall be submitted after calibrating the seismic data with few proposed boreholes with sonic velocity to be drilled shortly.
- M/s Sercel make 'mini vibrator seismic energy' source has been procured by CMPDI which will enable to record seismic traces from depths in the range of 800-1000 metre with better resolution.
- Hydrogeological studies of a 17 number of mining projects/mines were taken up for preparation of 'Groundwater Clearance Application' for CGWA approval and EMP Clearance. CMPDI is also carrying out groundwater monitoring of MOEF cleared projects of CIL.
- 30 Project Reports have also been prepared with capacity addition of about 100 Mt per year.
- 43 Environment Management Plans (including 20 Form-I) have been prepared.
- **Dividend and Bonus Shares were issued by CMPDI for the first time since its incorporation.**
- Capital Expenditure target of ₹40.0 crore was achieved.
- ₹70.74 crore of fund was disbursed for R&D and S&T projects. 12 nos. of new R&D/S&T projects have been approved during the year.
- Controlled blasting and vibration studies were carried out in 21 different mines of CIL to protect the surrounding habitats/important structures and extraction of locked-up coal safely.
- Performance evaluation of 7 new explosive products were carried out during the year.

- Random sampling and testing of Explosives & Accessories being used in the mines of CIL were carried out throughout the year. Determination of Bench Mark Powder Factor were also carried out for 68 mines.
- CMPDI has been carrying Land Reclamation Monitoring of OC mines and vegetation cover mapping of coalfields in CIL on a regular basis since year 2009 based on satellite data. This has proved to be a very useful data for assessing the land reclamation and restoration in CIL OC mines, keeping in view the environmental concerns of the country and also for fulfilling requirements of MoEF & CC. This year 43 more opencast projects have been added for monitoring to the list of OC projects already being monitored in CIL. Hence, from this year 206 mines and 19 coalfields are being monitored using satellite data in phased manner.
- Monitoring of coal mine fire in Jharia, Raniganj, Karanpura and Bokaro coalfields have been done based on thermal remote sensing for the year 2017-18. Coal mine fires in these coalfields are under regular monitoring since year 2012 and provides information about the extent and dynamics of coal mine fire.
- An R&D project has been taken up in collaboration with NRSC/ISRO for satellite based regional air quality monitoring in coalfield areas. The project is aimed towards developing a methodology for providing vital online environmental data like PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> & NO<sub>x</sub> pertaining to coalfields. This project will be completed in 3 years.
- **Drones were used for the first time in CIL** for benchmarking its capabilities in various technical applications like generation of contours, ortho photos and computation of stock pile volumes. This project was executed in 2 mines of CCL, viz. Rajrappa & Topa and 4 mines of NCL, viz. Amlohri, Nigahi, Jayant & Dudhichua in outsourcing mode. CMPDI is working towards deployment of drones for regular operations in CIL in the near future.
- WebGIS based Coal Mine Management and Surveillance System (CMSMS) has been developed in association with Bhaskaracharya Institute of Space Application and Geo-Informatics (BISAG), Gandhinagar. This system has been developed for monitoring of illegal mining activities and taking suitable action to prevent such activities. The system will use satellite data and Mobile App for generating information about the location of illegal mining activities.

- CIL HQ was successfully certified for ISO 14001:2015 in June 2017 with guidance and support from CMPDI. As such, CIL HQ is now certified for ISO 9001:2015, ISO 14001:2015 and ISO 50001:2011 standards.
- Documentation of Integrated Management System Manual for CMPDI incorporating ISO 14001:2015 and ISO 50001:2011 has been completed and approved. CMPDI is now in the process of implementation of three standards i.e. ISO 9001:2015, ISO 14001:2015 & ISO 50001:2011.
- CMPDI became the largest accredited organization for 'Environmental Services' by QCI NABET with 90 experts in three sectors viz. (i) Mining of minerals including opencast / underground mining, (ii) Thermal power plants and (iii) Coal Washeries and 12 different functional areas.
- Regional Environment & Chemical Laboratory at CMPDI, RI-VII, Bhubaneswar has been successfully accredited with NABL accreditation. It is the only lab in CMPDI at present which has been accredited with NABL for sampling and testing of Air, Water as well as for Coal. This lab is carrying out on-line real time surface water quality monitoring of Brahmani and Ib rivers.
- CMPDI has developed the system for online generation of environmental monitoring report. Presently, generation of environmental monitoring report of CCL command area has been made operational. The said report in terms of air quality and most of the parameters for water quality are being generated directly from the equipment used for analysis with benefits of minimum human interference, avoidance of physical calculation errors and expediting environmental monitoring report submission. This has also resulted in submission of environmental monitoring report in electronic format thus avoiding use of paper for report preparation. Efforts are on to replicate this practice in other command area of CIL
- **Development of coal based non-conventional energy source:**  
Coal India Limited (CIL) has taken initiatives to undertake the work of extraction of Coal Bed Methane (CBM) from its mining leasehold areas. The initial activities include assessment of CBM potentiality in subsidiaries of Coal India Limited to delineate CBM/CMM blocks in Damodar Valley Basin. Accordingly, one block each have been delineated in Jharia Coalfields and Raniganj Coalfields.

