

Highlights of achievement of CMPDI (2012-13)

Financial year 2012-13 had been a spectacular year for CMPDI. CMPDI recorded excellent all-round performance during the year and achievement in its major areas of operation touched its pinnacle in the annals of CMPDI.

CMPDI received “**Geospatial World Excellence Award 2012**” in recognition of excellent usage of Geospatial technology for Land Reclamation Monitoring of Coal Mines on behalf of Coal India Limited in Amsterdam, the Netherlands on 24th April, 2012. The award was given by Dr. Vanessa Lawrence, CB, Director General and Chief Executive, Ordnance Survey, UK in Geospatial World Forum, a leading international organization focused on Geospatial technology. A total of 149 nominations were received for the above award, out of which, CIL was selected by a panel of eminent international jury for this prestigious award.

Highlights (Provisional):

- CMPDI achieved a new record in the field of exploration during 2012-13. CMPDI have achieved an **all time high drilling of 5.63 lakh meter during 2012-13** as compared to 4.98 lakh meter achieved in previous year, through departmental resources and outsourcing, registering a **growth of 13%** over previous year. Through departmental drills, it carried out **2.76 lakh meter of drilling which is the highest in a year till date registering a growth of 1.2% over last year.**
- Exploratory drilling has been carried out in **102 blocks/mine spread over 22 coalfields in 6 States.**
 - ✓ **15 Geological Reports** have been prepared by CMPDI establishing about **3.3 Billion Tonnes** of coal resources to the ‘**Proved category**’. 9 Geological Reports have also been prepared under Promotional (regional) Exploration.
 - ✓ 2 deep boreholes more than 800m depth, highest ever for coal exploration, drilled by CMPDI in NQ size.
 - ✓ Specially designed TC bits introduced to achieve higher productivity in NCL areas.
- Final Report on ‘Integrated Coal Resource Information System’ (ICRIS) was submitted to Ministry of Coal. Updation of geological models and data continued. 40 models of zones have been completed during 2012-13.
- ICRIS web-site, containing database & GIS applications of different coalfields, was completed and inaugurated (by Secretary Coal, Govt. of India). The site can be used by different stake holders for gathering information of different coalfields.
- In-house developed ‘SASLINT’ software was modified to suit the latest geophysical recording equipment and data from Analog-recording of geo-physical probes to Digital-recording. Standards were tested in 3-4 coalfields. Software is ready for installation for interpretation of lithology and quality of coal which will help in reduction of quantum of band by band analysis of coal upto around 10%.
- ‘**E-tendering**’ introduced for outsourcing of detailed exploration. E-tendering successfully completed for 10 blocks.
- Surface geophysical surveys intensified to maximize the efforts in detailed exploration. **HRSS surveys (2-D Seismic) were completed in three blocks (highest ever)** one each in Talcher, Ib-valley & Singrauli coalfields. Geological Structure on the basis of these surveys interpreted. This will help in reduction of drilling/number of boreholes to be drilled for detailed exploration.

- **29 Project Reports** have also been prepared with **capacity addition of about 75 Mt per year**.
- **59 Environment Management Plans** (including 30 Form-I) have been prepared.
- **180 Environmental Audit Statements** have been prepared.
- **9 nos. of R&D and S&T projects** have been completed. Fund disbursed was Rs.22.75 crores.
- Land reclamation monitoring of total **50 nos. of opencast projects having more than 5 million cu.m. production capacity** (coal+OB) and **40 opencast projects having less than 5 million cu.m. production capacity** (coal+OB) of CIL based on high resolution satellite data has been completed.
- **Land use / vegetation cover mapping of 6 coalfields** viz. Karanpura, West Bokaro, East Bokaro, Bander, Singrauli and Korba based on satellite data has been completed.
- **Periodical OBR check measurement of 103 OC mines** (including outsourcing patches) has been carried out.
- **Model global bid document for opencast mine development & operation through “Mine Developer & Operator (MDO)”** route has been prepared by CMPDI for selection of “Mine Developer & operator” for open pit mining who will also finance, procure, construct, operate and maintain the mine to achieve coal production and overburden removal for a specified duration as per calendar plan. The draft RFQ along with salient points of the draft RFP was also discussed with prospective bidders.
- **Standard Bid Documents for procurement of Continuous Miner** on ‘Hiring basis’ and ‘Risk Gain sharing basis’ were prepared.
- **43 management system certifications** including 37 re-certifications have been achieved. Company wide certification for ISO 9001, ISO 14001 and OHSAS 18001 of MCL was taken up.
- **4 Soil Erosion Control Reports** and **7 Slope Stability Analysis Reports** have been prepared.
- An **indigenous tool for ‘performance evaluation of explosives and accessories’** has been **developed by CMPDI**.
- **Digital Image Analysis for fragmentation assessment** has been completed for all mines of NCL and four mines of MCL.
- **Random sampling, testing and analysis of explosives and its accessories** were carried out in different mines of CIL to have a check on the quality of explosives being supplied.
- **Powder Factor Studies** (16 nos.) were carried out in the mines of CCL, BCCL, WCL, SECL and NCL for determination of optimum size of fragments for different type of equipment.
- **Controlled blasting and vibration studies** (15 nos.) were carried out in the mines of CIL which determines safe charge per delay in each round of blasting to extract the locked coal lying upto a limit of 30 metres from the surrounding structures/buildings/dwellings, high tension power lines/dams, power plants/railway tracks, highway, important structures, etc.
- CMPDI has recorded a **turnover of ₹ 601 crores (highest till date)** in comparison to **₹524 crores** achieved during last year registering a **growth of about 15%**.

