

Indian Bureau of Mines

Annual Report 2020-21



Self-reliant India can't be possible without strong mining & mineral sector

**Prime Minister Narendra Modi,
18 June, 2020**

ANNUAL REPORT 2020-21



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Indian Bureau of Mines (IBM)

1.0 Vision, Mission, Objectives and Functions

The Indian Bureau of Mines (IBM) is a subordinate office under the Ministry of Mines. It is engaged in the promotion of scientific development of mineral resources of the country, conservation of minerals, protection of environment in mines, other than coal, petroleum and natural gas, atomic minerals and minor minerals. It performs regulatory functions with respect to the relevant provisions of Mines and Minerals (Development and Regulation) Act, 1957 and enforcement of the rules framed there under, namely Mineral Conservation and Development Rules, 1988/2017 and Mineral Concession Rules, 1960/2016 and Environmental (Protection) Act, 1986 and Rules made there under.

It undertakes scientific, techno-economic, research-oriented studies in various aspects of mining, geological studies and ore beneficiation studies.

1.1 Vision for IBM

The National Mineral Policy, 2008 (NMP) had envisioned diverse mineral development programmes and had formulated policy framework and strategies for providing a roadmap to achieve sustainable mineral development in the country. Therefore, the vision statement for IBM necessarily reflects the character of NMP, 2008.

Further, National Mineral Policy 2019 provides for strengthening of IBM with adequate man power, equipment and skill sets upgraded to state-of-the-art levels, to ensure enforcement of mining plans. NMP 2019 emphasises for strengthening of the regulatory mechanism by incorporating E-Governance, including satellite and remote sensing applications, end-to-end accounting of mineral/ore in the supply chain with use of IT enabled systems; maintaining resource inventory in accordance with a globally accepted public reporting standard.

NMP 2019 underlines upgradation of mining Technology to ensure extraction and utilization of entire ROM, better beneficiation and agglomeration techniques and maximum economic recovery of the associated minerals and valuable metals.

NMP 2019 construes conservation of minerals as a positive concept leading to augmentation of reserve/resource base. NMP 2019 highlights evaluation of mining operations in terms of their comparative performance on SDF and orderly & systematic mine closure.

Accordingly, the vision envisaged is: *“IBM to perform as a National Technical Regulator and to discharge the developmental functions for the sustainable development of the mineral industry and to work as repository of database on mines and minerals”*.

1.2 Mission

- 1) To ensure effective regulation of Indian Mineral Sector which promotes long term benefits for its sustainable growth.
- 2) To provide capacity building to State regulatory agencies and also to provide quality technical assistance to the mineral industry, and
- 3) To work as data bank on mines and minerals and to disseminate mineral information for policy formulations.

1.3 Objectives

- i. To work as National Technical Regulator operating at national-level designing systems, processes and guidelines for regulation of the mineral sector;
- ii. To function as a facilitator for creation and improvement of state-level regulatory mechanisms and to facilitate state agencies to ensure adherence to standards and parameters for scientific and systematic mining in the sector;
- iii. To work as catalytic agent for development of mineral sector by evolving capability & proficiency in beneficiation techniques; dissemination of knowledge and skills in mining and allied areas through its training facilities; consultancy services.
- iv. To play crucial role of that of facilitator to the Government in matters and issues relating to the mineral sector in areas of short-medium and long-term mineral-wise strategies, mineral taxation and legislative processes.

v. To play the role of National Repository of mineral data through maintaining a data bank of mines and minerals in the country by developing advanced IT based Mineral Information System enabling the industry to report and access information online, and

vi. To broaden its interactive base and reach out to overseas counter parts through consultations and exchange programmes and to build capacity, skill & expertise through academic and training programmes at institutes of international repute.

1.4 Present Charter of Functions

In the wake of liberalization of the policy regime governing mineral sector and increasing need for adequate environment management as part of systematic and scientific mining, the mandated functions for IBM, as given for notification in Official Gazette vide Resolution No. 31/ 49/ 2014 – M. III, dated 3rd November, 2014 are given below:-

- (i) Collect, collate and organize into a database, all information on exploration, prospecting, mines and minerals in the country in the shape of a National Mineral Information Repository and take steps to publish and disseminate the same;
- (ii) Function as the National Technical Regulator in respect of the mining sector, and lay down regulations, procedures and systems to guide the State Governments (first tier of regulation);
- (iii) Build up capacity in the system, both for regulatory as well as the developmental work, at the central level as well as at the level of the States;
- (iv) Establish institutional mechanisms of coordination between the centre, the States, mineral industry, research and academic institutions and all stake holders, so as to proactively develop solutions to the demands and problems faced by the industry;
- (v) Promote research on all aspects of practical relevance to the Industry and to act as bridge between research institutions on the one hand and user industry on the other;

- (vi) Provide Technical Consultancy Services;
- (vii) Participate in International collaborative projects in the area of regulation and development of the mineral sector;
- (viii) Advise Government on all matters relating to the mineral industry; and
- (ix) Undertake any such other activity as has become necessary in the light of developments in the field of geology, mining, mineral beneficiation and the environment.

1.5 Key Activities and Functions

In light of the role and charter of IBM, the key functions being performed by IBM can be broadly classified as (1) Regulatory Functions, and (2) Developmental Functions.

1.5.1 Regulatory Functions

- i. Mining Plan, Review of Mining Plan & Modification in the Approved Mining Plan -Inspections and Approval (Rule 13 to 17 of Chapter V of M (OAHCEM) CR 2016; Rule 9, 10, 11 & 12 of MCDR 2017);
- ii. Mining Regulations for ensuring implementations of Mining Plan, review of mining plan, Mine Closure Plan and other statutory provisions of MCDR 2017 and launching of prosecutions and compounding thereof (Section 22 & 24 of MMDR Act 1957);
- iii. Inspections and grant of permissions to carry out 'stoping' operations in underground mines (Rule 26 of MCDR1988/ Rule 30 of MCDR 2017);
- iv. Monitoring of Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) aspects of mining operations (Rule 13 and 31 to 41 of MCDR 1988/ Rule 11 and Rule 35 to 44 of MCDR 2017 and Section 10 of EP Act 1986);
- v. Facilitating in calculations of State-wise, mineral-wise and month-wise royalty on *ad valorem* basis by regulating the submission of monthly and annual returns

by the mining lease holders (Rule 64D of MCR 1960/ Rule 38 to 47 of M(OHEM) CR Rules, 2016 and Rule 45 of MCDR 1988/ 2017);

vi. Mine Closure Plan - Inspections, Approval and monitoring of Progressive and Final Mine Closure Plans (Rule 23A to 23F of MCDR 1988/ Rule 22 to 27 of MCDR 2017);

vii. Co-ordination with State Governments for curbing illegal mining activities (intimation of violation of Section 4(1) of MMDR Act 1957 to State Government agencies & monitoring of submission of quarterly return and compliance thereof, of illegal mining by various State Governments).

viii. As prescribed under Section 9(C) of the Act, IBM will discharge a pro-active role in NMET by furnishing inputs on mineral-wise conservation strategies, exploration gaps etc. keeping in view of the national interest.

ix. IBM administer the framework for sustainable development of the mining sector, as prescribed under section 20A (2) of the Act, through star rating of mines.

x. IBM will continue to publish the Average Sale Price (ASP) of all the major minerals through its MMS division. This information is required as per the rule 8 of Mineral (Auction) Rules, 2015 for calculating the "Value of estimated Resources" and "Value of the Mineral Dispatched" and that of 'Reserve Price' of the deposit to be put to auction. Further, based on the ASP as declared by IBM every month, assessment of ad-valorem royalty is also carried out by the State Governments.

1.5.2 Developmental Functions

(i) R&D in Mineral Processing - To play a role of a catalytic agency to promote & develop the much-needed R&D in mineral processing in the field of mineral beneficiation, mineral characterization, chemical analysis of ores and minerals and analysis of environmental samples;

(ii) Information Support and Facilitator Services- To function as a facilitator to the government in formulation of mineral policy, lending technical guidance & support for framing Mineral Acts and in articulating provisions, rules & regulations

thereof and lend it the credentials to formulate strategies, articulate policy requirements and oversee their implementation at both national and State levels;

(iii) National Mineral Inventory – Periodical Updation of National Mineral Inventory reflecting the micro-level status and possession of various mineral resources of the country as per the international standards of UNFC;

(iv) Repository on Mines & Minerals – To shoulder the responsibility for collection, processing and storage of statistical data in respect of all major minerals through statutory and non-statutory basis;

(v) Publications on topical interest – To assort process and analyze mines and mineral information generated on account of statutorily and non-statutorily collected information and supply them as important inputs for policy interventions, and

(vi) Training and Capacity Building – To provide training facilities for human resource development and to develop required technical expertise and skill in the personnel manning the mineral industry.

2.0 Organizational set up of IBM

IBM has its headquarters at Nagpur, 4 Zonal Offices at Bengaluru, Nagpur, Udaipur and Kolkata, and 13 Regional Offices at Ajmer, Bengaluru, Bhubaneswar, Chennai, Gandhinagar, Goa, Dehradun, Guwahati, Hyderabad, Jabalpur, Nagpur, Ranchi and Raipur. During the year 2017, IBM opened two new skill development centres for sustainable mining practices at Udaipur and Kolkata. IBM has well-equipped ore dressing laboratories and pilot plants at Ajmer, Bengaluru and Nagpur.

2.1 Reorganization of IBM

In the light of transition due to change in the regulatory regime through MMDR Amendment Act, 2015 and transferring of 31 major minerals to the list of minor minerals, IBM had submitted a road map for redefining and restructuring of the organization.

The Ministry of Mines has approved opening up of new regional office at Raipur, Gandhinagar and New Delhi/NCR, upgradation of existing sub-regional office at Guwahati to regional office to cater to the needs of North Eastern Regions. The regional offices at Raipur and Gandhinagar have already been opened. The existing regional offices at Kolkata and Udaipur have been upgraded to the zonal office (East) and zonal office (North) respectively to evenly distribute work load amongst the other two zonal offices located at Nagpur and Bengaluru. Guwahati sub regional office is also upgraded as regional office. For the purpose of skill development an Institute of 'Sustainable Development Framework' at Udaipur and Kolkata and 'Remote Sensing Centre' at Hyderabad have been opened.

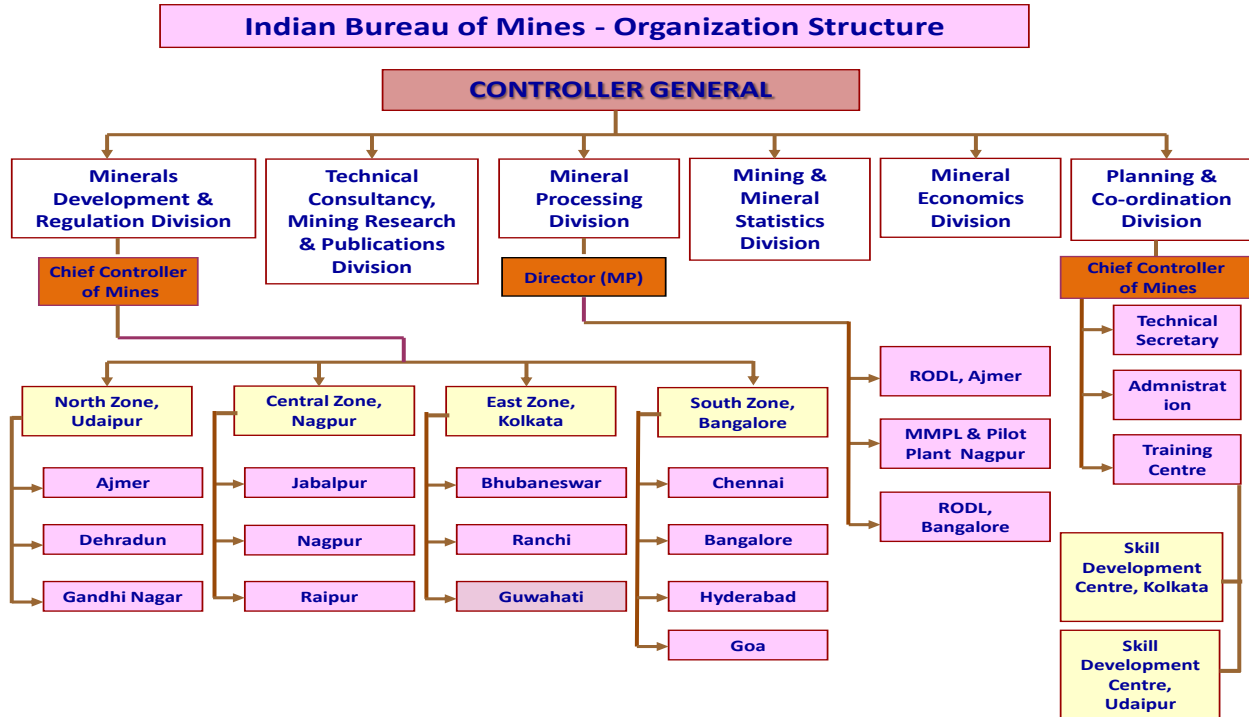
2.2 Organizational Structure of IBM

IBM is organized to discharge the functions assigned to it through six technical divisions, which are as follows:

- (i) Minerals Development & Regulation Division (MDRD)
- (ii) Mineral Processing Division (MPD)
- (iii) Mineral Economics Division (ME)
- (iv) Technical Consultancy Division (TC)
- (v) Mining and Mineral Statistics Division (MMS)

- (vi) Planning and co-ordination Division with two sub-divisions viz. (1) Planning and Co-ordination and (2) Administration.

Fig No. 1: The existing set-up is shown in the following organisation chart.



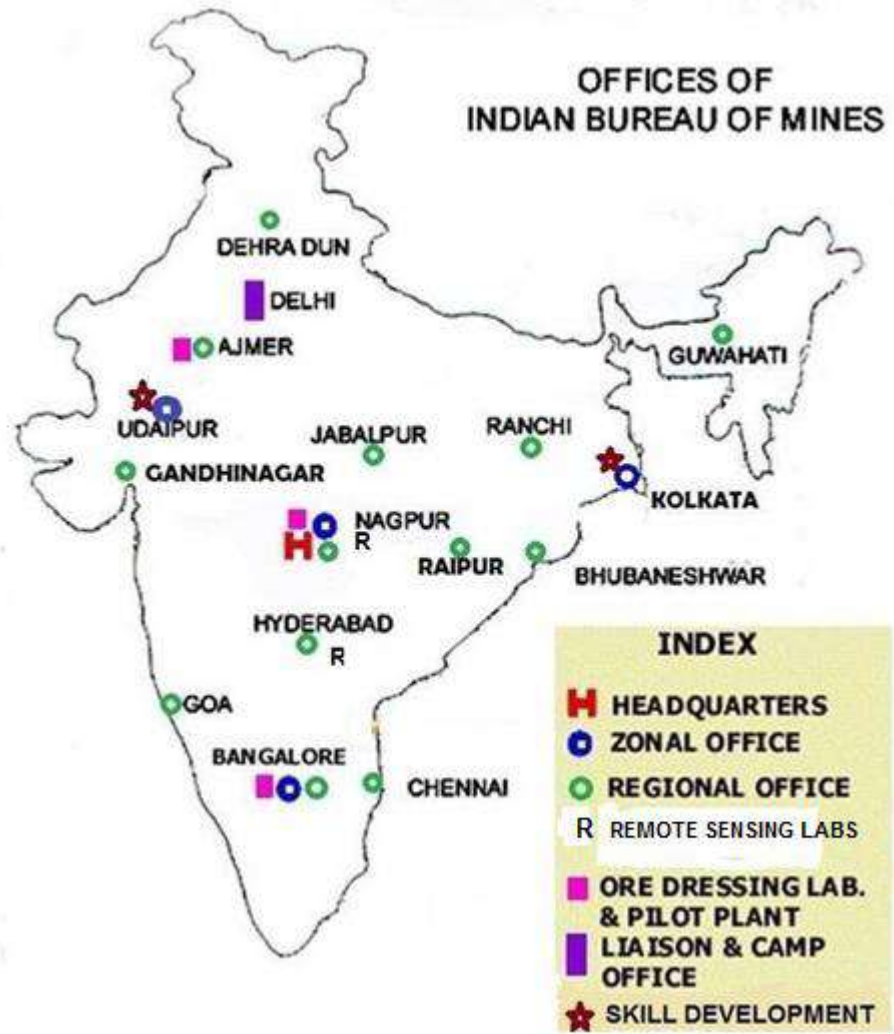
2.3 Modern Mineral Processing Laboratory and Pilot Plant

UNDP aided Modern Mineral Processing Pilot Plant and Analytical Laboratory of IBM is located at MIDC Hingna, Nagpur.

2.3.1 Regional Ore Dressing Laboratories

The Bureau has two Regional Ore Dressing Laboratories and Pilot Plants at Ajmer and Bangalore to cater to the mineral beneficiation needs of the neighbouring areas.

Fig No. 2: The location of Zonal, Regional Offices and Regional Ore Dressing Laboratories are shown in the map.



3.0 Schemes under implementation in IBM

All activities of IBM are being conducted through the following Schemes.

- Scheme No 1.** Inspection of Mines for scientific and systematic mining, mineral conservation and mine environment
- Scheme No 2.** Mineral Beneficiation Studies, utilization of low grade and sub grade ores and analysis of environmental samples.
- Scheme No 3.** Technological Upgradation and Modernization
- Scheme No 4.** Collection, processing, dissemination of data of mines and minerals through various publications
- Scheme No.5.** Mining Tenement System(under implementation)

3.1 Brief Description of Objective & Activities of the Schemes

3.1.1 Scheme No.1: Inspection of Mines for Scientific and Systematic mining, mineral conservation and mines environment.

3.1.1.1 Objective:

Promotion of conservation and scientific development of mineral resources and ensuring protection of mines environment in mining area through statutory enforcement as well as through promotional activities by carrying out periodical inspection/study of mines.

3.1.1.2 Brief Activities

Important activities include inspection of mines for enforcement of the provisions of Mineral Conservation and Development Rules, (MCDR) 1988/2017 and relevant provision of Mines and Minerals (Development and Regulation) Act, (MMDR) 1957, Mineral (other than Atomic & Hydro Carbon Energy Minerals) Concession Rule [M(OAHCEM)CR],2016, Environment (Protection) Act, 1986, and rules made there under, Processing and approval of mining plans, review of mining plans, modifications in approved mining plans and mine closure plan, star rating of mines under sustainable development framework, scientific studies (lump-fine ratio, threshold, RMGS etc.,) Task force/ joint inspections with State Govt., handholding with State Governments to facilitate auctioning of mineral blocks,

organizing mines environment and mineral conservation weeks to promote awareness to minimize environmental degradation as well as to boost reclamation and afforestation activities, spot guidance to mines management in all the aspects of mineral development followed with issue of violation/suggestions to adopt appropriate technology, launching prosecution against mine owners for violation of provisions of MCDR, 1988/2017 wherever necessary, facilitating government on saved cases of mineral concessions and other policy issues etc.

3.1.2 Scheme No. 2: Mineral Beneficiation Studies – utilization of low grade and sub-grade ores and analysis of environmental samples

3.1.2.1 Objective

Most of the mineral deposits found in the nature fall short of the grade required by the consuming industries and therefore needs upgradation by ore dressing process. IBM suggests ways and means for their economic utilization as a part of conservation studies of the department which is a statutory obligation of IBM. This is primarily to help directly or indirectly to the mineral industry to exploit the mineral resources of the country.

3.1.2.2 Brief Activities

Important activities include development of beneficiation process flow-sheet/know how of low grade ores and minerals in laboratory and pilot plant scale and to generate process data/parameters for design of commercial concentrator, development of process parameters for agglomeration studies, mineralogical analysis/examinations, recovery of values from plant tailing and ore slimes, catering to the R & D needs in minerals beneficiation, special studies of Platinum Group of Elements (PGE), Rare Earth Elements (REEs) and technology metals, knowledge sharing with stakeholders, imparting training in mineral processing, mineralogy, chemical/environmental analysis to scientists from overseas and Indian Institutions etc.

3.1.3 Scheme No. 3: Technological upgradation and Modernisation

3.1.3.1 Objectives

- (i) Implementation of Mining Surveillance System (MSS), Implementation of “SudoorDrushti” with National Remote Sensing Centre, Hyderabad, preparation of Mineral Maps with forest overlays.
- (ii) Consultancy services on charge and promotional basis to mining industry on mining, geological & environmental aspects.
- (iii) Development of new mining methods for scientific and systematic development of mineral resources and management of mining wastes.
- (iv) Human resources and infrastructure development in IBM.

3.1.3.2 Brief Activities

- a) Implementation of MSS which is a satellite-based monitoring system to establish a regime of responsive mineral administration, through public participation, by curbing instances of illegal mining activity through automatic remote sensing detection technology. The advantages of remote sensing technology-based monitoring system are that it is transparent, bias-free and independent system with deterrence effect (‘eyes watching from the sky’).
- b) Implementation of “SudoorDrushti” with National Remote Sensing Centre, Hyderabad, for monitoring of mining activities using satellite imagery and capacity building of IBM officers including technical support for setting up of remote sensing laboratory in IBM. The project would facilitate to monitor periodic changes of the mining areas within the mining lease boundary.
- c) Preparation of mineral maps with forest overlays covering the whole country with the details of free holds and lease holds areas and other prospecting mineral deposits, infrastructure etc. These multi mineral leasehold maps on a scale 1:50,000 with forest overlays are required to facilitate early environmental and forest clearance of mining projects by Ministry of Environment and Forests and Climate Change (MoEFCC), generation of environmental base line data for mining projects, preparation of Regional Environment Impact Assessment (REIA), Environment Impact Assessment (EIA) and Environment Management Plan (EMP) for mining

projects as well as risk analysis and preparation of disaster management plan, geotechnical investigations, design of stoping methods and preparation of mining feasibility reports and detailed project reports.

- d) To Impart training to scientific, technical and other cadres of IBM and also to persons from the mining industry, state/central govt. organization to update the skill and knowledge as an adjunct to human resources development.

3.1.4 Scheme No.4: Collection, processing, dissemination of data on mines and minerals through various publications

3.1.4.1 Objectives:

IBM collects data on mines and minerals through statutory returns and other means with a view to process, analyze and disseminate the data through various statistical and technical publications **as Indian Minerals Year Book, Monthly Statistics of Mineral Production, Mineral Industry at a Glance, Statistical Profiles of Minerals. IBM publications are available on IBM website through weblink**

["http://ibm.nic.in/index.php?c=pages&m=index&id=68&mid=23927"](http://ibm.nic.in/index.php?c=pages&m=index&id=68&mid=23927).

3.1.4.2 Brief Activities:

Updation of National Mineral Inventory (NMI) by adopting UNFC system covering non-coal and non-atomic minerals in the whole country. It is a globally understandable system, incorporating existing terms in order to make them comparable and compatible, thus enhancing international communication. The reserves/ resource figures with their unique codes and terminologies clearly demonstrate the procedures adopted in the investigation and evaluation of mineral prospect. This is an essential activity to be continued in tune with the National Mineral Policy, wherein special thrust has been given for attracting private investment.

Collection of data through statutory returns, collection of ancillary statistics on fuels, minor minerals, metals production, mineral trade and market prices of

minerals through correspondence with various agencies, collection of information on mining laws of various countries, market survey of demand and supply of minerals and metals, dissemination of data through periodic publications as Indian Minerals Year Book, Monthly Statistics of Mineral Production, Mineral Industry at a Glance, Statistical Profiles of Minerals etc., publishing state wise/mineral wise Average Sale Price (ASP) of minerals and metals for royalty calculation (disseminated through IBM weblink <http://ibm.nic.in/index.php?c=pages&m=index&id=912&mid=23791>)

3.1.5 Scheme No. 5: Mining Tenement System (MTS)

3.1.5.1 Objective of the Scheme:

MTS would primarily involve automating the entire mineral concession life-cycle, starting from identification of area and ending with closure of the mine; and connecting the various stakeholders for real-time transfer of electronic files and exchange of data. This shall enable effective management of mineral concession regime and transparency in mining operations, transportation of ore with the help of online electronic weighbridges and check-posts.