- ✓ **Jharia Coalfield (in BCCL):** A CBM/CMM block has been delineated in BCCL mining leasehold with an area of 24 sq km covering Kapuria, Moonidih, Jarma, Singra blocks;
- ✓ **Raniganj Coalfield (in ECL):** A CMM block has been delineated in ECL mining leasehold within an area 57 sq km covering Sripur, Satgram and Kunustoria areas.
- ✓ A Pre-feasibility report and Global Bid Document has also been prepared for “Pre-drainage of Coal Mine Methane (CMM) from Moonidih UG Mine in Jharia Coalfield”;

On receipt of modified guideline from MoP&NG the process for global tender will be initiated to engage experienced developer/service provider for extraction and utilization of CBM. Further delineation of additional CBM blocks in CIL command areas are in progress.

- **Information and Communication Technology Services were provided to CIL and its subsidiaries:**
  - ✓ Full digital mode of File Management System of eOffice was launched by CMPDI on 19<sup>th</sup> June’17 and as such, CMPDI became the first PSU in Jharkhand fulfilling the objective of Mission Mode Project of Govt. of India.
  - ✓ Mobile Apps have been developed on behalf of Coal India for MoC. SEVA (Saral Eindhān Vitharan) has been developed and launched by Hon’ble Minister of Coal on 22<sup>nd</sup> May 2017.
- **Consultancy Services outside CIL:**
  - ✓ CMPDI has obtained **jobs worth ₹66.77 crores during 2017-18** from 27 Organisations which includes consultancy jobs from Ministry of Coal, PSUs/Govt. Organizations and Private Companies.
  - ✓ Jobs worth ₹33.46 crores have been successfully completed for 31 Organisations. Some of the major clients are NTPC, MOIL, MAHAGENCO, THDC, Odisha Coal & Power Ltd., Gujarat State Electricity Corporation Ltd., Madhya Pradesh Power Generation Company Ltd., etc.
- CMPDI was actively involved from Concept to Commissioning of Dahibari Washery (1.6 Mty) & Patherdih-I Washery (5.0 Mty) at BCCL, which have been inaugurated by Secretary (Coal) in January and March, 2018, respectively. Tenders for 6 more washeries (2 in MCL, 1 in SECL and 3 in CCL), prepared by CMPDI, have been floated.

- CMPDI has also prepared a pre-feasibility report and a Model Bid document for Coal processing units to meet the quantity and quality parameters for the coal consumers across CIL. Once implemented, these projects will give a boost to CIL's revenue as well as our corporate image.
- Collapsible OHE (Overhead Equipment) underneath Silo to facilitate rapid loading of coal into wagons by electric locomotive in view of continued obsoleting of diesel locomotive by railways has been designed and submitted to RDSO, Lucknow, which was approved for implementation in rapid loading arrangement for different subsidiaries of CIL.
- Solar Roof top power plants have been commissioned at RI-I, Asansol and RI-II, Dhanbad with capacity of 80 kWp and 30 kWp, respectively and work is in process for its installation at three more RIs.
- CMPDI celebrated Swachchhta Pakhwada from 15<sup>th</sup> Aug.'17 to 31<sup>st</sup> Aug.'17 and "Swachchhta hi Sewa" campaign from 15<sup>th</sup> Sept.'17 to 02<sup>nd</sup> Oct.'17 in which tree plantation including fruit bearing trees was carried out by HQ and all seven RIs. Cleanliness drive was carried out not only in the office premises of all drilling camps of the seven RIs and at HQ but also at different schools, villages to inculcate the habit of keeping self and surroundings clean. Swachchhta Oath was taken at mass level by students, villagers, officials, staff and residents. Drawing competition, nukkad natak, door to door campaign, wall paintings, swachchhta rallies were also organized.

**CSR (Major Activities):**

- ✓ **Empowering blind girls:** Computer cum training centre has been constructed and annual school fees for 12 blind girl students of Brajkishore Netraheen Balika Vidyalaya is being sponsored by CMPDI in 2017-18 for the skill development of the girls.
- ✓ **Promoting healthcare:** Assistance in the form of hospitalization cost including medical consultation, Treatment, Lab, Physio and Food of ten leprosy of Pyari Foundation - India Trust.
- ✓ **Promoting education among the poor:**
  - Sponsorship to girl students from BPL families for school fees, stationaries and uniforms under the banner of "Beti Padhao, beti bachao" has been provided to 50 students from Birsa Uchcha

Vidhyalaya and 30 students from Gondwana Primary School while scholarships have been provided to the meritorious students of both the schools.

- Construction of one Hostel room and installation of borewell at Sarswati Shishu mandir, Bilaspur.
  - Construction of toilet block with govt. Higher Secondary school at Bilaspur.
  - Sponsorship provided to 10 disabled students in Asansol.
- ✓ **Home for Orphans:** CMPDI has constructed a hall for the orphans of Karuna orphanage, Ranchi.
- ✓ **Rural development:**
- 4 nos. of Solar lights have been installed in khutitola village of Latehar
  - Kalyan Mandaps constructed in villages nearby drilling camps in Orissa

#### **Skill Development:**

In addition to skill development of its employees, training were provided to people outside the company:

- ✓ Internship training provided to 200 students of reputed Institutes from all over India.
- ✓ Under Apprentice Act 1961, training provided to 17 applicants of drilling diploma holder from Government Polytechnic, Koderma in drilling camps of CMPDI.

#### **Sports:**

- ✓ Three days 'Coal India Inter-Company Volleyball Tournament' was organized successfully at CMPDI, Ranchi from 28<sup>th</sup> to 30<sup>th</sup> Jan.'18 in which all the subsidiary companies of CIL including SCCL participated.
- ✓ Three days 'CMPDI Inter-RI Lawn Tennis Tournament' was also successfully organized at CMPDI, Ranchi which concluded on 5<sup>th</sup> Jan.'18.

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