▪ **Consultancy Services outside CIL:**

- ✓ Against the MoU target to obtain Rs.33.60 crore worth consultancy jobs outside CIL during 2012-13, **CMPDI has obtained 32 work orders worth Rs.35.08 crores**. This includes consultancy jobs worth Rs.7.50 crores from Ministry of Coal for 'Preparation of Detailed Project Report of 6 nos. explored coal blocks for captive bidding' which was **completed within two month's record time**. A prestigious consultancy assignment worth Rs.7.62 crores was also obtained from M/s Odisha Industrial Infrastructure Development Corporation (IDCO) for preparation of "Comprehensive Master Plan for Talcher and Ib-Valley Coalfields'.
- ✓ 28 jobs worth Rs. 29.91 crores have been successfully completed and submitted to clients viz. Directorate General of Hydrocarbons, Manganese Ore (India) Ltd., National Thermal Power Corporation Ltd., Central Electricity Authority, Steel Authority of India Ltd., MahaGuj Collieries Ltd., Monnet Ispat & Energy Ltd, Jindal Steel & Power Ltd., etc.

▪ **Development of coal based non-conventional energy source:**

- Data dossiers on shale gas blocks and CBM Round V blocks, in pursuance to work awarded by DGH worth Rs.10 crore, were submitted. Both the jobs were very challenging and were taken for the first time.
 - **Greenhouse Gas recovery from coal mines and unmineable coalbeds and conversion to Energy (GHG2E):** CMPDI is the only identified company from India along with IIT Kharagpur, as a collaborative partner of this Multi-country multi-organization (5 countries and 12 partners) research project. *The contribution made by CMPDI was very much appreciated in the Progress Review Meeting at Imperial College, London during July 2012.*
 - CMPDI has taken up activities for **commercial development of CMM** within CIL areas. CMPDI has closely pursued the issue regarding operationalization of CMM with Ministry of Coal and Ministry of Petroleum and Natural Gas and with the constant pursuit of CMPDI, the matter got resolved between the two ministries in Aug.'2012 and has paved the way for taking up commercial development of CMM. CMPDI will take further action after getting a formal order in this regard for which required collateral activities have already been taken up.
 - Terms of 'India CBM/CMM clearinghouse' granted extension for a further period of 3 years which indicates the recognition of efforts made in the field of mitigation of greenhouse gases and development of CMM at an international level.
 - CMPDI is also in the process of enhancing capacity of already existing state of the art CBM lab which has been added with facility of TOC equipment for shale gas potentiality assessment.
 - Premier organizations like OIL, GERMI, Gujrat, RSPCL Rajasthan and Institutions of National Importance ie IIT Madras, IIT Bombay, Rajiv Gandhi Institute of Petroleum Technology (RGIT), Raebareli (UP) along with various other institutions like NIT, Rourkela, University of Petroleum and Energy Studies, Dehradun have shown keen interest to work with CMPDI in the field of development of clean coal technology and unconventional energy resources (CBM, CMM, UCG and Shale gas).
- 'Web enabled online recruitment application portal' has been successfully developed for Mahanadi Coalfields Limited and Eastern Coalfields Limited. This is a tool to accelerate the direct recruitment process for non-executive employees.

- **A workshop on 'Benchmarking of Coal Washing Technology and Reject Management'** was organised at CMPDI on 14th April, 2012 in association with Coal Preparation Society of India (CPSI) which was attended by dignitaries from Ministry of Coal, CMDs, Directors, CGMs, GMs of various Public and Private Sector enterprises. Various technical papers were presented which were aimed at sharing the knowledge in coal washing practices and reject management system with due regard to environment and sustainable development.
- Workshop on **"Drilling Practices- through difficult strata"** was organized to share experiences of different Govt. agencies engaged in coal exploration viz. CMPDI, GSI, MECL, SCCL for the benefit of drillers of CMPDI.
- Tie-up with Oil & Natural Gas Commission (ONGC) was done to impart training to drilling personnel of CMPDI on **'Drilling Fluid-Technology'**. Two batches of drilling personnel already trained by ONGC. Introduction of the technology helped in stabilising the borehole walls for smooth drilling operations.
- **MoU with GIPROSHAKHT, RUSSIA:** CMPDI signed a MoU with GIPROSHAKHT, RUSSIA on 15th June, 2012 for collaboration in the field of underground and opencast coal and metaliferrous mine planning and related activities.
- An indigenously developed engineering working model of an integrated opencast coal mine with CHP, pit head washery and thermal power plant was unveiled and placed for display at Earth Science Museum of CMPDI, which is of a unique kind in this country.
- Shri M. Shivanna, Ex-Member of Parliament and Hon'ble Member of National Commission of Schedule Caste, Govt. of India along with three other members held a review meeting at CMPDI on 22.5.2012 and expressed satisfaction on the performance of CMPDI.
- Govt. is putting emphasis on carrying out more **CSR (Corporate Social Responsibility) activities** by the Public Sector Undertakings and this has become integral part of MoU being signed by the PSUs with the Govt. Following major activities were carried out during the year:
 - 1) Ten medical camps were organized at Birsa High School, Gondwana Primary School & nearby villages and free medicines were made available to the needy.
 - 2) School fees to poor and meritorious students of different schools were provided.
 - 3) Study materials, school dress, almirah, desk-bench, plastic chairs, sports materials, lab materials, office table, tube lights, UPS, etc. were provided to different Schools and Charitable Organisations.
- CMPDI successfully organized "Coal India Inter-Company Chess Tournament 2012-13, at Ranchi from 25th-27th February, 2013 wherein players from all the subsidiaries of CIL including players from SCCL also participated.