In some developed countries like Australia and Canada, a specialized software for processing and procedural part of granting various mineral concessions like RP, PL and ML has been designed and developed which is in operation since long. This system displays the details regarding ownership and other details such as area granted, mineral worked, tenure of the concession, taxes, compliance of rules and regulations, area available for grant, quality and quantity of the ore deposit, area relinquished after reconnaissance of RP and PL, prospecting reports available, details of infrastructure, land details with ownership status, etc. This online computerised system has been found very user friendly, as it provides the information in visual graphic form, known as Geographical Information System (GIS) and textual form. The computerization of land records, processing of applications for various concessions and transparency in the system has drastically reduced the time required for taking decisions in these countries. The information available online has speeded up the decision-making process and has attracted huge investment in mining industry.

3.2 Evaluation of IBM Schemes:

At the beginning of the 14th Finance Commission period, the IBM schemes have been evaluated by third Party namely Administrative Staff College of India (ASCI). Ministry of Mines, Government of India vide letter No.37/11/2017-Mines III dated 17.8.2017 had approved for engagement of Administrative Staff College of India (ASCI) for evaluation of the ongoing schemes of IBM.

In the Evaluation and assessment report ASCI, Hyderabad recommended for its continuation for a period of 5 years with a mid-term review at the end of 3 years. Final Report of “Evaluation of Ongoing Schemes of IBM” submitted by ASCI and comments /recommendations/justification of IBM on the Evaluation Report were forwarded to the Ministry vide letter of even number dated 30.10.2017 & 6.11.2017 for Ministry’s approval.

Ministry vide letter No.37/11/2017 dated 8.11.2018 conveyed approval of the competent authority for continuance of on-going schemes beyond 12th Plan period to the 14th Finance Commission Period. Vide the letter under reference Ministry further conveyed the approval of re-arrangement of activities amongst the four continuing schemes for implementation from Annual Plan 2019-2020 and accordingly activities are re-arranged.

At the beginning of the 15th Finance Commission period, the IBM schemes have evaluated by third Party namely Administrative Staff College of India (ASCI). Ministry of Mines, Government of India vide letter No.37/11/2017-Mines III dated 1.2.2021 has approved for engagement of Administrative Staff College of India (ASCI) for evaluation of the ongoing schemes of IBM. Evaluation Report submitted by ASCI along with Scheme wise inputs in SFC Formats have been submitted to the Ministry.

4.0 IBM performance during 2020-21

4.1 Salient Achievements 2020-21

- (i) For promotion of scientific development and conservation of mineral resources and ensuring protection of mines environment in mining areas, IBM carried out **871** inspection of mines for enforcement of provision of MCDR, 2017 and examination of MP/RMP/Mod.M.P./FMCP, disposed **66** mining plans, **253** review of mining plan and 14 final mine closure plans.
- (ii) For up gradation and utilization of low grade and sub-grade ores and minerals, IBM carried out **48** Ore dressing investigations, **14608** chemical analysis and 2290 mineralogical studies.
- (iii) Mining Tenement System: In the year 2020-21, Wipro's expressed its unwillingness to continue with the project in the Coordination Committee Meeting dated 18.12.2020. Coordination Committee recommended to accept the termination of contract with Wipro. The termination of contract with Wipro and NISG was accepted in the Core Committee meeting held under the chairmanship of Secretary (Mines) on 18.02.2021.

The requisite modules would be developed with the assistance of NIC and will be made available on the Portal of IBM.

- (iv) Star Rating of Mines: During 2020-21, 967 Mines have filed online star rating templates for assessment years 2019-20 under Rule 35 of MCDR, 2017 out of which 491 cases have been validated. After validation 45 leases fall under five star, 212 leases under four star. 195 falls under three star and 39 falls under "2 star and below". Validation process was in progress.
- (v) Mining Surveillance System (MSS): During phase II of the project, 52 triggers for major minerals and 130 triggers for minor minerals were generated and sent to respective state Governments for field

verification. So far field verification reports in respect of 45 triggers for major minerals and 104 triggers for minor minerals have been received out of which unauthorized mining in five cases of major minerals and 09 cases of minor minerals have been confirmed by the State governments. In the third phase up to February, 2021, 80 triggers are generated for major minerals and uploaded on the portal for further transmission to the state governments.

- (vi) Project “SudoorDrushti”: Under the Project “SudoorDrushti” action for setting up of “GIS & Remote Sensing Centre at IBM HQ, Nagpur and at IBM Hyderabad was in progress and installation of the Hardware was over. Training was arranged by software vendor for IBM officials on Photogrammetry in November, 2018. Action for extension of MOU with NRSC for “Capacity Building and Technical Support” was in progress. Twenty-two officials of IBM participated in training at NRSC, Hyderabad from 5th to 9th August 2019 under IBM - NRSC Remote Sensing Project.

MoU has been signed between IBM and MOIL on “Assessing the impact of mining activities around the leases and prospecting licenses of MOIL Ltd. through application of GIS and Remote Sensing techniques as a model pilot project’. Break line drawing in the cartosat-1 images for the year 2010, 2014 and 2018 for extraction of DEM is completed. The exploration data and other information required from M/s MOIL for DongriBuzurg Mine for implementation of the project was collected. The data has been geo-referenced and digitized. Change detection and volumetric estimation of pits and dumps has been carried out and draft report is prepared.

- (vii) To sensitize the importance of mineral conservation and protection of environment, Mines Environment and Mineral Conservation Weeks were kept as low profile events this year due to Covid 19 Pandemic and was observed at mine level.
- (viii) IBM provided various statutory inputs to ministry of Mines such as i) Case wise inputs on Section 10 A (2) (b) matters and ii) Comments on area limit relaxation matters under Section 6 (1) (b)

- (ix) For dissemination of data and statistics on mines and minerals, IBM released 18 statistical & Technical Publications and published State **wise/mineral wise Average Sale Price** of Minerals up to January, 2021 and of Metals up to February, 2021 which have been hosted on IBM website.
- (x) **Inputs for Replying Parliament Questions (PQs) & Ministry References:** Inputs for replying 122 PQs and 360 Ministry references was furnished to Ministry.
- (xi) Updation of National Mineral Inventory: During the year, data collection by literature survey such as referring of GSI reports, Annual reports of Exploration Agencies etc. through internet/e-office was in progress. Processing, scrutiny, verification and finalization of 1300 deposit- wise inventories completed. Synthesis of inventories of leasehold private with freehold and leasehold public sector data completed for 2700 deposits. Data entry, verification for computerization of inventories carried out for 1311 deposits.
- (xii) Implementation of amended Rule 45 of Mineral Conservation and Development Rules (MCDR) 1988/2017: Rule 45 of MCDR, 1988/2017 has made it mandatory for all mining lease holders, for any person, or company engaged in trading or storage or end use or export of minerals mined in the country to register online with IBM to keep accounts of mineral flow. Up to March, 2021, registration position for major minerals plus 31 minor minerals was that: total 6390 mining leases, 3574 units of end users, 6147 traders, 1839 stockiest and 1001 exporters have registered with IBM.
- (xiii) IBM created geo-database for multi-mineral leasehold maps with forest overlays in respect of major mineral bearing states which is being updated periodically.
- (xiv) As part of the capacity building of human resources, conducted 08 online training courses for IBM employees through VC-NIC wherein a total 292 IBM officials participated.

- (xv) **IBM restructuring & Expansion:** After the cabinet approval, detailed discipline-wise, revised sanctioned strength of IBM, is notified vide Gazette notification No. 31/72/2009-M.III.Vol.I (part-I) dated 15th May, 2018, published on 17.5.2018. For implementation of new manpower strength, recruitment Rules of some disciplines (mining stream up to CCOM, geology, mineral economics, administration, library stream, Rajabhasha stream, private secretary & stenographers) have been notified and for the other disciplines they are under finalization at various stages. The posts which includes merger or up gradation have not taken up for filling up for want of revised Recruitment Rules. In respect of the posts of Group B and C, where the authorities of IBM are competent to make appointment, the DPCs are being conducted regularly and for Direct Recruitment the requisitions are being sent to SSC.
- (xvi) Evaluation of IBM's continuing schemes: At the beginning of the 15th Finance Commission period, the IBM schemes have again been evaluated by third Party namely Administrative Staff College of India (ASCI). Ministry of Mines, Government of India vide letter No.37/11/2017-Mines III dated 1.2.2021 has approved for engagement of Administrative Staff College of India (ASCI) for evaluation of the ongoing schemes of IBM. Evaluation Report submitted by ASCI along with Scheme wise inputs in SFC Formats are being submitted to the Ministry.
- (xvii) **Record of data on NMET Contribution:** IBM devised Standard Proforma for obtaining data from State Governments in terms of provisions of Rule 7(5) of NMET (Amendment) Rule, 2018. Further as per Rule 7(6) of NMET (Amendment) Rule 2018 the nodal officers of IBM regularly coordinates with the respective state governments/ UT Departments and Lease Holders to collect & reconcile the data on royalty & NMET.

(xviii) IBM Collegium: New innovative decision-making system

To establish strong and effective in-house management structure for policy, planning, review and implementation of IBM's role as National level regulator, IBM Collegium has been constituted with

multidisciplinary participation. IBM Collegium holds its meetings every Wednesday and submits its recommendations to Controller General, IBM.

(xix) Annual Strategic Interaction Meet (ASIM)

Ministry of Mines has launched the concept of Annual Strategic Interaction Meet -2019 during 15th-30th April, 2019 to facilitate interaction between State Government and functionaries of Ministry of Mines, including IBM. Regional Controller of Mines of various regions would be participating in ASIM for co-ordination with respective State Governments.

(xx) During 2020-21, as per the framework received from Ministry of Mines, all the IBM offices observed Swachhata Pakhwada during 16th-30th November 2020 in office premises as well in mining site areas, nearby villages and schools with action points covering:

1. Awareness on cleanliness by placing posters / banners at public places and also dissemination if relevant information through electronic display at Office Premises.
2. Regular cleaning of almirahs and weeding out of files by following the procedures prescribed by the Government.
3. Arranging files at almirahs or cupboards in a proper manner as per the classification of files.
4. Replacing of old file covers with new one.
5. Shifting of offices including furniture to newly renovated areas inside Indira Bhawan at IBM (H.Q).
6. Ensuring cleaning of toilets and removal of cob webs.

5.0 Activity wise Performance of IBM 2020-21

The activities of IBM have been conducted through the four continuing schemes encompassing the mandates as enshrined in its charter of functions, by six divisions of IBM. Performance relating to various activities of IBM during the year 2020-21 is given hereinafter.

5.1 Inspection of Mines

During the year 2020-21, total 871 inspections for enforcement of the provisions of Mineral Conservation and Development Rules (MCDR) 2017 and for examination of mining plans/ review of mining plan /mine closure plans were carried out. Consequent to inspection of mines, 1296 violations were pointed out as against 1622 violations in 2019-20, in respect of 565 mines. Total 721 violations were rectified during the year. So far, for the reporting period, 04 cases were launched. Mining operations were suspended under Rule 11(2) of MCDR 2017 in 42 mines for not carrying out mining operations in accordance with the approved mining plan/ review of mining plan and recommended typical cases for suspension of leases to State Government for non-submission of online returns/ discrepancies in submitted returns. Also, 50 cases were recommended to State Government for termination of lease under Rule 12(10) of MCR, 2016. Details of state wise inspections carried out during 2020-21 are indicated in table No. 5.1A and follow up of MCDR administration in the form of violations pointed out etc are shown in table No. 5.1B.

Table No.5.1A: Inspection of Mines carried out by IBM during 2020-21

| Sl. No. | State | Inspections carried out during 2020-21 | | | | | Total (6) |
|---------|------------------|--|-----------------|----------------|---------------|---------------------|------------|
| | | MCDR (1) | Mining Plan (2) | SDF Rating (3) | RP PL etc (4) | MCDR under RMDS (5) | |
| 1 | Andhra Pradesh | 44 | 28 | 0 | 0 | 0 | 72 |
| 2 | Assam | 1 | 1 | 0 | 0 | 0 | 2 |
| 3 | Bihar | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | Chhattisgarh | 29 | 25 | 0 | 0 | 0 | 54 |
| 5 | Goa | 24 | 5 | 0 | 0 | 0 | 29 |
| 6 | Gujrat | 21 | 57 | 0 | 0 | 0 | 78 |
| 7 | Haryana | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Himachal Pradesh | 9 | 2 | 0 | 0 | 0 | 11 |
| 9 | J & K | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | Jharkhand | 32 | 10 | 0 | 0 | 0 | 42 |
| 11 | Karnataka | 30 | 47 | 8 | 0 | 0 | 85 |
| 12 | Kerala | 1 | 0 | 0 | 0 | 0 | 1 |
| | | | | | | | 13 |
| 13 | Madhya Pradesh | 64 | 72 | 0 | 0 | 0 | 6 |
| 14 | Maharashtra | 17 | 20 | 0 | 0 | 0 | 37 |
| 15 | Manipur | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Meghalaya | 15 | 8 | 0 | 0 | 0 | 23 |
| 17 | Orissa | 55 | 42 | 0 | 1 | 0 | 98 |
| 18 | Punjab | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Rajasthan | 21 | 26 | 21 | 0 | 0 | 68 |
| 20 | Sikkim | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Tamil Nadu | 62 | 25 | 0 | 0 | 0 | 87 |
| 22 | Telangana | 29 | 6 | 0 | 0 | 0 | 35 |
| 23 | Uttaranchal | 11 | 1 | 0 | 0 | 0 | 12 |
| 24 | Uttar Pradesh | 0 | 1 | 0 | 0 | 0 | 1 |
| 25 | West Bengal | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 465 | 376 | 29 | 1 | 0 | 871 |

Table No. 5.1B: Principal Violations of MCDR, 2017 detected by IBM during 2019-20 and 2020-21

| Rule No | No. of Violations Pointed out 2019-20 | No. of Violations Pointed out 2020-21(April 2020 to March 2021) | Rule description |
|----------------------------------|--|--|--|
| 11(1) | 518 | 300 | Rule11 (1) - Mining operations in accordance with mining plans |
| 11(3) | 03 | 06 | Rule 11 (3) - Submission of Review of Mining Plan / Scheme of mining |
| 20 | 08 | 01 | Rule 20 - Notice of opening of mine |
| 23 | 2 | 02 | Rule 23 - Submission of progressive mine closure plan |
| 26 (2) | 143 | 155 | Rule 26 (2) - Responsibility of the holder of mining lease to submit yearly report |
| 27(2)) | 10 | 6 | Rule 27(2) - Submission of Financial assurance |
| 28(1) | 20 | 14 | Rule 28 (1) - Notice of temporary discontinuance of mining operations |
| 31(4) | 33 | 30 | Rule 31(4) - Maintenance of plans and sections |
| 33 | 79 | 70 | Rule 33 - Copies of plans and sections to be submitted |
| 35,36,37, 38, 39,40,41, 42,43,44 | 180 | 225 | Protection of environment: Rule 35, 36, 37, 38, 39, 40, 41, 42, 43, 44 - Sustainable mining, removal and utilization of top soil, Storage of overburden, waste rock Precaution against ground vibrations, Control of surface subsidence, Precaution against air pollution, Discharge of toxic liquid, Precaution against noise, Permissible limits and standards, Restoration of flora respectively. |
| 45(5)(b) | 39 | 63 | Rule 45 (5) (b) - Submission of Monthly Return |
| 45(5)(c) | 116 | 69 | Rule 45 (5)(c) - Submission of Annual Return |
| 55(1)(c)(i) | 73 | 40 | Rule 55(1)(c)(i) - Employment of Whole time Mining Engineer/Geologist |
| 55(1)(c)(ii) | 11 | 38 | Rule 55(1)(c)(ii) - Employment of Part time Mining Engineer/Geologist |
| Others | 675 | 277 | |
| Total | 1910 | 1296 | |

5.2 Mining Plan, Review of Mining and Mine Closure Plan

The Mineral (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 and the Mineral Conservation and Development Rules, 2017 stipulate that mining operations are required to be conducted as per an approved Mining Plan and after extraction of minerals, the mines are required to be reclaimed as per an approved Mine Closure Plan. The Mining Plans are approved by the IBM and in case of mines of minor minerals including 31 notified (on 10.02.2015) non-metallic or industrial minerals; the powers have been delegated to respective State Governments. The Mine Closure Plan is required to comprise a Progressive Mine Closure Plan (PMCP) prepared for five yearly periods of the successive Review of Mining Plans which is now a component of Mining Plan and a Final Mine Closure Plan (FMCP), before the final closure of the mine. Mine Closure Plan is expected to address issues relating to environment protection including air, water and land protection, management of top soil and overburden, reclamation and rehabilitation of land and control on ground vibration, surface subsidence and restoration of flora.

Till the year 2020-21 (upto 31st March 2021), Financial Bank Guarantees for a value of `21,39,65,65,180/- i.e., `2139.6565 crores [as per revised per hectare rate of Rule 27(1) of MCDR, 2017] have been collected and certificates under Rule 29A of MCR 1960 / 21(4) of MCDR, 2017 have been issued for 07 cases (excluding 31 minor minerals) of partial or full surrender of lease area.

During the year 2020-21, 51 Mining Plans were approved and 15 not approved, 210 Review of Mining Plan were approved and 43 not approved and 09 Final Mine Closure Plans approved and 05 were not approved. State-wise break-up is given in the following table 5.2A.

Table No. 5.2A: State-wise Mining Plans/Review of Mining Plans / Schemes of Mining/Final Mine Closure Plans approved by IBM during 2020-21

| S. No | State | Mining Plans | | Review of Mining Plan | | FMCP | |
|--------------|----------------|--------------|--------------|-----------------------|--------------|----------|--------------|
| | | Approved | Not Approved | Approved | Not Approved | Approved | Not Approved |
| 1 | Assam | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | Andhra Pradesh | 0 | 1 | 19 | 14 | 0 | 0 |
| 3 | Jharkhand | 2 | 0 | 15 | 2 | 0 | 0 |
| 4 | Bihar | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Chhattisgarh | 1 | 0 | 17 | 1 | 0 | 0 |
| 6 | Delhi | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Goa | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Gujarat | 0 | 1 | 43 | 0 | 1 | 0 |
| 9 | Himachal | 0 | 1 | 3 | 0 | 0 | 0 |
| 10 | Haryana | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | J & K | 0 | 0 | 0 | 1 | 0 | 0 |
| 12 | Karnataka | 0 | 0 | 12 | 2 | 1 | 2 |
| 13 | Kerala | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | Madhya Pradesh | 13 | 0 | 45 | 3 | 1 | 0 |
| 15 | Maharashtra | 13 | 2 | 22 | 2 | 2 | 0 |
| 16 | Meghalaya | 0 | 3 | 2 | 13 | 0 | 2 |
| 17 | Manipur | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Odisha | 22 | 6 | 30 | 4 | 4 | 1 |
| 19 | Rajasthan | 0 | 0 | 0 | 0 | 0 | 0 |
| 20 | Sikkim | 0 | 0 | 0 | 0 | 0 | 0 |
| 21 | Tamilnadu | 0 | 0 | 0 | 0 | 0 | 0 |
| 22 | Telangana | 0 | 1 | 2 | 0 | 0 | 0 |
| 23 | Uttar Pradesh | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | Uttaranchal | 0 | 0 | 0 | 1 | 0 | 0 |
| 25 | West Bengal | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | | 51 | 15 | 210 | 43 | 9 | 5 |

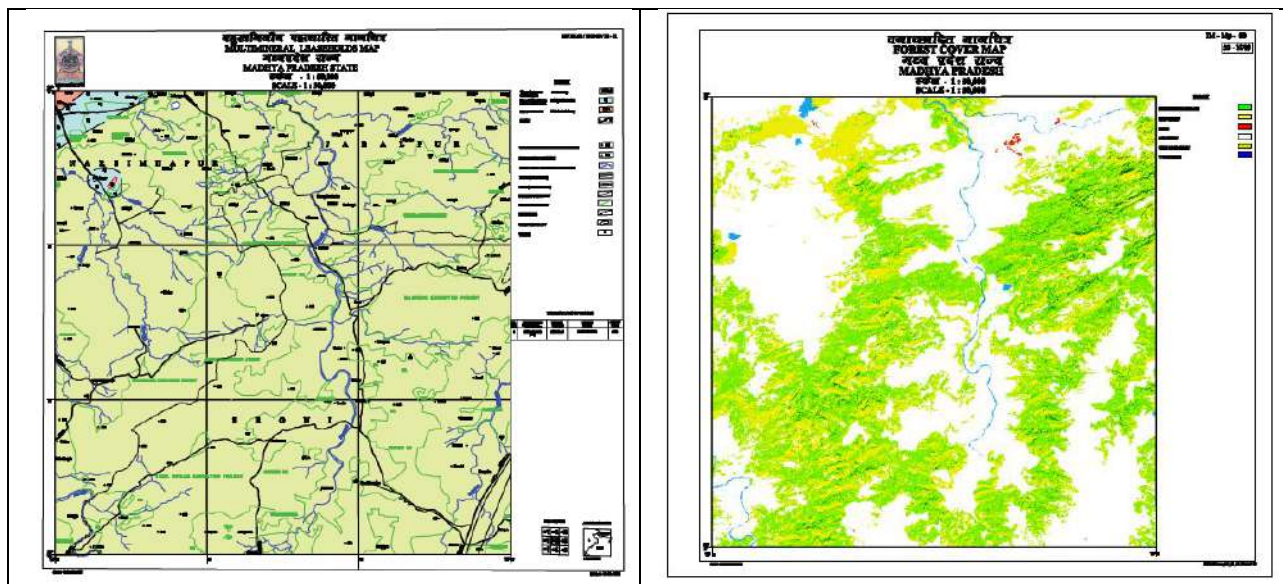
IBM monitors the progress of reconnaissance permits and prospecting licences.

5.3 Preparation of Mineral Maps

Preparation of Multi Mineral Leasehold Maps (MMLM) on GIS Platform

IBM has started preparing of Multi Mineral Leasehold Maps (MMLM) since 2002-03 using AutoCAD software and covered 24 mineral bearing states of India. MMLM is a map prepared on toposheet scale of 1:50,000 which shows disposition of mining leases of different minerals falling in a particular toposheet alongwith topographic features, regional geology and forest area. The maps thus are prepared for major minerals only which comes under the jurisdiction of IBM.

The preparation of Multi Mineral Leasehold Map requires various data sets viz. Lease map/ details from approved Mining Plan/ Scheme of Mining/Review of Mining Plans, Survey of India toposheets, Regional geology from published map of Geological Survey of India and Forest cover maps from Forest Survey of India. The required features were digitized using AutoCAD software and maps were prepared as shown below. As superimposing of Forest layer makes the map clumsy, the Forest overlay was being printed on transparent paper to overlay on this map.



MMLM map showing mining lease, topographic features and regional geology.

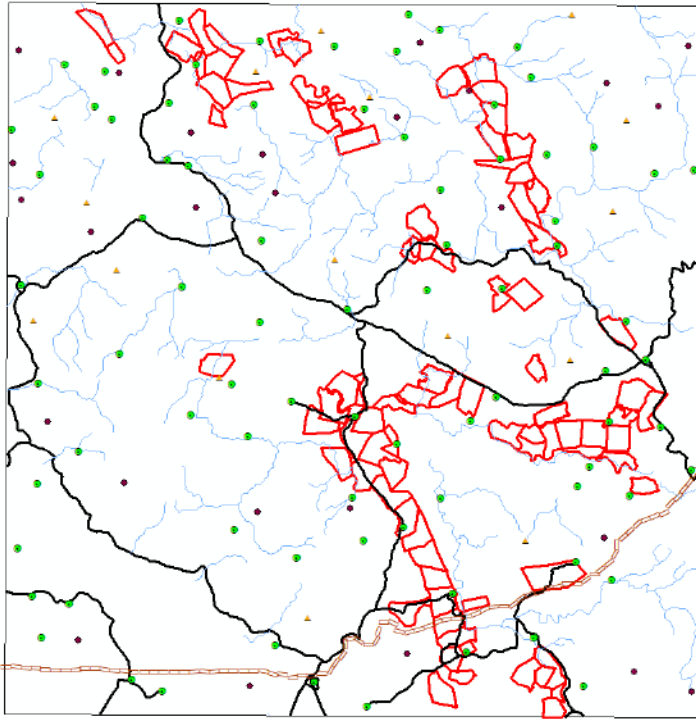
Forest overlay prepared using Autocad map.

The maps thus prepared using AutoCAD software is discrete in nature and is purely a cartographic work. The maps are not geo-referenced and have limited scope of analysis that means multiple toposheets have to be analysed **manually** to get the query based output.

A GIS and Remote sensing centre has been set up at IBM in 2018 and since September 2018, the transformation of the maps prepared using AutoCAD software is being carried out on GIS platform. Also, preparation of new maps is being carried out.

The already prepared AutoCAD map in .dwg file is being converted into .tiff file in ArcGIS. The .tiff file will be geo-referenced and rectifying it by assigning spatial reference of WGS 1984 datum. Then the rectified .tiff file will be projected in UTM zone of WGS 1984. The UTM zone Viz. 43N, 44N, etc. will be assigned as per the geo-coordinates of the .tiff file. Thus the projected .tiff file is now ready for digitization. Likewise, New toposheets are being scanned in .tiff format, then georeferenced in WGS 1984 datum and then projected in UTM zone.

For digitization, Geodatabase (GDB) is required to be created in ArcGIS. As many numbers of toposheets have to be digitized in a state, a GDB of each state is being created, in which Feature Dataset as per UTM zone of the state is created. Then separate feature class (layer) is created in Feature Dataset for each distinct feature to be digitized from the .tiff file. The feature class is created as Point, Line and Polygon. Then Digitization of different features in Point, Line and Polygon layers from projected .tiff file in corresponding GDB is done. Thus all the toposheet features and ML boundary is being digitized in different layers. Then ML boundary layer is attached with ML details available in excel file. Thus with each ML boundary, its details will be available.



Digitized map in ArcGIS with toposheet features and ML boundary of Goa State.

| S.No | District | Area Code | Mine Length | Mine Area | Mine Code | State | District | Mine Name | Mine Name | Owner | PVT/PSD | Category | Type | Area | Area Forest | Area Non-Forest | Mine Status | Capable Res |
|------|----------|-----------|--------------|----------------|-----------|-------|-----------|--|---|-------|---------|-----------|---------|---------|-------------|------------------------|-------------|-------------|
| 1 | Polygons | GD-A201 | 4846.599750 | 82679.024593 | GD-A201 | Goa | North Goa | Urnasa Damjer | Urnasa Limited | PVT | AFM | Open/cast | 38.4472 | 0 | 38.4472 | Flex Working & Renewed | Non-Captive | |
| 2 | Polygons | GD-A204 | 4.188.506200 | 89.979.571719 | GD-A204 | Goa | North Goa | Nicknau (Mandartaga) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 99.2959 | 0 | 99.2959 | Working | Non-Captive | |
| 3 | Polygons | GD-A205 | 3591.802794 | 498.827.247474 | GD-A205 | Goa | North Goa | Darga (Chandrapur Over Damraj) | Durga & Co Ltd | PVT | AFM | Open/cast | 74.1887 | 0 | 74.1887 | Working | Non-Captive | |
| 4 | Polygons | GD-A206 | 4284.802623 | 389794.802130 | GD-A206 | Goa | North Goa | Stokan (Yashwanter Damraj) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 99.7492 | 0 | 99.7492 | Working | Non-Captive | |
| 5 | Polygons | GD-A207 | 4281.081162 | 466508.121521 | GD-A207 | Goa | North Goa | Songar (Sangaram) | Changam & Co Ltd | PVT | AFM | Open/cast | 88.6821 | 0 | 88.6821 | Working | Non-Captive | |
| 6 | Polygons | GD-A208 | 5747.808926 | 501146.828670 | GD-A208 | Goa | North Goa | Vilgavem (Sula (Mandartaga & Aracoli)) | V. H. Sagar & Dns P-1142 | PVT | AFM | Open/cast | 93.845 | 0 | 93.845 | Working | Non-Captive | |
| 7 | Polygons | GD-A212 | 4764.805539 | 579215.824719 | GD-A212 | Goa | North Goa | Stokan (Vijaynagar) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 99.4482 | 0 | 99.4482 | Working | Non-Captive | |
| 8 | Polygons | GD-A213 | 4867.808891 | 386387.783971 | GD-A213 | Goa | North Goa | Ordnance (Sanir (Hortoban (Larva)) | Zenya & Company Private Limited | PVT | PSD | Open/cast | 72 | 0 | 72 | Flex Working | Non-Captive | |
| 9 | Polygons | GD-A214 | 4124.803680 | 821883.828670 | GD-A214 | Goa | North Goa | Carvelga | Seva Mining Const Ltd | PVT | AFM | Open/cast | 188 | 0 | 188 | Flex Working | Non-Captive | |
| 10 | Polygons | GD-A215 | 2681.802263 | 351979.879801 | GD-A215 | Goa | North Goa | Quella (Heli (Yashwanter Damraj)) | Bajajwan Mining Industries Pvt. Ltd | PVT | AFM | Open/cast | 73.86 | 0 | 73.86 | Flex Working & Renewed | Non-Captive | |
| 11 | Polygons | GD-A216 | 3818.872921 | 626591.877898 | GD-A216 | Goa | North Goa | Lakshminagar (De Oleno) | Lakshminagar | PVT | AFM | Open/cast | 39.2262 | 0 | 39.2262 | Working | Non-Captive | |
| 12 | Polygons | GD-A217 | 4828.874068 | 921338.848711 | GD-A217 | Goa | North Goa | Monte-de-Singra | Seva Mining Const Ltd | PVT | AFM | Open/cast | 89.8712 | 0 | 89.8712 | Flex Working & Renewed | Non-Captive | |
| 13 | Polygons | GD-A218 | 4185.888477 | 992228.825241 | GD-A218 | Goa | North Goa | Oliver Arvates | Heva's Loding (Heva's Lega (Heva Of Lega)) | PVT | AFM | Open/cast | 85.85 | 0 | 85.85 | Flex Working | Non-Captive | |
| 14 | Polygons | GD-A220 | 3170.824913 | 471608.828670 | GD-A220 | Goa | North Goa | Quartel | North Highway (Highway Lega (Heva Of Lega)) | PVT | AFM | Open/cast | 85.84 | 0 | 85.84 | Flex Working | Non-Captive | |
| 15 | Polygons | GD-A221 | 4888.818666 | 798261.801452 | GD-A221 | Goa | North Goa | Caravelgan (Caravelgan) | Kunda Highway (Kunda) | PVT | AFM | Open/cast | 79.1625 | 0 | 79.1625 | Working | Non-Captive | |
| 16 | Polygons | GD-A222 | 4137.877795 | 503581.848711 | GD-A222 | Goa | North Goa | Quartel (Tour (Tandil)) | Sucodade (Tandil (Tandil)) | PVT | AFM | Open/cast | 75.5884 | 0 | 75.5884 | Working | Non-Captive | |
| 17 | Polygons | GD-A224 | 2981.749922 | 475915.802623 | GD-A224 | Goa | North Goa | Quartel | Sucodade (Tandil (Tandil)) | PVT | AFM | Open/cast | 43.1213 | 25.8388 | 17.2825 | Working | Non-Captive | |
| 18 | Polygons | GD-A226 | 3888.802623 | 464827.802623 | GD-A226 | Goa | North Goa | Lem (Lem (Lem)) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 57.8827 | 0 | 57.8827 | Flex Working & Renewed | Non-Captive | |
| 19 | Polygons | GD-A228 | 4265.802794 | 512757.891931 | GD-A228 | Goa | North Goa | Lakshminagar (Lakshminagar) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 89.4815 | 0 | 89.4815 | Working | Non-Captive | |
| 20 | Polygons | GD-A230 | 1786.842188 | 294842.179711 | GD-A230 | Goa | North Goa | Quartel (Quartel) | Durga & Co Ltd | PVT | AFM | Open/cast | 57.562 | 0 | 57.562 | Working | Non-Captive | |
| 21 | Polygons | GD-A232 | 3627.752921 | 775884.828670 | GD-A232 | Goa | North Goa | Stokan (Yashwanter Damraj) | Urnasa Limited | PVT | AFM | Open/cast | 23.7144 | 0 | 23.7144 | Flex Working & Renewed | Non-Captive | |
| 22 | Polygons | GD-A233 | 4181.848711 | 598383.879801 | GD-A233 | Goa | North Goa | Vilgavem (Sula (Mandartaga & Aracoli)) | V. H. Sagar & Dns P-1142 | PVT | AFM | Open/cast | 94.88 | 44.88 | 50 | Working | Non-Captive | |
| 23 | Polygons | GD-A235 | 5688.802623 | 578823.802623 | GD-A235 | Goa | South Goa | Colgan (Colgan) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 83.2418 | 21.7439 | 61.4979 | Flex Working & Renewed | Non-Captive | |
| 24 | Polygons | GD-A237 | 2252.824913 | 302321.802623 | GD-A237 | Goa | North Goa | Vilgavem (Sula (Mandartaga & Aracoli)) | V. H. Sagar & Dns P-1142 | PVT | AFM | Open/cast | 45.2818 | 0 | 45.2818 | Working | Non-Captive | |
| 25 | Polygons | GD-A238 | 5357.83338 | 739228.868228 | GD-A238 | Goa | North Goa | Khand (Khand (Khand)) | Vilgavem (Sula (Mandartaga & Aracoli)) | PVT | AFM | Open/cast | 82.288 | 0 | 82.288 | Flex Working | Non-Captive | |
| 26 | Polygons | GD-A239 | 4266.802623 | 891111.802623 | GD-A239 | Goa | North Goa | Ordnance (Ordnance) | Seva Mining Const Ltd | PVT | AFM | Open/cast | 79.888 | 0 | 79.888 | Flex Working | Non-Captive | |
| 27 | Polygons | GD-A241 | 4534.802623 | 712142.879801 | GD-A241 | Goa | North Goa | Ordnance (Ordnance) | Sucodade (Tandil (Tandil)) | PVT | AFM | Open/cast | 38.5143 | 0 | 38.5143 | Working | Non-Captive | |
| 28 | Polygons | GD-A242 | 4138.8081 | 468823.802623 | GD-A242 | Goa | North Goa | Urnasa (Urnasa) | Urnasa Limited | PVT | AFM | Open/cast | 26.6877 | 0 | 26.6877 | Working | Non-Captive | |
| 29 | Polygons | GD-A246 | 3928.802623 | 775797.802623 | GD-A246 | Goa | North Goa | Urnasa (Urnasa) | D. B. Sarda & Sons Pvt. Ltd | PVT | AFM | Open/cast | 48.624 | 46.87 | 1.754 | Flex Working & Renewed | Non-Captive | |
| 30 | Polygons | GD-A248 | 4472.833921 | 542125.868228 | GD-A248 | Goa | North Goa | Mandartaga | Durga & Co Ltd | PVT | AFM | Open/cast | 78.214 | 0 | 78.214 | Flex Working & Renewed | Non-Captive | |
| 31 | Polygons | GD-A249 | 4243.802623 | 688811.802623 | GD-A249 | Goa | North Goa | Urnasa (Urnasa) | Urnasa Limited | PVT | AFM | Open/cast | 84.4 | 0 | 84.4 | Flex Working & Renewed | Non-Captive | |
| 32 | Polygons | GD-A249 | 4211.802623 | 628823.802623 | GD-A249 | Goa | North Goa | Urnasa (Urnasa) | Urnasa Limited | PVT | AFM | Open/cast | 83.8711 | 0 | 83.8711 | Working | Non-Captive | |
| 33 | Polygons | GD-A255 | 3425.848711 | 828123.802623 | GD-A255 | Goa | North Goa | Urnasa (Urnasa) | V. H. Sagar & Dns P-1142 | PVT | PSD | Open/cast | 82.1 | 0 | 82.1 | Flex Working | Non-Captive | |

The Attribute table of Mining leases showing mine details.

To prepare a map, all the layers viz. ML layer, different toposheet features, Geology layer and Forest layer can be superimposed on each other and different thematic maps can be prepared as per requirement.

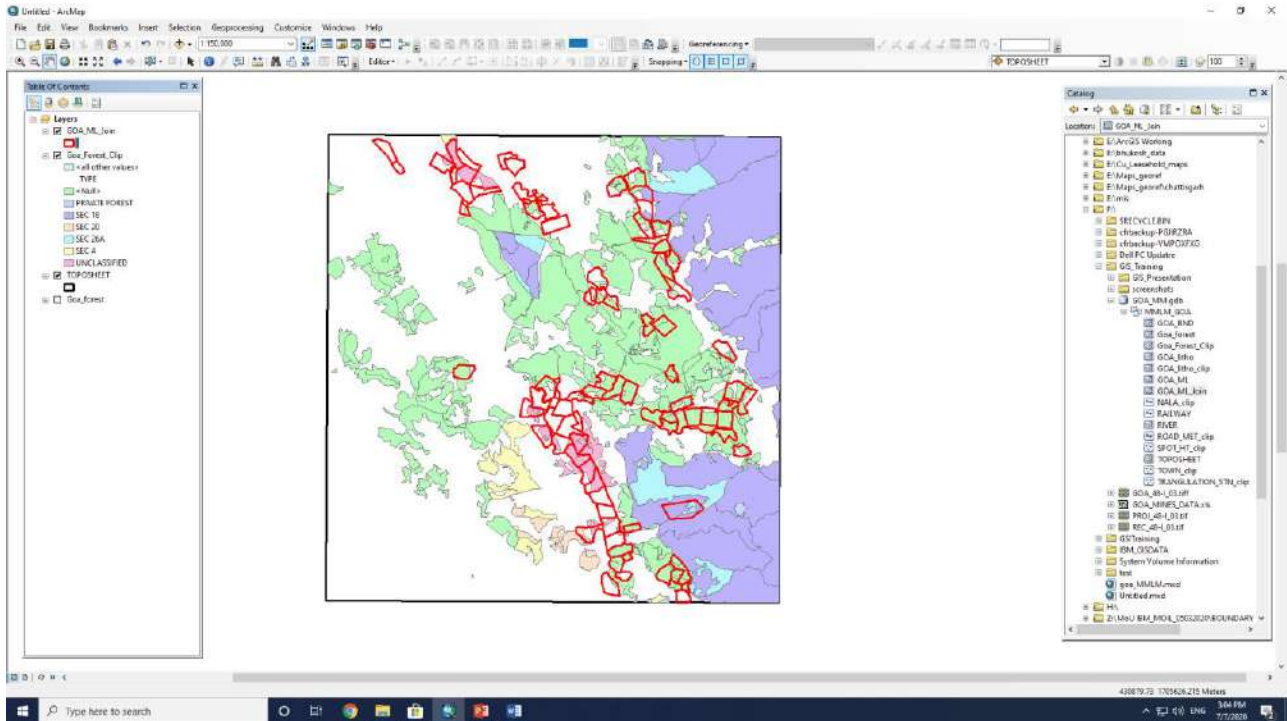


Figure showing ML layer with Forest layer.

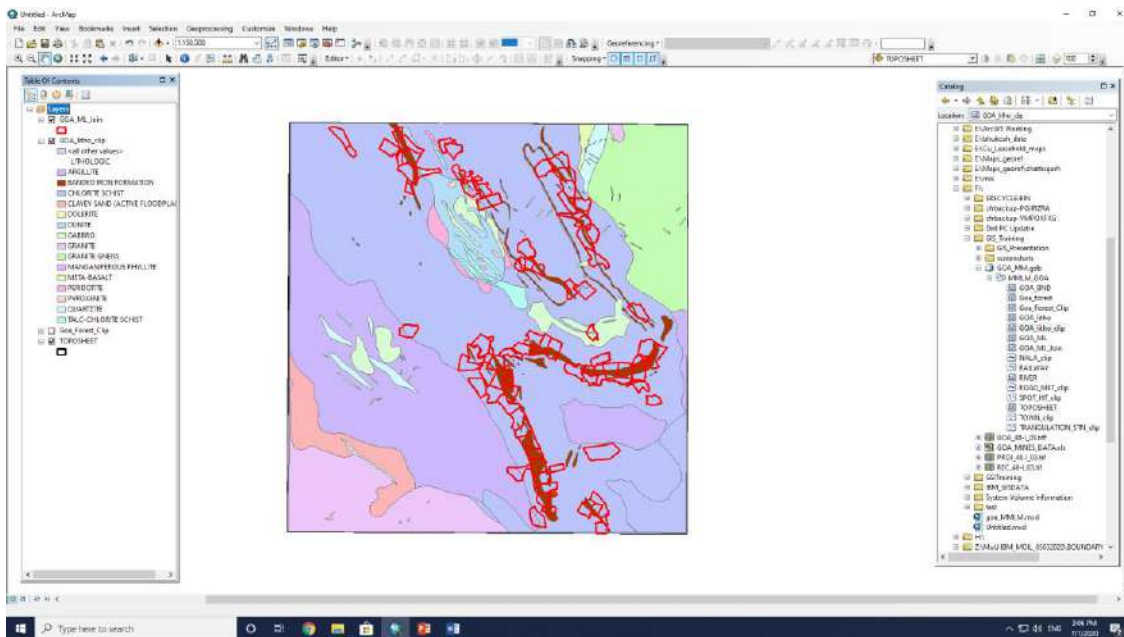


Figure showing ML layer with Geology layer.

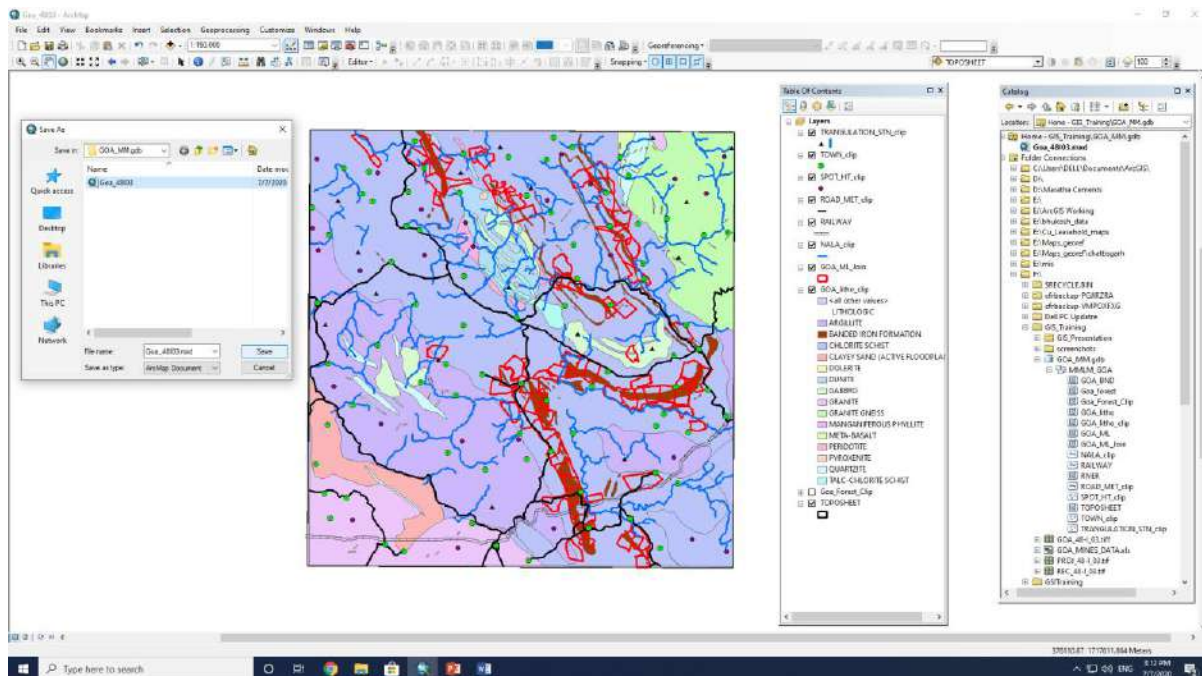


Figure showing ML layer with different topographic features & Geology layer

Geographic information system and Remote sensing centre was established in Indian Bureau of Mines which is functional since December 2018. Multi Mineral Lease hold maps are now updated on Arc GIS platform. During the year 2020-21, vectorisation of 134 top sheets and plotting of 869 mining leases is completed. Cumulatively up to 31st March, 2021, geo-referencing & projection of 539 Toposheets, vectorisation of 501 topo-sheets and plotting of 3531 mining leases is completed out of 3903 mining leases. Preparation of Excel database completed for 20 States. Preparation of attribute tables of all leases for Goa, Maharashtra, Andhra Pradesh, Gujarat, Karnataka, Jharkhand, Odisha, Chhattisgarh, Madhya Pradesh, Kerala, Rajasthan, Tamil Nadu, Bihar, Haryana, Himachal Pradesh, Jammu & Kashmir, North Eastern States, Uttarakhand, West Bengal and Telangana states are completed. Preparation for geology layers for corresponding states from Bhukosh data base of GSI is completed. All the maps viz lease boundaries; geology layer and toposheet layer have been integrated for the States of Goa and Maharashtra.

5.4 Mines Environment and Mineral Conservation (MEMC) week celebration

IBM plays a key role in fostering greater awareness and inculcates competition amongst the mine owners by organising Mines Environment and Mineral Conservation (MEMC) Week in different mining areas in the country towards the

protection and restoration of mine environment with sustainable development. The Indian Bureau of Mines celebrated Mines Environment and Mineral Conservation (MEMC) Week under the territorial jurisdictions of its various regional offices during the year 2020-21 for creation and propagation of awareness on mineral conservation and environmental protection in mining areas at very low profile at mine level by individual mines due to Covid 19 pandemic.

5.5 New Initiatives by MDR Division

5.5.1 Application of Drone Technology in mining

Furthering the efforts to utilize new technology, the Ministry of Mines has explored the applicability of the Unmanned Aerial Vehicles (UAV) Technology or commonly referred to as 'UAVs' for the mining sector.

The UAV based remote sensing is an emerging technology, increasingly used in agriculture, environmental, geology, mining, town planning and forestry applications and other applications. UAV's, typically operate at lower altitudes than manned aircraft and are also able to provide unique data with regard to spatial resolution angle of view. Compared to manned fixed-wing aircraft, typically used in aerial remote sensing, UAVs can provide lower ground sample distances (GSD) or higher spatial resolutions on the ground.

UAV technology can be extensively applied in the mining sector, i.e. for

- i. Carrying out overall survey of mine for monitoring the mining and allied activities in and around the mining area.
- ii. Lease boundary demarcation using the Ground Control Points (GCPs) and geo-referencing of the leases, monitoring of illegal mining activities etc.
- iii. Volumetric estimation of excavation, reclamation and periodical stock piles monitoring.
- iv. Change detection analysis over a period of time using previously surveyed data.
- v. Monitoring of land use and environmental impact in and around mining area.
- vi. Virtual inspection of mines for regulatory purpose.

- vii. Preparation of contour survey and survey map for filing to various regulatory agencies as well internal use of the industry.

The advantages of UAV Survey are

- (i) UAV Survey in mining can improve the overall efficiency of large mine site and quarry management by providing accurate and comprehensive data detailing site conditions in a very short time.
- (ii) The data accuracy and authenticity is better than the traditional survey.
- (iii) High resolution (cm level) data of UAV provides high accuracy and more precise volumetric measurements than traditional surveying methods.
- (iv) Stockpiles of irregular shape and exhibiting craters can be easily surveyed with great precision than using traditional methods.
- (v) UAV Survey is faster, less human intervention in mine and easily-repeatable mining surveys at low cost.
- (vi) Changes between two surveys can be tracked and highlighted automatically.
- (vii) UAV aerial images can be used to generate point clouds, digital surface models, digital terrain models and a 3D reconstruction of a mining site, including its stockpiles.
- (viii) Helps in creating a digital data base which can be used and retrieved at ease and compared.
- (ix) Data generated over a period of time can be stored in digital platform and the time series data can be compared. The data can be used for systematic and scientific mine closure planning, monitoring of reclamation, rehabilitation activities in lease area.

Keeping the above advantages of UAV Survey in view, it is proposed that UAV Surveys may be carried out periodically for each working mine along with the non-working mines and data is to be submitted to IBM which can be used for various purposes as mentioned above.

IBM has organized a meeting with senior officers of IBM and other stakeholders and is finalizing the modalities and guidelines for application of drones in mine regulation. This is a step taken by IBM for effective E-governance through satellite and remote sensing applications, as enshrined in NMP, 2019.

It was proposed to carry out a POC of drone survey in four mines; status of Survey is as follows:

1. DongriBuzurgManganese ore Mine of M/s MOIL Ltd.,Maharashtra : 1st UAV Survey completed during September 2020 and received the raw and processed output data and proposed to take-up 2nd UAV Survey was to be carried out during March 2021 which has been postponed due to Covid and DGPS survey data is awaited.

2. Maratha-I Limestone mine of M/s Ambuja Cements Ltd. Maharashtra :Drone survey proposed to be carried out from 25th March 2021, was postponed due to Covid.

3. Sonadiah Limestone Mine of M/s NuvacoVisatas Corp. Ltd., Chhattisgarh: carried out the 1st Survey in December 2020 and received the raw images and processed output data. IBM prepared a draft report on the UAV survey conducted.

4. Rawan-Jhipan Limestone Mine of M/s Ultratech Ltd., Chhattisgarh: M/s Ultratech Ltd has informed that, they conducted a UAV survey in Rawan-Jhipan Limestone Mine in February 2020 through a DGCA approved authorized Drone agency as per the SOP of IBM and submitted the survey data and processed data to IBM through hard disc. They requested to check the data, if the data is ok, they will be going to carryout the second UAV survey. The data received from M/s Ultratech is as per the SOP. Hence it was requested to M/s Ultratech to take-up the second pilot study of UAV Survey Rawan-Jhipan mine during last week of January 2021. Accordingly, M/s Ultratech has carried out the 2nd pilot study of UAV Survey during 29th January 2021 to 2nd February 2021. The output data is processed, LBM prepared a draft report on the UAV survey conducted.

Processing approvals to continue mining operations: IBM is entrusted with the work of effective regulation of mining related activities. Accordingly, it is considered as one of the exempted category, as per guidelines issued by Ministry of Home Affairs, time to time during lock down period. In order to ensure time bound disposal of works like processing approvals of mining plans/closure plans to continue mining operations specially for mining in those leases which are expiring between 31.03.2020 to 30.04.2020. IBM operated its offices with bare minimum strength and disposed of all such mining plans as per guidelines envisaged for ease of doing business.

Directions for Bank Guarantees submitted with FMCP: In the wake of countrywide lockdown due to Covid-19 (Corona virus) and due to non- verification of implementation of the approved proposals of Final Mine Closure Plan, field offices of IBM have been directed to write suitable letter to all such banks immediately for not releasing the Bank Guarantees which are expiring on 31.03.2020 until they receive any communication from IBM in this regard or up to 30th September, 2020. The Bank may release the bank guarantee after receipt of a written letter from the concerned Regional Controller of Mines, only after his ensuring the implementation of the provisions of Final Mine Closure Plan in all such cases.

5.5.2 Simplified Mining Plan Templates

As per the NITI Aayog recommendations simplified Mining Plan Template draft has been prepared by a committee constituted for the purpose. The same has been circulated to all Zonal / Regional offices and other stakeholders for suggestions and comments. NITI Aayog suggested to prepare the Mining Plan as a output-outcome document.

5.6 Mineral Beneficiation

Mineral beneficiation studies including mineralogical testing and chemical analysis intimately relates to both conservation and development of mineral resources. During the year 2020-21, 48 ore dressing investigations, **14608** chemical analysis, 2290 mineralogical examinations and 03 in-plant study were completed. The same is available on IBM website on link <https://ibm.gov.in/index.php?c=pages&m=index&id=232> .

Smt. Indira Ravindran, Director (MPD), IBM, retired from Government Service on 31st May, 2020.

5.6.1 Some of the salient achievements of ore dressing investigations are as follows:

5.6.1.1 IRON ORE:

Beneficiation studies on Composite iron ore sample from Gogte Minerals, Belgaum for M/s Infrastructure Logistics Pvt. Ltd., Maharashtra.

A composite iron ore sample received from Redi mine, Nimco mine and Patni pit, Vengurla, Sindhudurg Dist., for Gogte Minerals, Belgaum was received at Regional Mineral processing Laboratory, Bengaluru for beneficiation studies.

The composite sample assayed 58.15% Fe(T), 82.57% Fe₂O₃, 5.50% SiO₂, 3.36% Al₂O₃, 0.36% FeO, 1.11% Mn, 0.12% CaO, 0.06% MgO, 0.07% P, 0.12% S(T), 0.19% TiO₂, and 6.28% LOI. The specific gravity of the original sample was 3.97.

The sample consists major amounts of hematite, goethite/limonite, and minor amounts of clay/ gibbsite, quartz + feldspar. Pyrolusite/psilomelane and mica (sericite, biotite) are noticed in the sample. Martitised magnetite, chlorite, pyrite rutile, and tourmaline are present in traces amount.

Wet High Intensity Magnetic Separation tests were conducted on sample, stage grinding of +65 mesh followed by wet magnetic separation at 2000 Gauss and cleaning of the non-mag at 13000 Gauss yielded a composite magnetic concentrate (Mag-I and II) which assayed 62.95% Fe(T), 1.45% SiO₂, 1.19% Al₂O₃ and 5.84% LOI with Fe(T) recovery of 80.4% (Wt.% yield 74.3). The specific gravity of the composite concentrate was determined and found to be 4.31. This process route has the advantage of better recovery.

The nonmagnetic reject assayed 44.24% Fe(T) which is less than the threshold value prescribed for iron ore. This process route is recommended from the minerals conservation point of view.

Bench scale beneficiation Studies on a drill core iron ore sample from Alaghat West Block (G2 Stage Exploration), Sundergarh District, Odisha for Geological Survey of India (IBM/NGP/RI No....2219).

A Drill core iron ore sample (G2 stage exploration) from Alaghat West Block, Sundergarh district, Odisha was received through Geological Survey of India, Nagpur for bench scale beneficiation studies at the MMPL & PP, IBM, Nagpur.

The as received sample assayed 57.87% Fe(T), 4.15% Al₂O₃, 7.17% SiO₂, 0.10% CaO, 0.04% P₂O₅, 0.06% K₂O, 0.02% Na₂O, and 5.11% LOI with traces of MgO, TiO₂, and Mn.

The as received sample consists of major amount of hematite, subordinate amount of goethite/limonite, minor to very minor amounts of clay, quartz, gibbsite, and mica (muscovite, biotite) with traces of feldspar.

Beneficiation studies comprising of crushing and gravity separation techniques employing Jigging, Tabling and Multi- Gravity separation could yield a composite concentrate assaying 63.29% Fe(T), 2.06% Al₂O₃ and 3.27% SiO₂ with a total Fe recovery of 59.1% (Wt% yield: 53.6). The concentrate is suitable for use in iron and steel industry after agglomeration.

Pilot scale beneficiation studies on an Iron ore (BHQ) sample (Mine Reject) from Dongarbor iron ore mines, Rajnandgaon, Chattisgarh for M/s Sarda Energy and Minerals Pvt. Ltd, Raipur (IBM/NGP RI No. 2227).

A low grade iron ore Banded Hematite Quartzite (BHQ) sample (Mine Reject) was received at the Modern Mineral Processing Laboratory & Pilot Plant, IBM, Nagpur from M/S Sarda Energy and Minerals Pvt, Ltd, Chhattisgarh for carrying out Pilot scale beneficiation studies.

The objective of the study was to develop a suitable process flow sheet for obtaining a marketable grade iron concentrate and to generate optimized parameters required for commercial plant.

The as received sample assayed 33.5 % Fe (T), 49.7 % SiO₂, 1.1 % Al₂O₃, 0.17% CaO, 0.032% MgO, 0.011% TiO₂, 0.03% P, 0.083%Mn and 1.2 % LOI.

The lumps were having alternate bands of light (quartz) and dark (hematite) coloured bands. The thickness of bands varied from lump to lump. Mineralogical studies revealed that the sample consist major amounts of quartz and hematite with minor amounts of goethite/limonite and very minor amounts of magnetite/martitized magnetite and clay.

Detailed beneficiation studies were carried out on the sample employing different techniques like crushing, screening, grinding, gravity separation employing spiral, and wet high intensity magnetic separation etc. The beneficiation process route evolved for the up gradation of Fe(T) and reduction of Silica content could yield a

- (i) A combined concentrate comprising of cleaner spiral concentrate and scavenger spiral concentrate (scv) assaying 61.0% Fe (T), 11.1% SiO₂, 0.7 %Al₂O₃ and 0.4 % LOI with Wt% yield of 26.1% and 47.6% Fe (T) recovery.
- (ii) A sub grade iron concentrate i.e Magnetic fraction obtained by wet magnetic separation of spiral middling (scv) and spiral tails (scv) assaying 43.21 % Fe (T), 36.02 % SiO₂, 0.95 % Al₂O₃, 0.94 % LOI with wt% yield of 23.5 and 30.5% Fe (T) recovery.
- (iii) A combined reject fraction comprising of jig reject, cleaner spiral middling and non-mag fraction assaying 14.47 % Fe (T), 75.98 % SiO₂, 1.39 % Al₂O₃, 1.52 % LOI with wt% yield of 50.4 and 21.9 % Fe (T) recovery.

The concentrate produced from the above developed process has very low alumina content and may find application in pellet making, after suitably blending.

5.6.1.2 COPPER ORE:

Bench scale beneficiation studies on Copper sample from Mundiawas block, Dist. Alwar, Rajasthan for Geological Survey of India, Western Region, Jaipur (IBM/AJM/R.I. No. 645).

A low grade Copper ore bearing sample from Mundiawas Block, District-Alwar collected by GSI as a part of G-2 exploration was received at Regional Mineral Processing Laboratory, IBM, Ajmer for bench scale beneficiation studies. The objective of the investigation was to evolve a process for producing a Copper concentrate assaying more than 18% Cu with maximum possible recovery.

The “as received” sample assayed 0.25% Cu; 44.86% SiO₂, 5.97% Al₂O₃, 1.82% S(T), 5.23% Fe(T), 12.76% CaO; 9.12% MgO, 0.42% Na₂O, 1.76% K₂O; 0.52% TiO₂, 0.04% MnO, 9.22% LOI with 56.89% Acid insoluble

Mineralogically, Chalcopyrite is the main copper bearing mineral present in trace amount. Quartz is present in predominant amount whereas wollastonite is present in major amount. Carbonates (Calcite and dolomite) and mica (Biotite and muscovite) are present in subordinate amount. Pyrite, pyrrhotite, arsenopyrite, iron oxides (Hematite, goethite, limonite and magnetite), rutile, graphite,

amphibole (Tremolite and actinolite) and tourmaline are present in very minor to trace amount.

By adopting flotation test at optimized conditions yielded a Copper concentrate assaying 21.36% Cu with a Cu recovery of 70.6% (Wt.% yield was 0.8)

The batch scale beneficiation results indicate that, although the “as received sample” was a low grade (0.25% Cu), it is amenable to beneficiation, and it is possible to produce a Copper concentrate suitable for Copper smelter.

Bench scale beneficiation studies on Copper bearing sample from Northern part of Toda Ramliyas block , Sikar, Rajasthan for M/s Geological Survey of India, Western Region, Jaipur (IBM/AJM/R.I. No. 648).

A Copper bearing sample from Northern part of Toda Ramliyas block, District-Sikar, collected by GSI as a part of G-2 exploration was received at Regional Mineral Processing Laboratory, Indian Bureau of Mines, Ajmer for bench scale beneficiation studies. The aim of bench scale beneficiation study was to evolve a process flow sheet producing a copper concentrate assaying more than 18% cu with maximum possible recovery.

The “as received” sample assayed 0.40% Cu, 5.10% Fe(T), 42.98% SiO₂, 9.76%Al₂O₃, 11.51%CaO, 9.55% MgO, 0.18%S(T), 0.63%TiO₂, 2.38% Na₂O, 1.26% K₂O,12.11% LOI and 58.86% AI (Acid Insolubles).

Chalcocite, bornite, chalcopyrite and covellite are the main copper bearing minerals present in very minor to trace amount in the sample. Mica (Biotite, chlorite and muscovite), quartz and carbonates (Calcite and dolomite) are present in major amount whereas feldspar is present in subordinate amount. Amphibole (Tremolite and actinolite), tourmaline, garnet, pyrite, pyrrhotite, arsenopyrite, iron oxides (Hematite, goethite, limonite and magnetite) and rutile are present in very minor to trace amount.

Bench scale beneficiation studies using froth flotation process could yield a copper concentrate assaying 40.38% Cu, with 80.30% copper recovery (Wt% yield 0.80). The composite concentrate (concentrate + second cleaner tails)

assayed 27.18% Cu with an enhanced Cu recovery of 87.81% also meets the specification of smelter plant.

Bench scale beneficiation studies on Copper bearing sample from RJBN (Lode I), Bokri North Block of Jhunjhunu, Rajasthan for Geological Survey of India, Western Region, Jaipur, Rajasthan (IBM / AJM / R.I. No. 649).

A Copper bearing sample from RJBN (Lode-1), Bokri North Block of Jhunjhunu District, collected by GSI as a part of G-2 stage exploration was received at Regional Mineral Processing Laboratory, Indian Bureau of Mines, Ajmer for bench scale beneficiation studies. The aim of bench scale beneficiation study was to evolve a process flow sheet producing a copper concentrate suitable for smelter grade with maximum possible recovery.

The sample assayed 0.27% Cu, 3.49 % Fe(T), 59.81 % SiO₂, 8.99% Al₂O₃, , 9.23% CaO, 5.17% MgO, 0.46% S(T), 0.51% TiO₂, 6.71% LOI, 0.03% Mn , Traces of Na₂O and K₂O.

Chalcopyrite, Covellite and Chalcocite occurs as extremely fine to medium sized grain (20µm to 275 µm), interlocked as well as on tricately associated with carbonates, silicate gangue and other sulphide and oxides minerals. Most of the chalcopyrite grains carry extremely fine grained inclusions of iron oxides, carbonates and silicate gangue. Chalcopyrite grains are also present as inclusions within the silicate and carbonates gangue.

By employing froth flotation process yielded a copper concentrate assayed 19.69% Cu, with 85.60% copper recovery (Wt% yield 1.18). This concentrate meets the copper grade required for smelter plant. The final concentrate assayed 19.63% Cu, 20.59 % Fe(T), 20.10 % SiO₂, 6.67% Al₂O₃, , 0.42% CaO, 0.33% MgO, 21.45% S(T), 0.92% TiO₂, 26.69 % Al, 0.01% Mn , 0.29% Na₂O and 0.78% K₂O.

The final result confirms that, although the Copper bearing sample from RJBN (Lode-1), Bokri North Block of Jhunjhunu District, collected by GSI as a part of G-2 exploration deposit is a very low grade, the sample is amenable to beneficiation.

Bench scale beneficiation studies on copper bearing sample from RJBN (Lode II) ,Bokri North Block of Jhunjhunu, Rajasthan for Geological Survey of India, Western Region, Jaipur, Rajasthan (IBM / AJM / R.I. No. 650).

A Copper bearing sample from RJBN (Lode-II), Bokri North Block of Jhunjhunu District, Rajasthan collected by GSI as a part of G-2 exploration was received at Regional Mineral Processing Laboratory, Indian Bureau of Mines, Ajmer for bench scale beneficiation studies. The aim of bench scale beneficiation study was to evolve a process flow sheet producing a copper concentrate assaying more than 18% Cu with maximum possible recovery.

The scope of the present bench scale beneficiation study comprised of characterization, amenability of sample to Froth flotation process.

The “as received” sample assayed 0.25% Cu, 3.39 % Fe(T), 70.33 % SiO₂, 7.12% Al₂O₃, , 7.17% CaO, 5.04% MgO, 0.42% S(T), 0.40% TiO₂, 3.82% LOI, 82.87% Al, 0.02% Mn , Traces of Na₂O and K₂O,.

Chalcopyrite, Covellite and Chalcocite occurs as extremely fine to fine grained (20 µm to 150 µm) anhedral crystals, finely associated with carbonates, silicate gangue and other sulphide and oxides minerals. Most of the chalcopyrite grains carry extremely fine grained inclusions of iron oxides, carbonates and silicate gangue. At places, chalcopyrite is interlocked with carbonates, silicate gangue and other sulphide minerals. The cracks and fractures of chalcopyrite grains are filled with carbonates and silicate gangue. Chalcopyrite grains also present as inclusions within the grains silicate and carbonates gangue.

Bench scale beneficiation studies using froth flotation process could yield a copper concentrate assaying 19.31% Cu, with 88.75% copper recovery (Wt% yield 1.15). The final concentrate assayed 19.31% Cu, 25.34 % Fe(T), 18.46 % SiO₂, 6.87% Al₂O₃, , 1.73% CaO, 0.16% MgO, 23.43% S(T), 0.79% TiO₂,23.53 % Al, 0.01% Mn , 0.50% Na₂O and 0.67% K₂O. This concentrate having good copper grade and recovery which meets the copper grade required for smelter plant.

Bench scale beneficiation studies on a Copper ore sample from Lingsurur taluk , Raichur Dt., Karnataka for Geological Survey of India, Southern Region, Bengaluru (IBM/BNG/RI No. 897)

A Copper ore sample from Machanur central block, Lingsurur Taluk, Raichur district, Karnataka was collected by GSI as a part of G-2 exploration and received at Regional Mineral Processing Laboratory, Indian Bureau of Mines, Bengaluru for bench scale beneficiation studies. The aim of bench scale beneficiation study was to evolve a process for producing a copper concentrate assaying more than 18% Cu with <15% Acid insoluble of maximum possible recovery.

The as received sample assayed 1.06% Cu, 2.90%, Fe(T), 78.06% SiO₂ and 85.28% Acid insoluble. Chalcopyrite, pyrite, chalcocite, covellite, bornite, cuprite and native copper are copper bearing ore minerals and occur in trace amount. The sample consists of quartz and feldspar in major amount whereas carbonate is present in sub-ordinate amount. Chlorite is present in minor amount. Goethite + limonite, hematite, magnetite, zircon and mica is present in very minor to trace amount.

Froth flotation studies on as received sample ground to all -200 mesh size could yield a copper concentrate assaying 29.84% Cu, 15.41% SiO₂, 19.89% Acid insoluble with 75.6% copper recovery (Wt.% yield : 3.0).

The sample is amenable to beneficiation.

5.6.1.3 MANGANESE ORE:

Bench scale beneficiation studies on a Manganese ore sample from Cheepurupalli, Vizianagaram District, Andhra Pradesh for Geological Survey of India, Andhra Pradesh (IBM / BNG/ R. I. NO. ...881)

A Manganese ore sample from Cheepurupalli, Vizianagaram District, Andhra Pradesh was received at Regional Mineral Processing Laboratory, IBM, Bangalore for bench scale beneficiation studies. The objective of the investigation was to evolve a process flow sheet for up gradation and recovery of Manganese content present in the sample.

The “as received” sample assayed 23.66% Mn, 10.41% Fe(T), 22.65% SiO₂, 8.00% Al₂O₃, 1.27% TiO₂, 0.3% P, 3.84% CaO, 0.04% MgO; 11.25% LOI and of S(T) in trace amount.

The sample consists of major amounts of silicate minerals [clay, altered silicates, garnet, quartz, feldspar] with sub-ordinate amounts of psilomelane/ cryptomelane, pyrolusite and other manganese minerals [braunite/bixbyite, franklinite/ hollandite and jacobsonite]. Goethite/ limonite are present in minor amounts. Rutile/ Ilmenite, barite, mica, chlorite, apatite, pyrite and carbonate are present in very minor to trace amounts.

Gravity separation employing tabling at -72 mesh size followed by electrostatic separation of the gravity separation products aides to refine the Manganese concentrate. Gravity tails were subjected to reverse flotation to recover Mn values from tails.

The concentrate-I was obtained by combining +150# conductor and middling and -150# conductor and middling of table concentrate and -400# of table concentrate and table middling which assayed 47.02% Mn with 39.0% Mn recovery (Wt.% yield ; 21.01).

The concentrate-II was obtained by combining -150# non-conductor of table concentrate, +150# conductor and middling of table middling, -150# conductor of table middling and non-float reverse flotation concentrate of combined table tails and slimes which assayed 33.55% Mn with 44.0% Mn recovery (Wt.% yield ; 33.18).

The composite concentrate was obtained by combining concentrate-I and concentrate-II which assayed 38.78% Mn with 83.0% Mn recovery (Wt.% yield ; 54.19).

The combined reject was obtained by combining -150# non-conductor table concentrate, +150# non-conductor of table middling, -150# middling and non-conductor of table middling and combined reverse flotation float which assayed 9.39% Mn with Mn distribution of 17.0% (Wt% reject :45.81). The combined reject assay is well within the threshold value limit (10% Mn).

The sample is amenable to beneficiation, and the manganese concentrate produced may find suitable industrial use.

5.6.1.4 GRAPHITE ORE :

Bench scale beneficiation studies on a low grade Graphite ore G-2 level exploration, Drill core sample from Golighat block, Betul district., Madhya Pradesh for Geological Survey of India, Bhopal (IBM/NGP/RI No. 2226).

A low grade graphite ore drill core sample from Betul District, Madhya Pradesh was received from Geological Survey of India, at the Modern Mineral Processing Laboratory & Pilot Plant, Indian Bureau of Mines, Nagpur for conducting bench scale beneficiation studies. The objective of the investigation was to explore the possibility of producing a graphite concentrate suitable for industrial use and recovery of Vanadium values by pre-concentrating vanadium bearing minerals asco-product.

The as received sample assayed 6.25% FC, 4.76% VM, 0.49% Moisture and 88.5% ash. The ash analysis of as received sample is 63.5% SiO₂, 10.45% Al₂O₃, 4.98 % Fe₂O₃, 2.09% CaO, 1.61% MgO, 0.93% Na₂O, 3.41% K₂O, 10.76% LOI, and 0.154% V₂O₅ respectively.

The sample consists of major amounts of quartz with subordinate amounts of feldspar (orthoclase, microcline, plagioclase), graphite and mica (muscovite, biotite) Carbonate (calcite) and pyrite are present in minor amounts. Amphibole, pyroxene, hematite, goethite/limonite, pyrophyllite, garnet, chlorite, REE (Monazite), chalcocite/covellite, chalcopyrite, galena and sphalerite minerals are noticed in very minor to trace amounts in the sample.

Detailed beneficiation studies comprising grinding, screening, magnetic separation, froth flotation, gravity separation etc. were employed by varying different parameters for concentration of graphite and vanadium bearing minerals. The beneficiation process route evolved could yield

- (i) A composite graphite concentrate (4th cleaner conc. + 4th cleaner tails) i.e. 3rd cleaner concentrate as assayed 57.93%FC, 39.1%Ash, 2.48%VM, 0.47%Moisture

with FC recovery of 76.4% and wt% yield 8.6%. The concentrate may find suitable application in different industries.

- (iv) A Vanadium bearing mineral concentrate as a co-product assaying 0.39% V₂O₅, 1.23 % FC, 92.86% Ash, 5.03%, VM, 0.88% Moisture with V₂O₅ recovery of 17.7% and wt% yield 6.6. This concentrate may be utilized for vanadium extraction.

5.6.2 Beneficiation studies of Mineral deposits set for auction

As per the amended Act, all exploration reports need to be made UNFC (2009) compliant before auctioning of mineral blocks, for which mineral beneficiation study is an important aspect. The exploration indicates only the geological aspect. Beneficiation study indicates the viability of the block for commercial operations in view of feasibility and economics. Thus, beneficiation study has paramount and crucial role for the development of mineral deposits in India.

Since the year 2016, IBM has been carrying out laboratory scale beneficiation studies on all G2 Level of exploration samples of GSI and MECL. Till date studies on total 85 nos. G2 Level samples of GSI and 6 nos. G2/G1 level sample of MECL have been completed by IBM and reports were submitted. Out of which 07 mineral blocks comprising gold ore, graphite, copper and iron ores have been successfully auctioned. About 06 (six) more blocks are ready for auctioning and remaining blocks are under preparation.

5.7 National Mineral Inventory (NMI)

The NMI is based on UNFC system which is being used for making various decisions in the mining and exploration sectors by the domestic/foreign investors. Such a system has wide ramifications of use in different kinds of decision making and policy formulation concerning not only minerals but allied fields as well. NMI provides valuable database that enables planning, development and judicious management of the country's mineral resources. IBM in consonance with the contemporary demands in the Mineral & Mining Sector and in accordance with its mandate and functioning role as National Mineral Information Repository elicits cooperation & support from all Agencies engaged in different stages of

exploration, i.e., reconnaissance, prospecting and mining, in collecting/collating data which after due process of analysis & vetting are woven into NMI database.

5.7.1 National Conference on National Mineral Inventory (NMI) (As on 01.04.2020)

IBM organised a National Conference on NMI (As on 01.04.2020) at its Headquarters in Nagpur on 23.01.2020 as a consultative process with all Stakeholders involved in the updation process and with the guided principle to assimilate all information/opinions/views/nuances that which could be integrated to enhance the comprehensiveness of the title “National Mineral Inventory (As on 01.04.2020)”.

During the year, data collection by literature survey such as referring of GSI reports, Annual reports of Exploration Agencies etc. through internet/e-office was in progress. Cumulatively 3546 NMI data sheets of Private Leasehold deposits updated during the year 2020-21 up to March, 2021 plus additionally 187 sheets for new deposits have been prepared. Processing, scrutiny, verification and finalization of 1300 deposit- wise inventories completed. Synthesis of inventories of leasehold private with freehold and leasehold public sector data completed for 2700 deposits. Data entry, verification for computerization of inventories carried out for 1311 deposits.

5.8 Statistical Publications

IBM disseminates statistical information on mines, minerals, metals and mineral-based industries through various publications. Information on mineral production, stocks, dispatches, employment, inputs in mining, mining machinery and related matters received from the mine owners on statutory basis under the MCDR, 1988 and ancillary statistics on metals production, mineral trade and market prices of minerals, revenue from the mining sector, rent, royalty and cess on minerals, etc from other agencies is compiled regularly by IBM.

Monthly Statistics of Mineral Production (MSMP)

This monthly publication contains information on Index of Mineral Production, state-wise mineral production and value, average sale price of minerals by grades etc.

Statistical Profiles of Minerals (Annual)

This publication gives a bird's eye view of most of the vital aspects of major minerals (except fuels and atomic minerals) produced in India. It contains information on production, value and stocks of minerals, labour employment and number of reporting mines for the current year. Besides, data on reserves, mining leases, life index of mineral resources, export and import of minerals are incorporated for the latest available year.

Indian Mineral Industry at a Glance (Annual)

This publication provides time series data on production of minerals, metals and mineral based products, consumption of minerals, labour employment and external trade. In addition, information on mining machinery, consumption of explosives, mining leases and afforestation in metalliferous mines are also presented for the latest year.

The statistical publications released during the year 2020-21 include Statistical profiles of minerals 2018-19, Monthly Statistics of Mineral Production (MSMP) up to March 2020, Indian Mineral Industry at a Glance 2016-17 and 2017-18 issues.

5.9 Consultancy Service

IBM provides technical consultancy services on prescribed charges for geological appraisals, survey of the areas, preparation of feasibility study reports, environment impact assessment and environment management plan, selection of suitable mining equipment etc. However, due to severe manpower constraints in the division no fresh consultancy assignment was taken up in the F.Y. 2020-21.

5.9.1 Regional Mineral Development Study (RMDS)

I. RMDS/ Research Oriented Study for effective utilization of Iron ore fines/dumps/slimes in NMDC, Bailadila Sector Seven MLs (Chhattisgarh) subject to the provision of required officials for the study concerned.

Literature Survey and review of latest approved mining plans (MPs) and Review of Mining Plans (RMPs) of 5(five) MLs are in progress. Field visit to mines pending on

account of Covid-19 and studies are carried forward for the next year. Also in the year 2020-21, literature survey & data collection for undertaking the same study for the mines of Bhilai Steel Plant (BSP) of Chattisgarh State were also initiated. However, during 2020-21, due to very thin manpower in the division (only 8 officials) and frequent lockdown due to covid pandemic, the pace of work became very slow.

5.10 Technical Publications

IBM brings out technical publications relating to mines and minerals, mineral-based industries, trade, beneficiation, R&D activities, etc.

Indian Mineral Year Book (IMYB) is available at IBM website <https://ibm.gov.in/index.php?c=pages&m=index&id=107&mid=18654>. IMYB is a flagship publication of IBM and bring out in three (3) volumes. It consists of Part I having as many as 11 General Chapters, Part II consists of 18 Reviews on metals and alloys and Part III consists of 30 mineral reviews. This publication covers information on minerals and mineral-based commodities, their development, production, resources/reserves, consumption, trade and policy. It also includes world scenario. IMYB provides a status report of Mining and Mineral Industry in India on an annual basis. This publication has wide readership-both National and International.

The IMYB, 2019 (data 2018-19), consisting total 60 general/metals & alloys/mineral reviews were prepared, edited, finalized and IMYB, 2019 (Advance Release) was uploaded on IBM, website.

For IMYB, 2020 (data 2019-20) about 10,625 letters/ questionnaires/ e-mails were issued for capturing of data. Nearly 1103 (including Form O, N and questionnaires) receipts from various mineral-based industries, Central/State Government departments, Central/State Undertakings, National Laboratories etc. were received during the period under review. Preparation of IMYB 2020 was taken up for three separate volumes, viz. Volume-I for General Reviews, Volume-II for Metals & Alloys and Volume-III for Mineral Reviews. Preparation of reviews is under progress.

BULLETIN OF MINERAL INFORMATION (BMI)

Bulletin of Mineral Information (BMI) is a half yearly Bulletin, published by IBM, a sole publication in the country of its nature, which provides information to mine owners and mining industry on – court decision concerning mineral legislation, trade policy on minerals & metals; trends in mining lease and prospecting licenses along with R/P granted for mineral based industries in the country; the month wise production of various mineral based products and also high lights status of mineral and mining industries both in domestic & foreign sector.

In a nutshell, this publication provides concise & synthesized knowledge and information on mining of various metallic / industrial minerals of the country, explored through its respective mines. Bulletin on Mineral Information Oct.19 to Mar.20 & April 2020 to September, 2020 issues released during the year.

BULLETIN OF MINING LEASES AND PROSPECTING LICENCES.

The Bulletin of Mining Leases and Prospecting Licenses contains information on mining leases, prospecting Licenses as well as reconnaissance permits. The bulletin provides the distribution pattern of mining leases spread over in as many as 23 states with its break-ups into state-wise, district-wise, mineral-wise and sector-wise (Public & private) information demarcating high, medium and low mineral potential bearing districts. Exhaustive information on mining leases abridged concisely for easy assimilation will suit the convenience of readers/entrepreneurs or policy makers. Bulletin on Mining Lease and Prospecting Licenses 2019 was released during the year.

5.11 Training

The Training Centre of IBM is headed by the Officer In-charge (Training) / Regional Controller of Mines. It is under the overall supervision of Controller of Mines (Planning & Co-ordination). It conducts in-house training programmes for its employees, state govt officers people from North-Eastern States and persons engaged in mining industry including overseas with the objective to provide them adequate orientation and updation in their fields of work. During the year 2020-21, 08 training programmes have been organized by IBM through VC in the backdrop of COVID pandemic. in which a total of 292 IBM personnel participated.

IBM makes its presence in the meetings as organized by GSI/ MECL for its active participation, towards synergic approach. Further, 22 officers of IBM have participated in an e-training programme on Remote Sensing and GIS applications conducted by GSITI from 01.06.2020 to 13.06.2020. Besides, 2 officers from IBM attended e-training programme on GIS and Remote sensing application organized by RTI, GSI WR Jaipur from 19.10.2020 to 23.10.2020. Further, 8 officials of IBM attended two days' training programme on "Preventive Vigilance" from 8th to 9th December, 2020 conducted by MECL under IBM_MECL Synergy

5.11.1 Digitization of training courses: As per the directions of Ministry of Mines, IBM has initiated the process of digitization of training courses with different modules for offering the online courses, through iGOT platform. Six online courses have been identified covering 23 modules. So far 19 PPTs in respect of 4 courses have been received and for PPTs of remaining two courses, follow up is being made. On trial basis, two sample videos has been prepared with the help of local vendors. Since the preparation of videos is to be accomplished by vendor provisioning through GeM, request has been raised through GeM portal for inclusion of videography of lectures as new services in GeM. As soon as the service provider will be available, videography of lectures will be taken up. Follow up is being made in the issue.

5.11.2.1 E-Training Programme on Online Filing and Scrutiny of Monthly/Annual Returns, Retrieval and Dissemination of Data, Calculation of ASP

The Training Centre, IBM, Nagpur, organised an E-Training Programme on "Online Filing and Scrutiny of Monthly/Annual Returns, Retrieval and Dissemination of Data, Calculation of ASP" through Video Conferencing, at Nagpur from 19 to 21st August, 2020 under the direction of Shri P.N. Sharma, Chief Controller of Mines I/c, IBM. This training programme was conducted through VC in the backdrop of COVID pandemic.

This Training Programme was the 615th programme organized by the Training Centre, IBM and 1st of this year. A total of 33 IBM officers from all Zonal/Regional offices of MDR Division participated in this programme. The training was conducted in 6 sessions in three days covering various topics, such as

1. Statutory Provisions in Mineral Concession Rules and Mineral Conservation and Development Rules, 2017 for calculation of Average Sale Price, by Dr P.K. Jain, Chief Mineral Economist, ME Division & I/c MMS Division,
2. Annual & Monthly Returns Form for Traders/End Users/ Stockists under Rule 45 of MCDR 2017 : Scrutiny & General Discrepancies observed, By Shri Gaurav Sharma, Deputy Mineral Economist,
3. Processing of Monthly & Annual returns (F&G series): Concepts & common scrutiny points and Retrieval & dissemination of data through various publications By Ms. Noushida N.A., Director (S), MMS Division and Mrs Amitha M., Deputy Mineral Economist (S), MMS Division,
4. Compilation of Average Sale Price By Mrs Praseeja, Director (S), MMS Division.

The Training sessions were followed by a lively Group Discussion Session with Dr P K Jain, CME & I/c MMS Division and other faculties. All the queries of the participants were patiently replied by the faculties to the satisfaction of participants. Dr P.K. Jain, CME, in his address to the participants requested them to be vigilant in timely scrutiny of returns. Shri U.L. Gupta, SMG & In-charge Training Centre, thanked all the faculties and participants for their enthusiasm in the training programme. Mrs Praseeja, Director (S), MMS Division, was the Course Director for the programme while Shri Madan Kalwit, AME, Training Centre worked as Course Co-ordinator. Shri Yogesh Mathare of NIC provided the technical support for the Video Conferencing.



E-Training Programme on Online Filing and Scrutiny of Monthly/Annual Returns, Retrieval and Dissemination of Data, Calculation of ASP

5.11.2.2 e-Training Programme – “E-Procurement Through Gem, Inventory Management And Physical Verification of Stores”

The Training Centre, IBM, Nagpur organised an e-Training Programme through video conferencing on “E-Procurement through Gem, Inventory Management and Physical Verification of Stores” from 15th to 16th September, 2020 at IBM (Hqs), Nagpur.

It was the 616th training programme of the Training Centre and 2nd of this year. A total of 57 participants from all Zonal/Regional offices, Administrative Division, MMP & RMP labs participated in this training programme. The training was conducted in 4 sessions in three days covering various topics. Three lectures-cum-presentation viz Introduction and Guidelines of Stores Procedures for e-procurement of Goods & Services on Govt. e-Marketplace (GeM); Key features of Dashboard Management with Order Processing for e-procurement through Govt. e-Marketplace (GeM); and an Overview of Online Interface for Procurement of Goods and Services through Government e-Marketplace, were delivered by Shri S.K. Chourey, Asstt. Stores Officer while Shri D. Kumara Swamy, Chief Admn. Officer, IBM, presented a lecture on “Guidelines for Physical Verification of Stores” and on “Inventory Management”.

The training sessions were followed by a lively Group Discussion Session wherein Shri D.K. Swamy, Chief Admn. Officer, IBM and Shri S.K. Chourey, Asstt. Stores Officer, IBM interacted with the participants, answered queries and made a final pitch in respect of GEM and the advancement and features/updation in GEM portal. Shri U.L. Gupta, SMG & In-charge of Training Centre thanked all the faculties and participants for their keen interest on sequential topics covered in the training programme. Shri S.K. Chourey, Asstt. Stores Officer, IBM, was the Course Director for the programme while Shri D.M. Patil, AMG, Training Centre, worked as Course Co-ordinator. Shri Yogesh Mathare of NIC provided the technical support for the Video Conferencing.



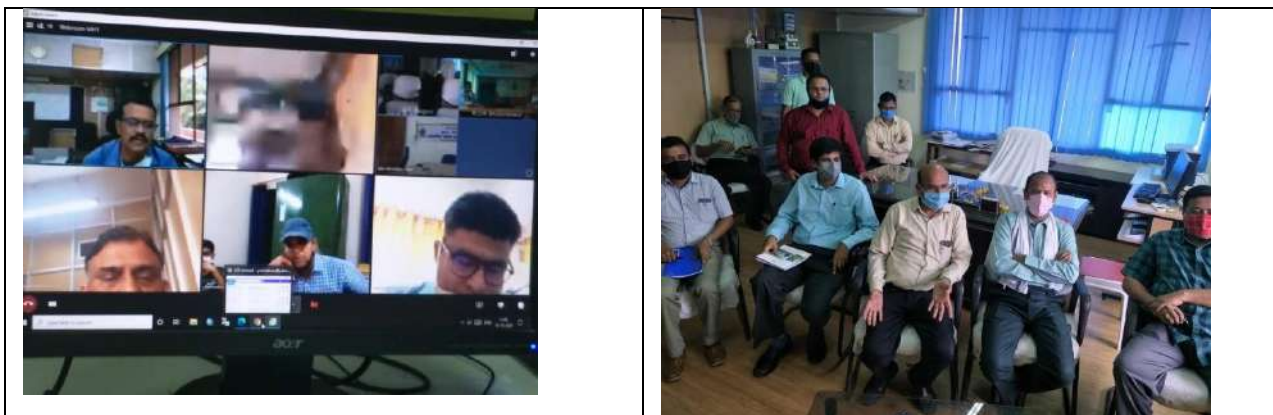
e-Training Programme – “E-Procurement Through Gem, Inventory Management And Physical Verification of Stores”

5.11.2.3 E- Training on Mineral Resource Appraisal, Deposit Evaluation and Estimation of Mineral Resources

The Training Centre, IBM, Nagpur organised an E- Training Programme on Mineral Resource Appraisal, Deposit Evaluation and Estimation of Mineral Resources in mineral or ore deposits; Various Regulatory Functions of IBM including preparation of National Inventory; and Application of Remote Sensing & Geographical Information System from 13-15 October, 2020. This virtual training programme was conducted through Video Conferencing in the backdrop of COVID pandemic.

It was 617th training programme of the Training Centre and 3rd of this year.

A total of 32 Officers from Mining and Geology discipline from all Zonal/Regional offices of MDR Division & TMP participated in this training programme. The training was conducted in 6 sessions in three days covering various topics. Lectures on Feasibility Study & Mineral Reserves Estimation by Shri. S.K. Adhikari, Chief Mining Geologist; Mineral Resources Appraisal by Dr Bhagavan GVGK, Regl. Mining Geologist; Deposit Evaluation and Resources Estimation by Shri Parag M. Tadlimbekar, Suptdg. Mining Geologist; An overview of National Mineral Inventory & Common Deficiencies observed in Updated National Mineral Inventory Sheets by Shri. T.K. Sonarkar Senior Mining Geologist; and Application of Geographical Information System for Monitoring of Mining activities by Dr T.L. Sudhakara, Senior Mining Geologist were part of the E-Training Programme. The training sessions were followed by a lively Group Discussion Session wherein Shri Parag M. Tadlimbekar, Suptdg. Mining Geologist and Dr Bhagavan GVGK, Regl. Mining Geologist and other faculty members actively interacted with the participants. All the queries of the participants were patiently replied to the satisfaction of the participants. Shri U.L. Gupta, SMG & In-charge of Training Centre thanked all the faculty members and participants for their keen interest on sequential topics covered in the training programme. Shri Parag M. Tadlimbekar, Suptdg. Mining Geologist was the Course Director for the programme while Shri A.K. Patel , AMG, Training Centre, worked as Course Co-ordinator. Shri Yogesh Mathare of NIC provided the technical support for the Video Conferencing.



E- Training on Mineral Resource Appraisal, Deposit Evaluation and Estimation of Mineral Resources

5.11.2.4 E-Training on Administration, Establishment, Budget and Accounts

The Training Centre, IBM, Nagpur, on the directions of Shri P.N. Sharma, Chief Controller of Mines, I/c, organized its 618th Training Programme and the 4th in this year on the subject “Administration, Establishment, Budget and Accounts” from 3rd to 4th November, 2020. Conducted as e-Training Programme through Video Conferencing, in view of the prevailing Covid pandemic situation, this Training Programme had 37 officials as participants from all offices of the Bureau.

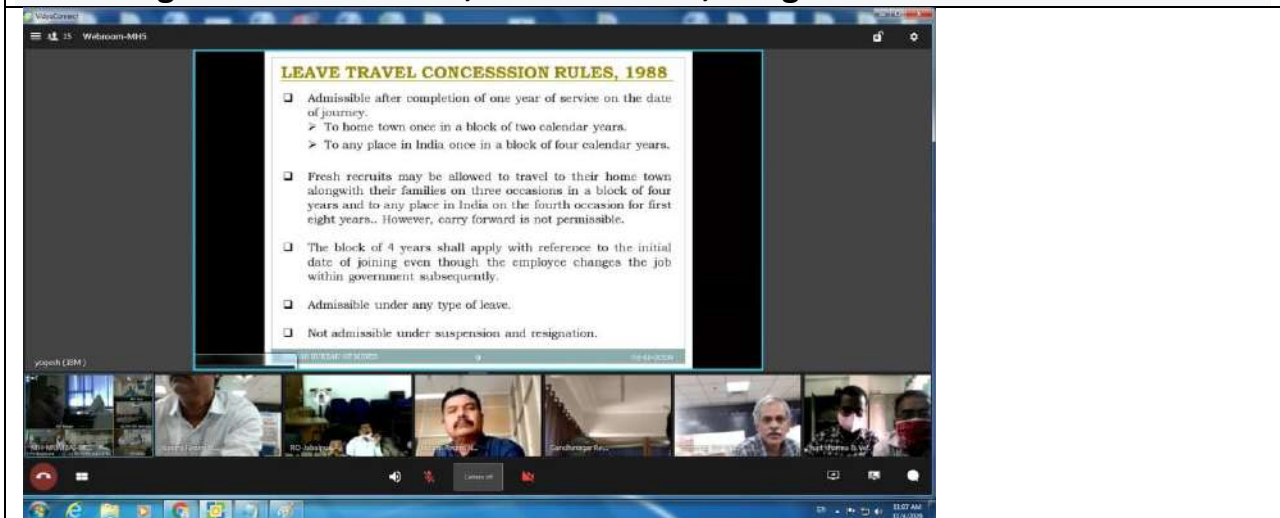
The training was conducted in 4 sessions in two days and covered multiple topics that included: 1. Record Management, Maintenance of Service Books, Pay Fixation, MACP, etc., by Shri D. Kumara Swamy, Chief Administrative Officer; 2. C.C.S. (Conduct) Rules, 1964 & C.C.S. (Leave) Rules, 1972 by Shri B. Sarat, Assistant Administrative Officer; 3. TA & LTC Rules & various Financial Rules including Departmental Delegations by Shri Dinesh Kumar, Administrative Officer; and 4. PFMS, New Pension Scheme & Bhavishya by Mrs M Gadpayale, Pay and Accounts Officer.

The training sessions were followed by a Group Discussion Session in which the participants actively interacted with the faculty members. Shri U.L. Gupta, SMG & In-charge of Training Centre thanked all the members of the faculty and participants for their enthusiasm and active involvement. Shri D. Kumara Swamy, Chief Administrative Officer was the Course Director for the programme while Shri Madan Kalwit, AME, Training Centre worked as Course Co-ordinator. Shri

Yogesh Mathare of NIC provided the technical support for the Video Conferencing.



E-Training on Administration, Establishment, Budget and Accounts



E-Training on Administration, Establishment, Budget and Accounts

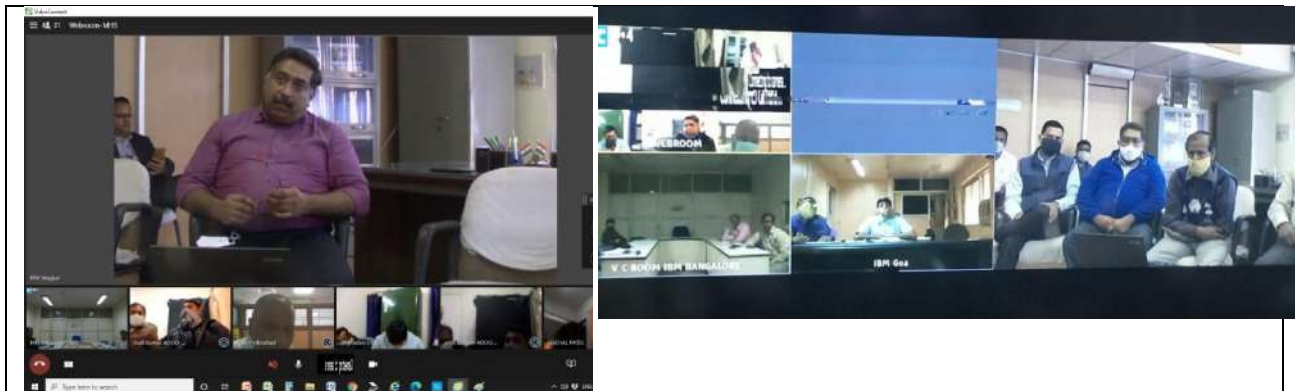
5.11.2.5 E-Training Programme on Planning & Coordination Activities of IBM

A two-day E-Training Programme on “Planning & Coordination activities of IBM” was conducted on 11- 12 January 2021 by the Training Centre, IBM, Nagpur through video conferencing. A total of 26 IBM officers from various Regional/Zonal offices, Modern Mineral Processing Laboratory & Pilot Plant/ Regional Mineral Processing Labs and various Divisions of IBM Headquarters participated in the Training Programme.

The Course Director of this Training Programme was Shri U.L.Gupta, Sr. Mining Geologist & In-charge, Training Centre, IBM. The Resource Persons from IBM who conducted the sessions during the Training Programme included Dr V.G.K. Bhagwan Gumma, Regional Mining Geologist, Shri Dinesh Kumar, Administrative Officer and Shri Satish Kumar Chourey, Assistant Store Officer.

Dr Bhagvan in his presentation covered topics under the subject “Function & Activities of Technical Secretariat (TS) of Controller General, IBM, while Shri Dinesh Kumar presented a lecture on “Budget Formulation” and finally Shri S.K.Choure, elaborately dealt on topics related to Planning Pertaining to Stores Procurement & Reports on Govt e- Market Place (GeM). The Training Programme concluded with a lively interactive session between the participants and the Resource Persons.

The Programme drew to a close with a valedictory note presented by Shri U.L. Gupta, SMG & In-charge of Training Centre & Course Director. Shri Gupta thanked all the members of the faculty and participants for their earnestness, enthusiasm and active involvement. Shri A.K. Patel, AMG, Training Centre extended support as Course Co-ordinator and Shri Yogesh Mathare of NIC provided the technical support for the Video Conferencing



E-Training Programme on Planning & Coordination Activities of IBM

5.11.2.6 Induction Training Programme on Preventive Vigilance for New Entrants

On the directions of the Ministry and guidelines from Chief Vigilance Officer, IBM, the Training Centre, IBM, Nagpur, organized an e-Training Programme through

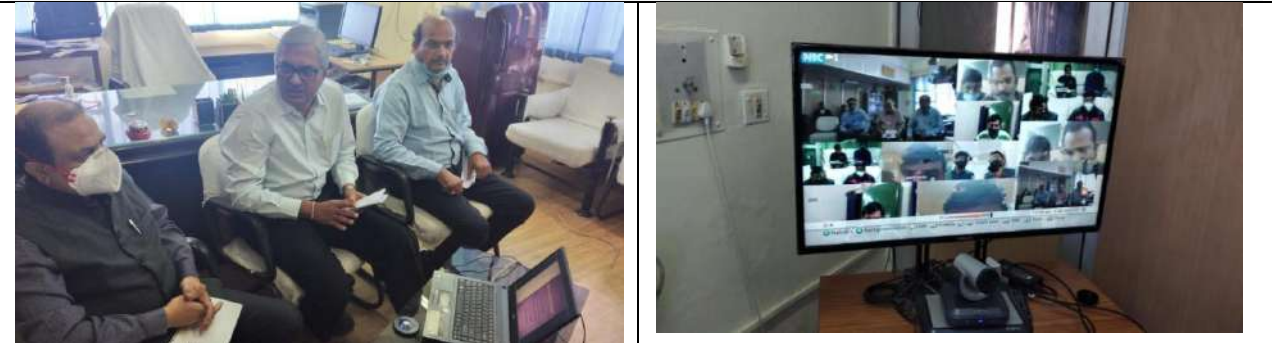
Video Conferencing titled “Induction Training Programme on Preventive Vigilance for New Entrants in IBM” from 19th to 20th January, 2021. The Training Programme was conducted under the counsel and guidance of Shri Pankaj Kulshreshtha, Chief Controller of Mines (I/c) and Shri V.D. Godghate, Chief Vigilance Officer, IBM. It was 620th training programme of the Training Centre and 6th of the current year. Due to the prevailing COVID 19 situation, this Training Programme too had to be organised by electronic way through video conferencing. A total of 37 IBM Officials from all offices of IBM participated in this training programme.

The programme was inaugurated on 19.1.20201 by Shri Pankaj Kulshreshtha, Chief Controller of Mines (I/c) in the presence of Shri V.D. Godghate, Chief Vigilance Officer, IBM, Dr Y.G. Kale, RCOM & HOO and Shri U.L. Gupta, SMG & In-charge of Training Centre. The major focus of the Training Programme was to urge all the participants to be well informed with regard to the various rules and to be vigilant and aware of the prescribed procedures in their official discharge of duties. The training was conducted in multiple sessions through two days on topics covering various aspects of preventive vigilance. The details of the sessions held during the Training Programme were as follows:

1. Preventive Vigilance: Concept & General Guidelines by Shri D.W. Parsodkar AMG (Vig.)
2. General Administration, FR & SR C.C.S. (Conduct) Rules, 1964 by Shri D.K. Swamy, CAO
3. Procedures for e-procurement of Goods & Services on Govt e-Marketplace (GeM) by Shri S.K. Choure, ASO.
4. Salient Features of MMDR Act and rules made there under with specific reference to MCDR/ MCR/ MEMC rules by Dr Y G Kale, RCOM & HOO
5. Mineral Processing and Facilities available in IBM by Dr (Mrs) Sandhya Lal, Director (OD) I/c
6. Case Studies on Vigilance Matters & Group Discussion by Shri V.D. Godghate, Chief Vigilance Officer, IBM

At the end of the two day programme, Shri V.D. Godghate, CVO and Shri U.L. Gupta, SMG & In-Charge, Training Centre, thanked all the participants and requested them for feedback on the sessions held. Shri Madan Kalwit, AME, Training Centre, was the Course Co-ordinator and Shri

Yogesh Mathare of NIC provided the technical support for the Video Conferencing.



Induction Training Programme on Preventive Vigilance for New Entrants

5.11.2.7 E-Training Programme on Aspects of MMDR Act & its Rules

The Skill Development Centre, IBM, at Kolkata, organised an e-Training programme on Scrutiny of various Forms and Notices received under MMDR Act and Rules made there under (other than Monthly/Annual returns) on 25th and 26th February, 2021, especially for mining geologists and mining engineers with an aim to understand the various data to be accommodated in various forms/returns in contemplation to respective MCDR rules and further its processing.

This training programme was organised as per the annual Course Calendar of Training Centre, IBM and was conducted through video conferencing in the backdrop of COVID pandemic situation. It was 621st training programme of the Training Centre and 7th of this year. A total of 30 IBM officials from all RO/ZO/ Divisional offices of IBM participated in this training programme. The training was conducted in 4 sessions in two days and different type of forms in three clusters were taken up and covered during the Training sessions. The sessions and Resource persons who conducted the sessions are as below:

1. Overview on prescribed formats of prospecting schemes for Prospecting Licence (PL) & PL-cum-ML. Yearly report & Final report of Prospecting and allied Forms A, B, I & J under Rule 4, 7, 9, 47 & 48(1) of MCDR-2017—Processing and Scrutiny, by Shri P.K. Bhattacharjee, Regional Controller of Mines IBM, Ranchi.

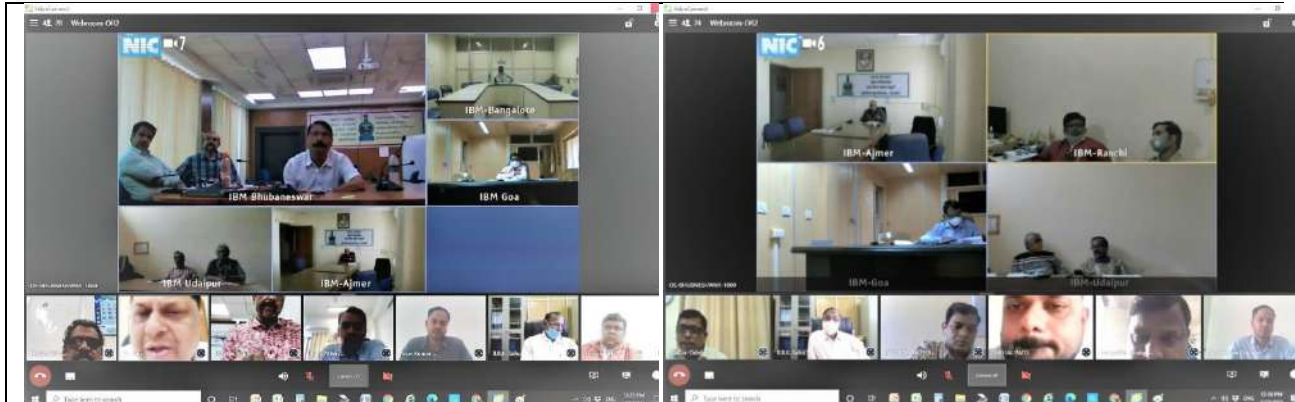
2. Processing & Scrutiny of Stopping cases—Notices in Form F of the

commencement of stoping under Rule 30(2) of MCDR- 2017, by Shri G.C. Sethi, Deputy Controller of Mines IBM, Bhubaneswar.

3. Processing, Scrutiny of Notices of Opening, Abandonment of mine or part of the mine and Temporary Discontinuance of mines vide Form C,D & E and Notices for certain appointments in mines in Form H under Rule 46 of MCDR-2017, by Shri Kewal Krishan, Regional Mining Geologist IBM, Bhubaneswar.

The training programme was concluded with Interaction-cum-Valedictory Session on 26.02.2021. Shri Harkesh Meena, RCOM, IBM, Bhubaneswar & In-charge COM (EZ) Office, Kolkata, chaired the session along with senior faculties and Dr S.K. Jha, Regional Mining Geologist was the Course Director. Shri Harkesh Meena stressed upon importance of the data contained in these forms/returns and its further processing & scrutiny.

At the end of the two-day programme, Shri P.M. Sundareswar, Course Co-ordinator, thanked all the participants, esteemed faculties, NIC authorities, officials of IBM's Regional Offices in Bhubaneswar and Kolkata for successful conduct of this training programme



E-Training Programme on Aspects of MMDR Act & its Rules

5.11.2.8 e-Training Programme on Global & Indian Regulatory Framework in the Field of Mining & Mine Environment

The Skill Development Centre, IBM, Udaipur, in accordance with the annual Course calendar of Training Centre, IBM, organized an e-Training Programme for mining engineers/mining geologists & mineral Economists of IBM from 9 to 10 March 2021 on the Global & Indian Regulatory Framework in the Field of Mining

& Mine Environment. Use of Space Technology in Mining; Latest Softwares Pertaining to Mine Planning & Designing; Resource Estimation and Techno-economic Feasibility of Mineral Resources; Latest Management Techniques in Mine Operations, Management & Monitoring; Technological Upgradations in the fields of Excavation, Exploration & Mineral Processing; and Method of Stopping & Related Activities” were the topics dealt with during the course of the Training programme. Detailed briefings on the various activities/functions carried out by IBM in the areas of mineral conservation, systematic development of mines towards sustainable development of mineral resources were included as part of the Training Programme.

The Training Programme did have to be conducted through VC in the backdrop of COVID pandemic situation. It was 622th training programme of the Training Centre and 8th of this year. A total of 38 IBM Officials from all Regional Offices/Zonal Offices/Offices of MDR & ME Divisions of IBM participated in this Training Programme.

The Training Programme that comprised 5 sessions had 7 presentations, the details of the presentations are as follows:

1. Global & Indian Regulatory Framework in the Field of Mining & Mine Environment by Shri Abhay Agrawal, RCOM;
2. Resource Estimation and Techno-economic Feasibility of Mineral Resources, Technological Upgradations in the Field of Exploration by Dr Omekesh Murthy, RMG;
3. Latest Management & Monitoring Techniques in Mine Operations by Shri Rajneesh Purohit, RCOM, Jabalpur;
4. Latest Softwares Pertaining to Mine Planning & Designing, Technological Upgradations in the Field of Excavations by Shri P.K. Bhattacharjee, RCOM, Ranchi;
5. Method of Stopping & Related Activities by Shri B.L. Kotriwala, RCOM, Ajmer;
6. Use of Space Technology in Mining by Shri D.D. Bhardwaj, Sr. ACOM; and
7. Technological Upgradations in the Field of Mineral Processing By Shri Basavraj Karadkal, SO(OD).

The concluding segment on 11.03.2021 of the Training Programme included an Interactive Session, coordinated by Shri K.K.Tardia, DCOM & Course Director.

Among the faculty members, Shri B.L. Kotriwala, RCOM, Dr Omkesha Murthy, RMG, Shri Basavraj Karadkal, SO(OD) and Shri D.D. Bhardwaj, Sr. ACOM, were present and various aspects/issues pertaining to geology, mining & mineral processing were discussed. In the Valedictory Session conducted at the end of three-day programme, Shri U.L. Gupta, SMG & In-charge Training Centre, Nagpur, presented a brief account on formulation and execution of virtual trainings conducted by IBM and their efficacy during pandemic situation. Shri Pankaj Kulshreth, Assistant Mining Engineer & Course Co-ordinator, while proposing the vote of thanks, thanked all the participants, esteemed faculties, officials of Udaipur Office of IBM and Training Centre. Special thanks was extended to Shri Yogesh Mathare, NIC Consultant at IBM, Nagpur, for the support extended for successful conduct of the training programme.



8e-Training Programme on Global & Indian Regulatory Framework in the Field of Mining & Mine Environment

5.12 Measures for Abatement of Pollution and Environmental Protection

The IBM undertakes inspections/ studies for the enforcement of provisions of MCDR, 2017 which include provision on protection of mine environment to ensure that due care is being taken by the mine operators. During inspection it ensures that mine operators are taking due care for preservation and utilization of top soil, storage of overburden / waste rocks, reclamation and rehabilitation of land, precaution against ground vibration, control of ground subsidence, abatement measures against air, water- and noise pollution, restoration of flora, etc. in addition to other conservation and developmental measures. Necessary guidance to mine managements/ operators are also given for systematic and scientific development of mine including protection of environment.

While approving the mining plans, Review of mining plans of mining and mine closure plans, IBM ensures that environment impact assessment studies have been carried out and to that effect environmental management plan has been incorporated for its effective implementation, besides reclamation and rehabilitation of mined-out areas.

As a result of follow up for implementation of EMP, extensive afforestation has been undertaken in the mines by the mine owners. During the year 2020-21, So far, 19.98 lakh saplings have been planted over an area of about 852 hectares within lease area of 641 mines and 5.24 lakh saplings have been planted over an area of about 398 hectares outside lease area of 476 mines with a survival rate of 81 percent as per information collected from various regional offices.

Similarly, work of simultaneous reclamation/ rehabilitation is also undertaken by the mine owners for abandoned mines. During the year 2020-21 Reclamation/rehabilitation work is in progress in 278 working mines where 403 hect. Area is reclaimed.

5.13 Revenue Generation

IBM generates revenue through consultancy, training, statutory processing and sale of publications & data etc. Revenue generated during 2020-21 is `397.99 lakhs comprising `17.85 lakhs from mineral processing assignments; `378.76 lakhs from processing of mining plans/review of mining plans and balance `1.38 lakhs (ME Div Fig) from sale of publications, mineral maps, mineral inventory data etc.

5.14 Computerization

The Regional (Except Raipur & Gandhinagar RO) /Zonal offices and Headquarters of IBM have been linked through a sophisticated system based on client server architecture established with the help of BRGM, France. Proposal for connecting Raipur & Gandhinagar RO with said system along with VC facility is under process. IBM has well established LAN facility, besides WAN system to communicate and exchange data with Regional, Zonal offices and Headquarter offices. In all RO/ZO offices, except Raipur & Gandhinagar, VC facility is operational.

The Web Portal of IBM i.e. www.ibm.gov.in provides information on IBM's history, functions, organization, divisions of IBM and its activities, jurisdiction of regional & zonal offices, services offered by IBM. The new domain [https://mitra.ibm.gov.in/ Pages/returns.aspx](https://mitra.ibm.gov.in/Pages/returns.aspx) also functional for facilitating the stakeholders to submit the Monthly & Annual Return online and also scrutiny of the same by IBM. Further, the Bilingual Website of IBM is being updated as and when required.

5.14.1 Submission of Returns:

After introduction of online submission of returns system consequent upon amendment to Rule 45 of MCDR, 1988 vide notification No. 75(E), dated 9th February, 2011, the mine owners have commenced submission of monthly and annual returns online. IBM is monitoring and guiding/ encouraging the mine owners and their representatives for online submission of returns. The month-wise monthly returns submitted online are given in **Table –5.14 A**

Table 5.14 A

Month-wise Returns Submitted online

| Sl No. | Month | No. of monthly returns received online |
|--------|-----------------|--|
| 1 | January, 2020 | 2,219 |
| 2 | February, 2020 | 2,196 |
| 3 | March, 2020 | 2,170 |
| 4 | April, 2020 | 2,125 |
| 5 | May, 2020 | 2,115 |
| 6 | June, 2020 | 2,098 |
| 7 | July, 2020 | 2,061 |
| 8 | August, 2020 | 2,018 |
| 9 | September, 2020 | 1,980 |
| 10 | October, 2020 | 1,896 |
| 11 | November, 2020 | 1,499 |
| 12 | December, 2020 | 1821 |
| 13 | January, 2021 | 1799 |
| 14 | February, 2021 | 1778 |
| 15 | March 2021 | 1749 |

5.14.2 Registration under Rule 45

The status of registration under Rule 45 of MCDR 1988 and **Online Registration of Mines / Leases as on 31.3.2021** is as follows:

Online Registration of Miners, End Users, Traders, Stockiest and Exporters (Including 31 minor minerals)

| Serial Number | Particulars | Status at the end of March, 2021 |
|---------------|------------------|----------------------------------|
| 1 | No. of Miners | 6390 |
| 2 | No. of End Users | 3574 |
| 3 | No. of Traders | 6147 |
| 4 | No. of Stockiest | 1839 |
| 5 | No. of Exporters | 1001 |
| | TOTAL | 18951 |

Online Registration of Mines / Leases (Excluding 31 Minerals)

| Serial Number | Particulars | Status at the end of March, 2021 |
|---------------|---|----------------------------------|
| 1 | No. of leases | |
| | (a) Working | 1092 |
| | (b) Non-working | 2368 |
| | Total | 3460 |
| 2 | No. of leases registered | |
| | (a) Working | 1087 |
| | (b) Non-working | 2054 |
| | Total | 3141 |
| 3 | No. of mines / leases where show cause / VL issued (for non registration) | 15 |
| 4 | No. of mines / leases suspended | 137 |

| | | |
|--|---|-----|
| 5 | No. of mines / leases recommended to the state Government for termination | 106 |
| 6 | No action taken for being new mines (recently granted leases & yet to open) | 32 |
| 7 | Lapse cases | 29 |
| Note: Terminated cases excluded from above details also as per list of leases supplied by respective governments. | | |

5.15 Mining Tenement System (MTS)

MTS project was taken up by IBM during the programme year 2009 - 10. The objective of the Scheme is to develop an online National Mineral Information System for investors by linking Central and State organizations engaged in administration of mineral resources in the country. The mining tenement system would have graphical information database (GIS) as well as information in textual form. These two databases, i.e., non-spatial database and spatial database would be seamlessly integrated so as to retrieve graphical information as well as relevant textual information. The system will be thus web enabled and access to the system will be given online to prospective investors, government organizations, private and public organizations through Internet as per policy of the Government.

As approved by Core committee on MTS, the successful bidder M/s WIPRO signed the contract with IBM on 10.11.2016 in the august presence of Secretary (Mines) at Nagpur. M/s NISG, Hyderabad signed agreement as Project Management Unit(PMU) on 04.05.2017. Core Committee approved the Project Plan, SRS Document of Phase-I and COTs Software along with release of linked payments as per RFP. Pradhan Mantri KhanijKshetra Kalyan Yojna (PMKKKY), a part of MTS and as a change request was approved by Core Committee on

26.10.2017. For procurement of Cloud Services, the Co-ordination Committee has approved the name of M/s ESDS and accordingly, an agreement with M/s ESDS was signed on 23.11.2017 at Nagpur. The SRS Document of Pradhan Mantri KhanijKshetra Kalyan Yojna (PMKKKY) along with System Design Document (SDD) for Phase-1 was approved on 30.01.2018 by Core Committee. Three modules of MTS Project viz. PMKKKY, Registration and Daily Returns were launched by Honorable Minister of Mines Shri Narendra Singh Tomar on 20.03.2018 during 3rd National Conclave on Mines & Minerals at New Delhi. PMKKKY went live w.e.f. 27.08.2018 for data entry at district level and most of the States started entering data on DMF collection and projects sanctioned for utilization of fund in high and other priority heads in the affected areas due to mining. The Registration module is available on <http://mitra.ibm.gov.in> and applicants engaged in mining are updating the details since 15th Feb 2019. Similarly Daily Return Forms D1, D2 and D3 and Monthly Return Forms F1, F2 and F3 forms are available on <http://mitra.ibm.gov.in> to view and submit the returns.

The project was to be completed by WIPRO within a period of one and half years in two phases. However, frequent changes in Wipro management team and resources allocated to the project at Hyderabad coupled with inadequate strength, resource allocated at different locations other than IBM, Nagpur and lack of domain knowledge affected the progress of MTS project.

The Registration and Return (Daily & Monthly) module were provided in February 2019, pending reports and dashboard. The PMKKKY module (included as change request) was made available from 27-08-2018 without auto population of functionality of district data with micro detailing of projects. The other three modules Mining Plan, Ore Accounting System & Star Rating were provided for testing and further rectification was not done.

In the year 2020-21, Wipro's expressed its unwillingness to continue with the project in the Coordination Committee Meeting dated 18.12.2020. Coordination Committee recommended to accept the termination of contract with Wipro. The termination of contract with Wipro and NISG was accepted in the Core Committee meeting held under the chairmanship of Secretary (Mines) on 18.02.2021.

Future Course of Action:

As a result of refusal by WIPRO to continue the development of MTS and in principle decision to terminate the contract following alternative future course of action is as follows:

1. To upgrade / modify the two old portals <https://ibmreg.nic.in> for Registration; <https://ibmreturns.gov.in> for Returns to include the forms of Monthly & Annual Returns as prescribed under MCDR-2017 and architecture through NIC
2. To develop face-less system of Mining Plan Approval through NIC
3. Above two actions have already been taken and NIC is in the process of starting the work on it.

5.16 Sustainable Development Framework (SDF)

Star Rating System: A good governance initiative is designed as a tool for evaluation of the performance of lease operators on the various parameters encompassed by the Principals of the Sustainable Development Framework (SDF) approved by Ministry of Mines in 2011 in line with the National Mineral Policy 2008. Thus it can be viewed as a mapping of mining footprints from the view point of Sustainability.

The system has been developed primarily on the basis of self-assessment followed by validation by Indian Bureau of Mines along-with provisions for third party auditing as may be considered fit by Ministry of Mines. The Star rating has been mandated by rule 35 of newly notified MCDR 2017. All the mine operators are mandated to achieve four or five star ratings within a stipulated time period of two years from the date of commencement of mining operations or the date of notification of the rules (i.e. March 2017) whichever is later in accordance with rule 35 of MCDR 2017. Failing which Mining operations are liable to be suspended. A system of third party auditing of the award of rating system and the process implementation is also proposed.

Following are the anticipated outcomes of the Star rating system:

- Reduced environmental and social conflicts in areas awarded for mining.
- Greater clarity for all concerned stakeholders, on risk levels of mining lease areas.

- Potentially reduced delays in obtaining clearances environmental, forest) for mines.
- Improved protection of high risk areas in terms of environment and social considerations.
- A Regional Mineral Development Plan for selected mining areas and addressing key regional and cumulative impacts of mining through coordinated and collective action.
- Opportunity for clustering of small operators to become more competitive, and compliant.
- A robust E&S Management framework in mining companies.
- A disclosure process that provides stakeholders with relevant and timely information, and allows issues to be raised in engagement forums.
- Enhanced control on illegal mining activities through intensive stakeholder scrutiny by publishing details on mining activity in public domain.
- Intensive use of geo-spatial and geo-scientific information at mine level for assessment, planning, management and monitoring of the mining sector.
- Stronger monitoring and assurance systems and processes and
- SDF reporting on governance and ethical practices.
- The critical analysis of the Star rating templates will result into -
- Identification of the thrust areas for policy formulation
- The resource base creation for investment opportunity in the field of exploration, mining, mining as a hub for green energy development, mine water management, skill development requirements and efforts, the use and scope of space and digital technology
- Dissemination of best practices in the field of mining and allied activities.
- Critical analysis of mining activities in our country vis a vis global mining practice.
- Issues related to Raw material Security in country.

Based on evaluation of the performance of lease operators on the various parameters encompassed by the Principals of the Sustainable Development Framework (SDF) approved by Ministry of Mines, validation of self-assessed templates was carried out by IBM and accordingly rating was given as 0 to 5. The year wise 5 Star Rated mines are given below.

| Year | 5 Star Rating |
|---------|---------------|
| 2014-15 | 10 |
| 2015-16 | 32 |
| 2016-17 | 57 |
| 2017-18 | 57 |
| 2018-19 | 52 |
| 2019-20 | 40* |

* For the performance year 2019-20, so far 959 lessees have filed self assessment templates out of which 40 mines are recommended for 5-star award.

The mine operators were felicitated for achieving 5 star rating at National Conclave on Mines and Minerals held at Raipur, Delhi and again in Delhi for the said years on 4-5 July, 2016, 15th February, 2017 and 20th March, 2018 respectively.

5.17 Mining Surveillance System (MSS)

Mining Surveillance System (MSS) is a satellite-based monitoring system which aims to establish a regime of responsive mineral administration by curbing instances of illegal mining activity through automatic remote sensing detection technology.

- Ministry of Mines & Indian Bureau of Mines (IBM) have developed the MSS, with assistance from Bhaskaracharya Institute for space applications and Geo-informatics (BISAG), Gandhinagar and Ministry of Electronics and Information Technology (MEITY).
- The system works on the basic premise that most minerals occur in the continuity and their occurrence is not limited to the lease area but is likely to extend in the vicinity. The MSS checks a region of 500 meters around the existing mining lease boundary to search for any unusual activity which is likely to be illegal mining. Any discrepancy is found is flagged-off as a trigger.
- The MSS is a transparent & bias-free system, having a quicker response time and capability of effective follow-up. The deterrence effect of 'Eyes watching from the Sky' would be extremely fruitful in curbing instances of illegal mining.

- A user friendly mobile app for MSS has been created and launched on 24th January, 2017 at Gandhinagar for enabling public participation in assisting the governments endeavor to curb illegal mining, which was being used by the inspecting officials to submit compliance reports of their inspections.
- In the initial phase, a total of 296 triggers across the country covering a total area of 3994.87 hectares wherein, 47 unauthorized mining have been confirmed after inspection of the triggers by the state government officials.
- The training of all the States for its adoption of the MSS for minor minerals has also been done.
- In the second phase, 52 major mineral triggers, have been detected from the 3280 plotted leases (Working Mines 1689 plotted out of 1694 and Non-Working Mines 1596 plotted out of 2129) across the country, out of which 45 have been verified by the State Governments and in 5 cases unauthorized mining activities have been identified.
- Similarly, in respect of minor minerals, so far, 130 triggers have been generated, out of which 104 have been verified and in 9 cases unauthorized mining activities have been identified.

In the third phase in February, 2021, 80 preliminary triggers are generated for major minerals and uploaded on the portal for further transmission to the state governments.

5.18 Remote Sensing Centre becomes operational

The setting up of Remote Sensing Project under IBM- National Remote Sensing Centre (NRSC) Memorandum of Understanding has been completed and the laboratories in IBM HQs in Nagpur and Hyderabad Regional office are fully functional as on December 2018.

The IBM signed an MoU with NRSC, Hyderabad for “Capacity Building and Technical Support for lab establishment for monitoring the activities/changes within the mining lease area and within the 2 km buffer of mining lease

boundaries using time series satellite imagery”. With the guidance and hand-holding of NRSC, Hyderabad, IBM has set up two state-of-the-art remote sensing and GIS facilities at Nagpur and Hyderabad. The laboratories are equipped with latest software like Erdas Imagine Professional with Photogrammetry and ArcGIS Desktop Desktop Advance and its extension with machine hardwares.

Under Capacity building activity, the officers and staff of IBM were given a training in organisations like GSI and NRSC to handle the softwares. IBM officers attended two refresher courses in Advanced Geographic Information System and Remote Sensing and Digital Image Processing at GSI Training Institute in Hyderabad in the month of April and July, 2018. While, select officers and staff of GM & MM Cell underwent training Basics of GIS using Open Source Software at GSI Regional Training Institute, Nagpur in June, 2018.

A Training was conducted to officials of IBM at NRSC, Hyderabad from 5th to 9th August 2019 under IBM - NRSC Remote Sensing Project. On this training, 22 officials of IBM have participated. Coinciding to the concluding day of the training programme, NRSC –IBM schedule a review meeting also on 09/08/2019.

MoU has been signed between IBM and MOIL on “Assessing the impact of mining activities around the leases and prospecting licenses of MOIL Ltd. through application of GIS and Remote Sensing techniques as a model pilot project’. Break line drawing in the cartosat-1 images the year 2010 and 2014 and 2018 for extraction of DEM is completed. The exploration data and other information required from M/s MOIL for DongriBuzurg Mine for implementation of the project was collected. The data has been geo-referenced and digitized..Change detection and volumetric estimation of pits and dumps has been carried out and draft report is prepared.

5.19 Capacity Building of State Governments

As per the charter of Function, IBM to act as a National Technical Regulator in respect of the mining sector, and lay down regulations, procedures and systems to guide the State Governments (first tier of regulation) as well as build up capacity in the system, both for regulatory as well as the developmental work, at the central level as well as at the level of the States.

5.20 Swachata Pakhawada

SwachataPakhawada has been organised from 16th November, 2020 to 30th November, 2020 at Head Quarter as well as at regional offices under Swachhata Action Plan 2020-21. A consolidated report has also been sent to Ministry. More details are included in the chapter on Celebrations by IBM.

5.21 COVID 19

As per the directives from competent authority, IBM followed guidelines and initiated various steps towards containment of spread of COVID 19. IBM has advised all its officials to work from home with effect from 24.03.2020. However, as per the clarifications to central govt. guidelines received from time to time, field offices of IBM are functional with bare minimum strength in order to clear pending statutory requirements such as approval of mining plans to ensure uninterrupted supply of mineral commodities.

Employees of IBM have given consent for contribution of one day salary to PMNRF. Accordingly, IBM's contribution is Rs.17.11 lakh.

6.0 IBM Budget 2020-21

IBM had proposed Plan outlay of ` 146.10 crores for 2020-21. The IBM's proposed outlay was mainly for five ongoing schemes and establishments. During the Annual Plan 2020-21, Ministry had allocated `128.31 crores including ` 99.68 crores for Establishment and Rs. 28.63 crores for IBM Activities, which is further reduced to Rs.94.00 crores at RE stage including Rs.82.37 crores for Establishment and Rs. 11.63 crores for IBM Activities.

(Rupees in crore)

| Head | B. E. | R.E | Expenditure (Up to March 2021) |
|----------------|-----------------|--------------|--------------------------------------|
| Establishment | 99.68 | 82.37 | 81.79 |
| IBM Activities | 28.63 | 11.63 | 5.1922 |
| Total | 128.3100 | 94.00 | 86.9822 |

6.1 SCHEME-WISE FINANCIAL PERFORMANCE OF IBM DURING 2020-21

(Rs. In crores)

| Head | BE | Exp. Upto March, 2021 | % |
|-------------------------------------|-----------------|--------------------------|--------------|
| Establishment | 99.68 | 81.79 | 82.05 |
| Sch.1 | 1.45 | 1.15 | 79.31 |
| Sch.2 | 0.63 | 0.42 | 66.66 |
| Sch.3 | 0.90 | 0.5717 | 63.52 |
| Sch.4 | 0.32 | 0.1958 | 61.18 |
| Sch.5 | 13.50 | 1.109 | 08.21 |
| Other Heads (SAP, Trg. OAE, TSP) | 4.46 | 0.7817 | 17.52 |
| Capital Outlay (MV, M&E, MWB) | 4.51 | 0.069 | 01.52 |
| NER (Revenue) | 1.31 | 0.88 | 67.17 |
| NER (Capital) | 1.55 | 0.00 | 0.00 |
| Total | 128.3100 | 86.9822 | 67.78 |

6.2 Audit paras: Local Audit inspection paras: Up to 31st March 2021, compliance report in respect of 38 paras is awaited from HQ & Regional Offices.

Internal Inspection paras: up to 31st March 2020, compliance report in respect of 179 paras is awaited from HQ & regional offices.

6.3 CAG Audit Para

As on March 2021, no CAG audit para is pending in respect to IBM.

7.0 Human Resources in IBM

The Bureau has a total sanctioned strength of 1477 consisting of various disciplines as mining engineers, geologists, ore dressing, chemical, metallurgical engineers, mineral economists, statisticians, administrative officers and supporting staff.

7.1 Ministry vide orders as recorded below accorded sanctions for entrusting additional charge of top most level posts in IBM:

7.1.1 Additional charge of CG:

1. Ministry vide letter No.26/3/2020-M.III 15.5.2020 conveyed approval of the competent authority of Ministry to assign the additional charge of the post of the Controller General, Indian Bureau of Mines to Shri Satendra Singh, Joint Secretary, Ministry of Mines for a period of six months w.e.f. 15.05.2020 or till further order, whichever is earlier.

Ministry of Mines vide letter No.26/3/2020-M.III (Part-I) dated 30.09.2020 has conveyed the approval of ACC towards the entrustment of the additional charge of the post of Controller General, IBM, to Shri Satendra Singh, IAS, Joint Secretary, Ministry of Mines for a period of 06 months w.e.f. 15.05.2020, or till the appointment of a regular incumbent to the post, or until further orders, whichever is the earliest.

2. Ministry of Mines vide letter No.26/3/2020-M.III dated.12.11.2020 conveyed approval of the competent authority of Ministry to assign the additional charge of the post of the Controller General, Indian Bureau of Mines to Shri Sanjay Lohiya, IAS Joint Secretary Ministry of Mines w.e.f 15.11.2020 till further orders.

Ministry of Mines vide letter No.26/3/2020-M.III dated.16.03. 2021 conveyed the ex-post facto approval accorded by the Appointment Committee of the Cabinet (ACC) towards the entrustment of additional charge of the post of Controller General, Indian Bureau of Mines, (IBM) to Shri Sanjay Lohiya, IAS Joint Secretary Ministry of Mines for a period of nine months w.e.f.15.11.2020, or till appointment of a regular incumbent to the post, or until further order, whichever is the earliest.

7.1.2 Additional charge of CCOM (MDR) Post

1. Ministry vide letter No.26/3/2020-M.III 15.5.2020 conveyed approval of the competent authority of Ministry to assign the additional charge for the post of the Chief Controller of Mines (MDR), Indian Bureau of Mines to Shri P.N. Sharma, COM, IBM for a period of six months w.e.f. 15.05.2020 or till further order, whichever is earlier.

Ministry of Mines vide letter No.26/7/2019 M.III dated 12.10.2020 has conveyed the approval of ACC of the additional charge of the post of the Chief Controller of Mines (MDR), Indian Bureau of Mines to Shri P.N. Sharma, COM, IBM w.e.f. 15.05.2020 to 30.10.2020 or till appointment of a regular incumbent to the post, or until further order, whichever is the earliest.

Ministry of Mines vide letter No.26/7/2019 M.III dated 16.11.2020 has conveyed the approval of competent authority of Ministry for extension of the additional charge of the post of the Chief Controller of Mines (MDR), Indian Bureau of Mines to Shri P.N. Sharma, COM, IBM with immediate effect for one year, or until further order, whichever is the earlier.

7.1.3 Additional charge of CCOM (ME&S) Post

Ministry vide letter No.26/2/2018-M.III 30.9.2020 conveyed approval of the Appointment Committee of the Cabinet (ACC) to assign the additional charge for the post of the Chief Controller of Mines (MES), Indian Bureau of Mines to Shri Pankaj Kulshreshtha, COM, IBM with immediate effect (23.9.2020) for a period of six months or till appointment of a regular incumbent to the post, or until further order, whichever is the earliest.

7.1.4 Additional charge of Director (MPD) Post

Ministry vide letter No.26/4/2020-M.III 8.9.2020 conveyed approval of the Appointment Committee of the Cabinet (ACC) to assign the additional charge for the post of the Director (Ore Dressing), Indian Bureau of Mines to Dr. (Smt.) S.M.Lal, CODO, IBM from 8.9.2020 to 30.11.2020 or till appointment of a regular incumbent to the post, or until further order, whichever is the earliest.

Ministry vide letter No.No.26/4/2020-M.III dated 4.12.2020 conveyed approval of the Competent Authority for extension of the additional charge for the post of the Director (Ore Dressing), Indian Bureau of Mines to Dr. (Smt.) S.M.Lal, CODO, IBM for a period of six months w.e.f. 1.12.2020 or till ACC decision comes, whichever is the earlie, or until further orders.

Ministry vide letter No.26/4/2020-M.III 19.4.2021 conveyed approval of the Appointment Committee of the Cabinet (ACC) to assign the additional charge for the post of the Director (Ore Dressing), Indian Bureau of Mines to Dr. (Smt.) S.M.Lal, CODO, IBM for a period of nine months w.e.f. 1.12.2020 or till appointment of a regular incumbent to the post, or until further order, whichever is the earliest.

7.2 Committee for Review and Restructuring of the Functions and Role of IBM

Ministry of Mines had constituted a Committee vide its Resolution No. 16(27)/2009-M.VI dated 23-07-2009 for the Review and Re-structuring of the Functions and Roles of Indian Bureau of Mines (IBM) in terms of the policy directions given in the National Mineral Policy and the Mines and Minerals (Development and Regulation) Act and Rules framed there under.

2. The Committee submitted its Report to the Government of India on 4.5.2012 suggesting for overall restructuring of the IBM. It recommended the creation of 933 posts in addition to the existing strength of 1477. Ministry of Mines reviewed the recommendations of the Committee in the wake of significant changes in the legislative framework by the Government. Ministry optimized the proposal without considering increase in sanctioned strength. The proposal was examined in consultation with the Department of Expenditure, Ministry of Finance. The proposal was finalized with the creation, abolition and upgradation of posts under various disciplines of IBM keeping the expenditure revenue neutral by way of matching saving through surrender of 180 Group 'A' (level 10) posts of Geological Survey of India, an Attached Office of Ministry of Mines.

3. The Department of Expenditure accorded approval to the proposal and suggested that the posts to be surrendered will be done gradually as and when the incumbents retire on superannuation or otherwise or are promoted.

4. The Cabinet approval was also accorded in consonance with the Department of Expenditure instructions vide OMNo. 7(I)/E.Coord-I/2017 dated 12.04.2017 for creation/ upgradation/ abolition of posts of the level of Joint Secretary and above.

After the Cabinet approval, detailed discipline-wise, revised sanctioned strength of IBM, is notified vide Gazette Notification No. 31/72/2009-M.III.Vol.I (part-I) dated 15th May, 2018, published on 17.5.2018.

Consequent to gazette notification following actions have been initiated:

1. Office Orders issued regarding re-designation pertaining to the post merged, merged & upgraded etc in accordance with the notification.
2. Internal Committee has been constituted in IBM under the chairmanship of CCOM in charge for implementation of restructuring for deciding re-deployment of man power and amending codified duties in respect of employees of IBM.
3. The Recruitment Rules in respect of various disciplines had been uploaded in the IBM's Website for inviting stakeholders' comments & then finalized after incorporating comments. Revised RRs for Mineral Economics, Library, Rajbhasha, Stores, Administration, Stenographer, Drawing, Geology, Mining & Publication Discipline have been notified. Remaining RRs are at various stages of finalization at Ministry, UPSC & DOPT.
4. Proposals for DPC to various posts as per the existing RRs and revised RRs has been sent to Ministry for holding DPCs at UPSC/Ministry in respect of Gazetted posts and DPC meetings were held at IBM on regular basis to consider promotions to the Group B (NG) posts and Group 'C'.
5. Remaining appointments through direct recruitment is taken up on regular basis with Ministry and SSC.

Consequent to gazette Notification, the Bureau has a total sanctioned strength of 1477 consisting of 704 Gazetted (Group A – 459 & B – 245) and 773 Non-Gazetted (Group B – 257, Group C -516) posts. Sanctioned and filled up strength as on 31.3.2020 is given in the below table.

Employment of Personnel in IBM as on 1.3.2021

| Group | Sanctioned strength | Total No. of employees in position | Number of Personnel | | | | | |
|--------------|---------------------|------------------------------------|---------------------|-----------|------------|------------|-----------|------------------------|
| | | | SC | ST | OBC | Minorities | Women | Physically Handicapped |
| A | 459 | 130 | 16 | 07 | 33 | 10 | 04 | 00 |
| B | 502 | 296 | 34 | 15 | 43 | 10 | 53 | 06 |
| C | 516 | 301 | 65 | 18 | 53 | 16 | 35 | 06 |
| Total | 1,477 | 727 | 115 | 40 | 129 | 36 | 92 | 12 |

7.3 Redressal of Public Grievances

At the beginning of the year 7 grievance cases were pending at various stages. During the year 2020-21, 30 new grievance petitions were received. So far 45 cases have been disposed off including grievance cases pending at the beginning of the year. Online facility for Registration of Public Grievances has already been provided by linking IBM website with the Grievance Portal of DoPT" PROGRAMS".

7.4 Vigilance cases

During the year 2020-21, 22 complaints were received of which all the 21 were brought to their logical conclusion and appropriate action initiated as deemed fit after investigation. 01 complaint is still under investigation.

The Vigilance Awareness Week was observed during the period from 28.10.2020 to 02.11.2020 in IBM HQ at Nagpur and in all zonal/regional offices of Indian Bureau of Mines as per directive of CVC.

7.5 Gender Equality

Women employees constitute about 12.65 percent of total strength of IBM. Training is imparted to women employees in the field of technical as well as administrative matters. A Committee has been constituted in IBM to redress the complaints made by the victims of sexual harassment at work place in a time bound manner.

7.6 RTI Applications

Status of disposal of RTI Applications/1st Appeal/2nd Appeal is given in following tables:

Table 7.5.1

RTI Application/Request Status (w. e. f. 1st April, 2020 to 31st March, 2021)

| Organizat ion | No. of Cases | | | | | Pendency | | | |
|------------------|-------------------|--|----------|---------|--|------------|------------|------------|--------------|
| | Previous Pendency | No. of RTI Applicati on/ Request during the period | Disposal | Balance | Information denied u/s 8(1), 9, 11, 24 & others of RTI Act | 0-3 months | 4-6 months | 7-9 months | 10-12 months |
| IBM | 6 | 510 | 503 | 13 | 12 | 13 | - | - | - |

Source: Information received from designated CPIO/AA of IBM.

Table 7.5.2
RTI Ist Appeal Request Status (w. e. f. 1st April, 2020 to 31st March, 2021)

| Organization | No. of Cases | | | | | Pendency | | | |
|--------------|-------------------|--|----------|---------|-------------------------------------|------------|------------|------------|--------------|
| | Previous Pendency | No. of I st Appeal received during the period | Disposal | Balance | No. Appeal rejected/Inf. denied u/s | 0-3 months | 4-6 months | 7-9 months | 10-12 months |
| IBM | 0 | 51 | 50 | 1 | 0 | 1 | - | - | - |

Source: Information received from designated CPIO/AA of IBM.

Table 7.5.3
CIC 2nd Appeal Status (w. e. f. 1st April, 2020 to 31st March, 2021)

| Organization | No. of Cases | | | | Balance |
|--------------|-----------------------------|---|------------------------|---------------------------|---------|
| | Previous Pendency | No. of 2 nd Appeals filed in CIC | Decided | | |
| | | | In favour of Appellant | In favour of Organization | |
| IBM | Current status is not known | | | | |

Source: Information received from designated CPIO/FAA of IBM.

7.7 Reservation of Vacancies for persons with Disabilities

IBM is strictly following the various instructions of the Government issued from time to time regarding reservation of vacancies for PWD,s in respect of Group 'A' and 'B' Gazetted posts. As on 31stMarch 2021, 12 physically handicapped persons were under employment in IBM.

7.8 Welfare activities for SC/ST, women, Minorities and PWD,s:

Smt. Maya Chintamanlnvate, Hon'ble Member, National Commission for Scheduled Tribes having the Status of Secretary to the Govt of India has officially visited Headquarters of Indian Bureau of Mines on 25.02.2020. The Hon'ble Member heard the common problems of ST employees and also personal problems. The Hon'ble Member was also briefed regarding sanctions strength, vis.a.vis., filled up strength in IBM and the ST employees in each group of IBM.

For Women: A committee under sexual harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 has been constituted in IBM to redress the complaints made by the victim of sexual harassment at work place in a time bound manner.

8.0 Indian Bureau of Mines: Celebration of events

8.1 I-Day Celebrations

IBM celebrated India's 74th Independence Day at its Headquarters with spirited aplomb.

Shri P.N. Sharma, Chief Controller of Mines (I/c), IBM, under whose stewardship the celebrations at IBM were organised, unfurled the National Tricolour and accompanied by a modest gathering of dignitaries, senior officers and staff members sang the National Anthem. In his brief address, Shri Sharma eloquently acknowledged the spirited enthusiasm of every IBM member towards organising & celebrating India's Independence Day and stressed the need to awaken the spirit of national unity and perform individual duties as way of service to the nation.

Further, narrating on the bleak scenario caused due to the spread of the pandemic, Shri Sharma said one should hold on to grit & firm resolve and look for opportunities to overcome the challenges thrown at us by circumstance no matter how adverse.

Delightfully conducted by Shri Nilesh Mahatme, the programmes of the day proceeded as per schedule with characteristic ease and concluded with firmly embedded notions of national pride.



Shri P.N. Sharma, Chief Controller of Mines (I/c), unfurling the flag and addressing the gathering

8.2 Republic Day celebrated in IBM offices

A gala programme was organised at IBM Headquarters to celebrate India's 72nd Republic Day. The programme of the day commenced with the unfurling of the National Flag by the Chief Controller of Mines (I/c), Shri P.N. Sharma, which was followed by the singing of the National Anthem.

In his address, Shri P.N. Sharma, welcomed all the officers and staff members present and congratulated IBM for showing great resilience and strength in facing and combating the difficult situations imposed by the pandemic. Shri Sharma further said that the Nation has been striving ahead in spite of the chaos created by the COVID-19 spread and the Government despite restrictions has been bravely implementing reforms in every segment of governance. He further said that in the broad scheme of development and reforms, Mining Sector would have a very important role to play and IBM being a premier organisation would have clearly chalked out paths to steer the Sector and for this it would become incumbent upon all IBM officials to shoulder greater responsibilities and contribute to their fullest. Several senior officers of IBM including Dr Y.G. Kale, Head of Office, Dr P.K. Jain, Chief Mineral Economist, Shri S.K. Adhikari, Chief Mining Geologist, et al. were present during the function. The Programme of the day, elegantly compared by Shri Nilesh Mahatme, drew to a close on a highly spirited note. Earlier, to mark the occasion, the entire IBM Headquarter-building and its premises were spruced up and embellished with modishly lit brilliant illuminations.



Shri P.N. Sharma, Chief Controller of Mines (I/c), unfurling the flag and the glimpses of the gathering

8.3 IBM Foundation Day, KhanijDiwas

8.3.1 IBM Headquarters, Nagpur

Indian Bureau of Mines in commemoration of its 74th Foundation Day on 1st March 2021 observed the Day as KhanijDiwas. To mark the occasion a bunch of events was conducted and a grand online function was organised at its Headquarters in Nagpur on 1st March 2021.

This year in compliance with the fresh norms put out by the Civic Authorities on account of the resurgence of Covid-19 cases in Nagpur and restrictions imposed thereof, it was decided to hold the celebrations of IBM's Foundation Day in a virtual mode. To mark the occasion the events of the day were organised online. This year for the first time the function to commemorate IBM's Foundation Day, i.e., Khanij Diwas was organised through web support digitally via dedicated web links created for this purpose. The entire Bureau got web-connected and about 100 participants located at different parts of the country were unified digitally to witness the proceedings of the function.

The dignitaries who adorned the digital platform to grace the occasion included Shri Sanjay Lohiya, Joint Secretary to the Govt of India & Controller General (I/c) IBM; Shri P.N. Sharma, Chief Controller of Mine- MDR (I/c); Shri Shri Pankaj Kulshrestha, Chief Controller of Mines-MES (I/c) and Dr P.K. Jain, Chief Mineral Economist & Head of the Organising Committee. The digital dais was also graciously occupied by Dr D.K. Sinha, Director, Atomic Mineral Directorate for Exploration & Research, Hyderabad, as Chief Guest of the occasion and Dr Ashok Nandi, Consultant at Mineral Information & Development Centre, Nagpur, was the Guest of Honour. Besides, a host of special invitees that included the former Controller General, IBM, Smt Indira Ravindran honoured the programme with their dignified presence. The programme interlinked by web support had participants from across the country from all Regional Offices, Zonal Offices and Ore Dressing Laboratories besides a sizeable number from the Headquarters of IBM. Addressing the audience from Hyderabad, the Chief Guest, Dr D.K. Sinha, congratulated IBM for putting behind 73 years of exemplary service and for its transformation into a Premier Organisation of Govt of India that controls & regulates mines & mineral development activities in the country. Stressing that IBM and AMD share a common past, Dr Sinha traced the areas of commonality between IBM and AMD. Complimenting IBM for serving the Nation's cause by

its efficient management of the country's mineral resources, Dr Sinha made special mention of Mining Surveillance System and Star-rating System of Mines. Extending best wishes on IBM's Foundation Day, Dr Sinha said the potential of IBM should get unfolded in areas of technological innovations in the mineral administration systems.


Speaking on the occasion, the Guest of Honour Ashok Nandi showered praise on IBM for its 74rd Foundation Day and laid emphasis on synergies that are must between various entities in the field of mining & mineral development. Dr Nandi in his Technical Lecture recounted the various aspects of mining especially bauxite operations and outlined the specificities of alumina plants in India and compared them with that of the world in his presentation titled "A Glimpse of Worldwide Bauxite-Alumina Industry and Prospects in India" • . Dr Nandi elaborately explained the bauxite-alumina-aluminium value chain and compared India's status in demand-supply of bauxite with that of other countries. Highlighting that India has tremendous potentialities to meet the target of 10 mtpa production of aluminium, he said improved technology in beneficiation of low-grade ore and discovery of new economically viable deposits of bauxite could help achieving this end. Delivering the Presidential address, Shri Sanjay Lohiya, Joint Secretary to the Govt of India & Controller General (I/c) IBM, described the day as momentous one that signifies IBM's status as the country's foremost organisation of excellence. He spoke on the forays made by IBM in various technological fronts in its endeavour to efficiently govern the mining & mineral development activities in the country. The need to be in tune with time and integrating the technological knowhow in diverse aspects to improvise the Mineral Regime of the country must get top of IBM's agenda of growth, he said. Shri Lohiya extended greetings on behalf of IBM to all the assembled dignitaries, ex-colleagues and serving members of IBM family. In his brief introductory address, Shri P.N. Sharma, Chief Controller of Mines-MDR (I/c), IBM, welcomed the distinguished dignitaries, ex-colleagues & guests and provided a gist of IBM's growth trajectory from its inception to the present and Shri Pankaj Kulshrestha, Chief Controller of Mine-MES (I/c), listed out the achievements of IBM and highlighted that the present circumstance has become challenging and the need for buckling up and facing the challenges would require great resolve and converging of competencies in all domains under minerals and mining.

Earlier, in his inaugural address, Dr P.K. Jain, Chief Mineral Economist, briefed the audience regarding the special efforts that had to be put for organising the

programme on account of the prevailing pandemic situation. He also traced the paths of IBM's growth trajectory and mentioned the various milestone-achievements and watershed moments that IBM had surpassed in its illustrious existence.

The programme of the day conducted under the stewardship of Shri Sanjay Lohiya, Joint Secretary to the Govt of India & Controller General (I/c) IBM was compered by Smt Deepti Chaurasia, and the vote of thanks was proposed by Shri Gourav Sharma, Deputy Mineral Economist, IBM.

संजय लोहिया, आईएएस
संयुक्त सचिव
SANJAY LOHIYA, IAS
Joint Secretary



सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
खान मंत्रालय
MINISTRY OF MINES
Tel. : +91-11-23387158, 23383104
Email : sanjay.lohiya@gov.in
26 Feb 2021

Message


Life's profoundest moments are the ones where you are witness to the birth or growth or achieving of splendour of any entity be it life form or structural form.

It is heartening to know that once a small fragmented office dedicated to mines & minerals – bearing the appellation INDIAN BUREAU OF MINES – has grown and matured into a huge establishment playing significant part in the conservation, development and utilisation of Nation's Mineral Wealth.

I'm indeed happy to note that Indian Bureau of Mines is observing "Khanij Diwas" in commemoration of its 74th Foundation Day on 1st March 2021.

It is a matter of immense satisfaction to learn that IBM during the course of its 74 years has grown not only in stature but has become an organisation of strategic importance and eminence and is pivotal now to the growth & development of the Mineral Industry of the country. IBM has surpassed many benchmarks, its role as a harbinger for innovation, method and incorporation of technology in the Mineral & Mining Sector is well-known.

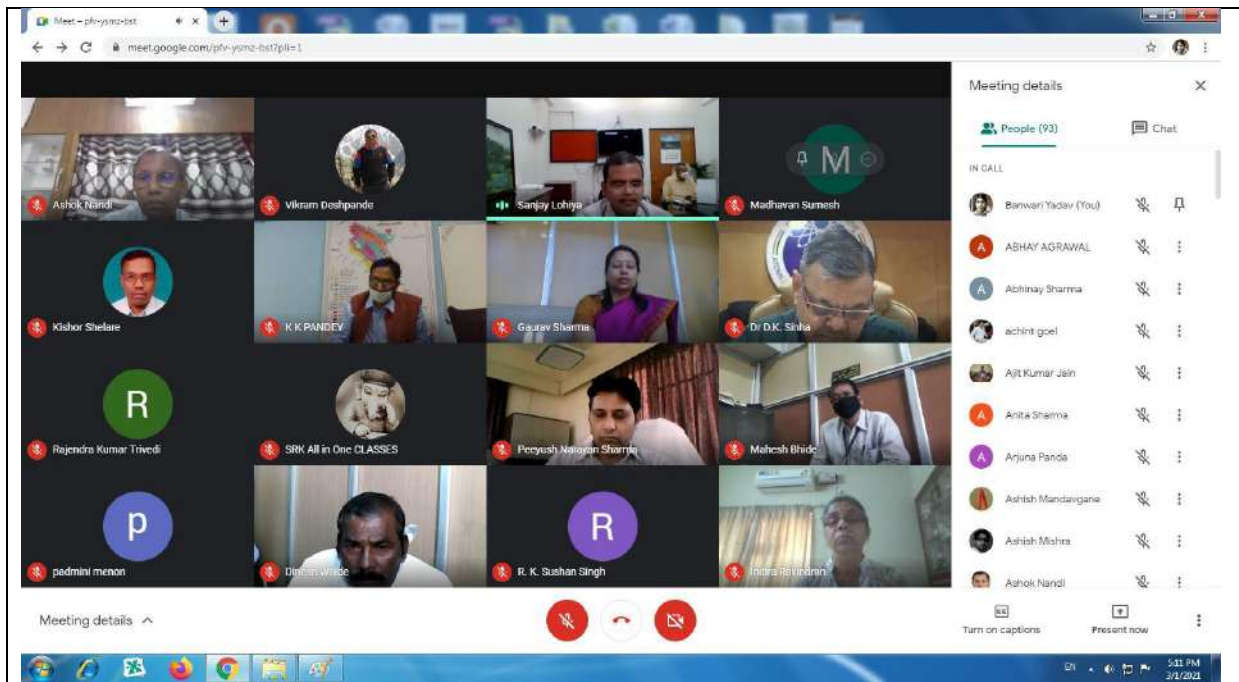
I congratulate and compliment the leadership at every level of the organisation and their supporting teams in the Headquarters and all Regional offices on this memorable occasion and extend my heartiest best wishes for the Organisation's Foundation Day Celebrations.



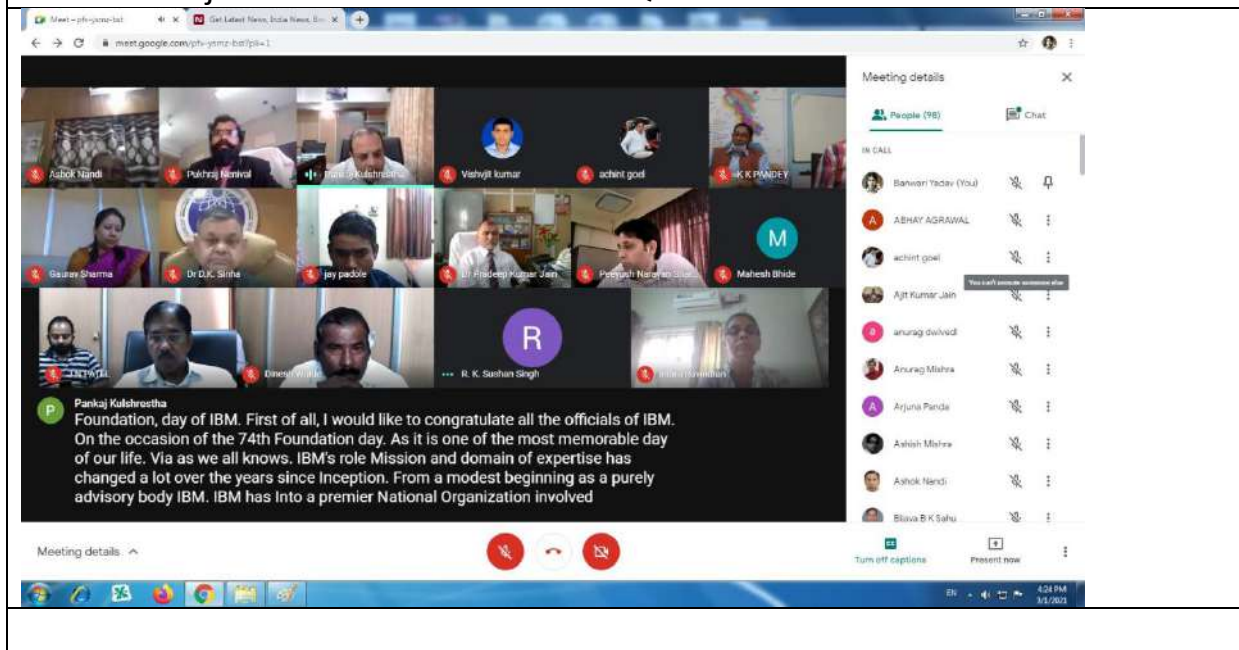
(Sanjay Lohiya)
Joint Secretary &
Controller General In Charge

327, 'ए' विंग, शास्त्री भवन, नई दिल्ली-110001
327 'A' Wing, Shastri Bhawan, New Delhi-110 001

Message of Controller General in charge



Online Khanij Divas celebration at IBM HQ



8.3.2 Khanij Divas Celebrations at Regional Office, Ranchi

The Foundation Day of IBM was celebrated as “Khanij Divas” on 01/03/2021 at Regional Office, Ranchi, IBM. To mark the occasion, the Regional Office premise was decked up with floral decorations and a colourful floral “Rangoli” was put on display at the entrance of the office. The programme of the day, carried out in complete adherence to the COVID-19 guidelines, commenced at 10.30 a.m. by lighting of the traditional lamp by all the dignitaries present on the occasion. Special invitees from various organizations viz. M/s Steel

Authority of India Ltd, Tata Steel Ltd, Hindustan Copper Ltd and HINDALCO were also present in the function. Shri O.P. Gopal, RMG, presented the inaugural address which was followed by brief presentations by representatives of M/s Steel Authority of India Ltd, Tata Steel Ltd, Hindustan Copper Ltd and HINDALCO. Each of these presentations highlighted the specific works carried out in this region for scientific development of the mineral deposits, conservation of minerals and protection of environment, as per the guidelines of MCDR 2017. In his presidential address, Shri P.K. Bhattacharjee, RCOM, Ranchi, thanked the dignitaries and all the assembled guests and spoke on the different achievements accomplished by IBM specifically highlighting the progressive measures implemented by IBM's Ranchi Office in the region. The programme drew to a close with the presentation of vote of thanks by Shri B.P. Kerketta, Sr. ACOM.



8.4 Vigilance Awareness Week

Vigilance Awareness Week (VAW) was observed at IBM HQ and at all Zonal/Regional Offices & RODL from 27th October, 2020 to 2nd November, 2020. The Observation of VAW-2020 commenced with administering on-line integrity pledge by the Controller General (In-charge) at 11.00 am in Hindi & English and the same was followed by respective Divisional Heads / Regional Heads to their officers and staff at their respective section on 27.10.2020 at 11.30 am. Messages of Dignitaries were read after Integrity pledge by Divisional / Regional Heads. All the norms of Covid-19 i.e. social distancing etc. have been followed and function was attended by officials through online mode. Essay and Poster competitions were held during the VAW.

Further, to promote awareness on vigilance, a Lecture Session was organized on 02.11.2020 to sensitize the officers and staff of Indian Bureau of Mines through video conference. Furthermore, the rules guidelines in pertinent matters as issued from time to time by DOPT, CVC, etc. have been circulated through Head of Office, IBM to all Zonal & Regional Offices of IBM. As per standard procedure guidelines issued by GOI on Covid-19 pandemic, various programs such as Essay, Debate, Quiz, Poster, Slogan, Speech competitions were organized in all the Zonal / regional / Sub-Regional Offices of IBM on the occasion of Vigilance Awareness Week,2020. E-Magazine, “Prahari” on the theme “Satark Bharat, Samridh Bharat” (“Vigilance India, Prosperous India”) was released by the Joint Secretary and Controller General (I/c), IBM, on the Concluding Day Function held on 02.11.2020. Swachh Bharat Abhiyan

8.5 Similarly “Rashtriya Ekta Divas or National Unity Day” was also observed on 31st October, 2020 to commemorate the birth anniversary of Sardar Vallabhbhai Patel, the architect of national integration of independent India.

8.6 Constitution Day

Constitution Day was celebrated at Indian Bureau of Mines HQ and other regional offices on 26th November 2020. The programme was held with due care by following the guidelines and the norms of Covid-19 i.e. social distancing etc.

At IBM HQ, Dr. Y.G. Kale, Regional Controller of Mines and Head of Office explained about the significance and history behind the observance of Constitution Day. This was followed by reading out of Preamble of Constitution of India in Hindi by him.

Shri PN Sharma, CCOM (MDR) read out the preamble in English, extended his warm compliments and spoke about the efforts taken by our leaders to bring out one of the best Constitution in the world. Shri Pankaj Kulshreshta, CCOM (MES) addressed the gathering emphasizing on the Fundamental Duties of citizen as enumerated in the Constitution of India. He spoke at length narrating the duties to be followed by every citizen of the country.

The speakers also discussed important issues like need for & history of the Constitution, legal luminaries carving the Constitution, Role of Judiciary in Constitution and fundamental rights and duties of Indian citizen as per Constitution. Employees from all sections of IBM have attended the event.

रायपुर कार्यालय में मनाया संविधान दिवस

मुख्यालय के निर्देशानुसार भारतीय खान ब्यूरो के रायपुर क्षेत्रीय कार्यालय में संविधान दिवस मनाया गया. उपरोक्त कार्यक्रम की अध्यक्षता कार्यालय प्रमुख एवं क्षेत्रीय खान नियंत्रक श्री बी एल गुर्जर ने की. सहायक खनन अभियंता श्री अभिषेक रंजन गौतम ने स्वागत भाषण में सभी को संविधान दिवस की बधाई देते हुए कार्यक्रम की रूपरेखा प्रस्तुत की. वरिष्ठ खनन भूविज्ञानी श्री आर.एन. मिश्र ने उपस्थितों को संविधान दिवस की शपथ दिलाई. इस अवसर पर श्री गुर्जर ने संविधान दिवस पर अपने विचार व्यक्त किए. धन्यवाद ज्ञापन के साथ कार्यक्रम का समापन हुआ.



8.7 Yoga Day

On the occasion of International Yoga Day employees of IBM at H/Q as well as at Regional offices took part in observance of the occasion on 21st June,2020 with their family members at their home as per Govt. of India direction.

8.8 Swachhata Pakhwada

As per directives received from the Ministry, Swachhata Pakhwada was observed from 16th to 30th Nov 2020 at all Zonal/Divisional/Regional offices and Ore Dressing Labs. The activities as enumerated in Ministry's O.M. dated 09.11.2020 had been taken up during the Pakhwada. In the Mineral Processing Division of IBM at Hingna various events were organised as cleaning of the office and sanitizing, tree plantation in the office premises, distribution of soaps, sanitizers, phenyl, masks etc to nearby slum areas families and generating awareness amongst them for wearing masks, following social distancing and cleaning hands.

8.9 Women's Day celebration

To applaud the involvement and achievement of women in the society Indian Bureau of Mines inaugurated International Women's Day on 8th March 2021. On 10th March 2021, the program continued with the talk by eminent women speakers on current UN Theme, "Women in leadership: Achieving an equal future in a COVID-19 world".

The function of International Women's Day 2021 observed virtually in compliance with Government mandate COVID-19 pandemic guidelines put out by civic authorities, Nagpur. The bureau connected online to witness the proceedings of the function. Dr. (Smt.) Sandhya Lal, Director (OD) (I/c) & CODO, presided the function.

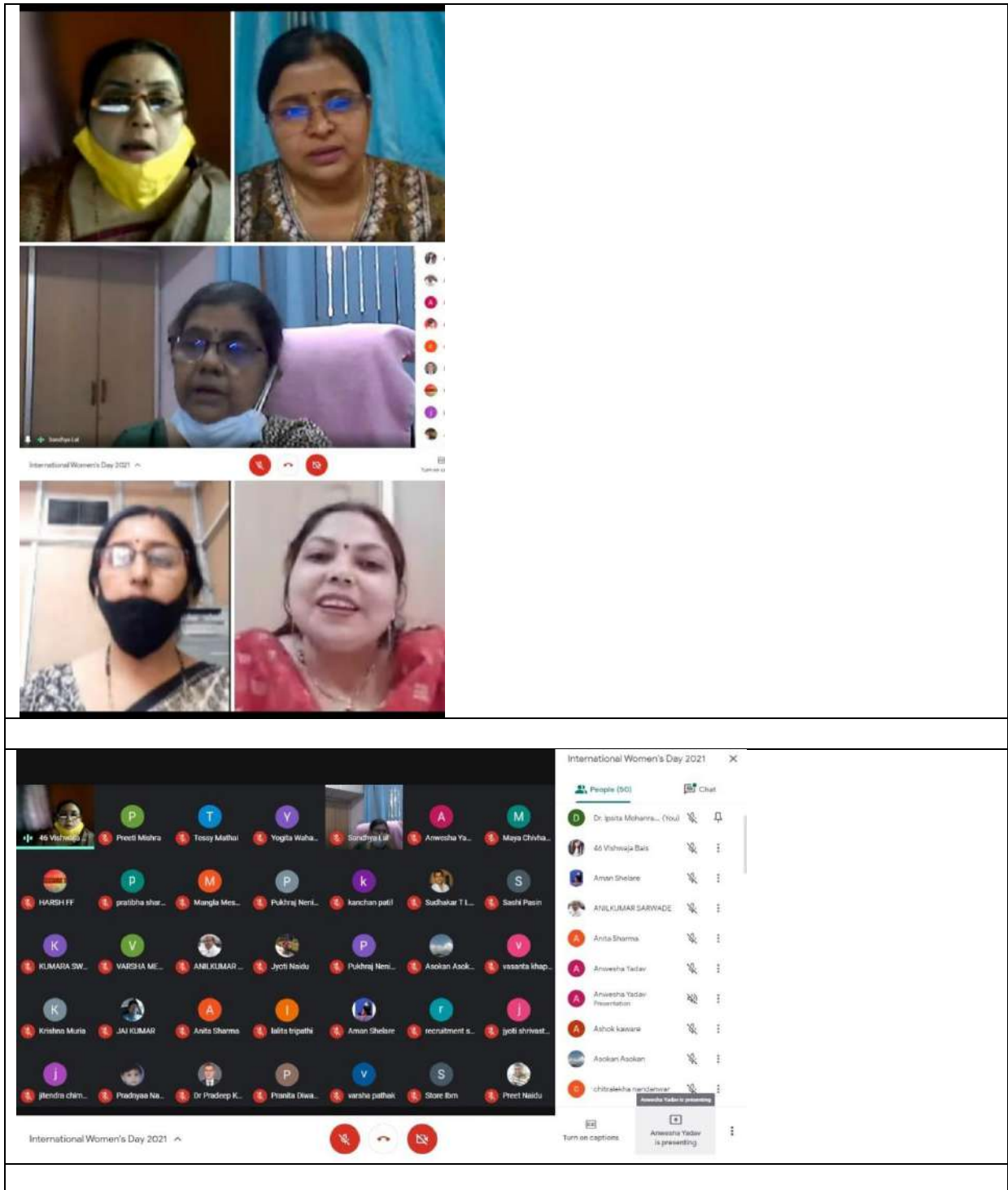
Dr. (Smt.) Pragya Yadav, Scientist 'E', ICMR, National Institute of Virology, Pune, as Chief Guest, delivered a talk on involvement of women in frontline while developing the COVID -19 vaccine irrespective of their multiple roles. In her talk she shared her experience and the involvement of 50% of women scientist working in NIV, Pune in developing indigenous COVID-19 vaccine successfully in India, though being a developing country.

Smt. Chandrika K. Bais, Hon'ble Judge, DCDRF, Nagpur (Guest of Honour) emphasized on struggle of women during COVID-19 pandemic and legal rights of women as a consumer.

Dr. (Smt.) Sandhya Lal, Director (OD) (I/c) & CODO, in her presidential address, highlighted on the equality of women and leadership in various disciplines. She congratulated women officials for the occasion and expressed her gratitude to Chief Guest and Guest of Honour for their exhaustive contribution in the development of society.

Dr. Smt. Jyoti Shrivastava, Senior Chemist & President Women's Committee gave insight in the leadership of women to confront the COVID-19 pandemic outbreak worldwide efficiently.

The programme of the day was coordinated by Dr. Ipsita Mohanram, Assistant Ore Dressing Officer, MPD & Vice President Women's Committee and compered by Smt. Preeti Mishra, JTA (Chemical) and vote of thanks was proposed by Miss. Prathama Diwakar, JTA (MPD).



8.10 Important Meetings

8.10.1 Review Meeting: Hon'ble Minister of Mines, chaired IBM's review meeting on 1st May 2020, through VC and during interaction, directed to take action on following points:

1. Beneficiation studies during last three years and contribution to the mineral sector through its adoption by industry; Synopsis of work on recovery of Gold from KGF tailing dumps and specific contribution of IBM and the comparative analysis of its difference with the project undertaken by NFTDC studies; Brief details of sample analysis/studies of G2 level samples analysis and its application.
2. Action plan for 2024 towards import substitution, stoppage of exports of raw ore and increased exports of value added products, in keeping with the goal of five trillion economy; timelines on beneficiation study for upgrading/value addition of low grade/sub grade iron ore stacks lying at pit head to the tune of 160 MT: Time lines for preparation of various reports and publications of 2019-20; digitization/preparation and uploading of on-line training modules/courses/course materials etc.
3. Details of adoption of international best practices and state of the art technology.
4. Mineral wise/State wise working mines, no of returns received and considered for ASP calculation. Statutory provisions for taking action on miners who are not submitting the returns in time. Action plan and time lines to publish the ASP within 45 days, as committed during the meeting.

8.10.2 Review of Performance of IBM by Secretary (Mines) on 1.12.2020

Shri Anil Kumar Jain, Secretary (Mines) chaired a meeting through video conferencing on 01.12.2020 to review performance of IBM. Shri Sanjay Lohiya, Joint Secretary, Ministry of Mines & Controller General (In-charge), IBM also joined the meeting with Secretary (Mines) at New Delhi. CCOM in charge MDR division made a presentation on core activities of IBM.

8.10.3 Meeting chaired by Secretary (Mines) on 2.2.2021

Shri Alok Tandon, Secretary, Ministry of Mines chaired a meeting with divisional heads of IBM through video conferencing on 02.02.2021. Shri Sanjay Lohiya, Joint Secretary & CG, I/c IBM also joined the meeting with Secretary (Mines) at Delhi. Shri P.N. Sharma, CCOM, In-charge (MDR) gave a power point presentation on IBM activities and responsibilities of various divisions of IBM

and performance during the year 2020-21 up to January 2021. During the course of presentation, Secretary (Mines) has shown keen interest on specific matters like Mining Surveillance System, Mining Tenement System, beneficiation of low grade ores etc. CG, I/c IBM explained the initiatives taken by Ministry of Mines and IBM. Secretary (Mines) appreciated the presentation.

8.10.4 Core Committee Meeting of Mining Tenement System (MTS)

The 7th Core Committee meeting of MTS was held on 18th February, 2021 at 3.00 PM through VC under the Chairmanship of Secretary (Mines). The meeting dealt with issues approving the termination of agreement / contract with Wipro as implementing agency and with NISG as PMU cum SCU for MTS.

8.10.5 Meeting with NIC to discuss future action plan for MTS

A meeting through Video Conferencing was held on 15.02.2021 under the chairmanship of CG, IBM with NIC for devising Action Plan for upgrading Registration and Return portals by NIC and development of Faceless approval system for Mining Plan in IBM.

9.0 Work related to Hindi

हिंदी का प्रगामी प्रयोग

भारतीय खान ब्यूरो अपने मुख्यालय तथा सभी अधीनस्थ कार्यालयों में भारत सरकार की राजभाषा नीति को प्रभावी ढंग से कार्यान्वित कर रहा है। भारतीय खान ब्यूरो का मुख्यालय नागपुर, महाराष्ट्र में है जो 'ख' क्षेत्र में स्थित है। कार्यालय अधीनस्थ 06 'क' क्षेत्र में, कार्यालय अधीनस्थ 01 'ख' क्षेत्र में तथा शेष कार्यालय अधीनस्थ 08 'ग' क्षेत्र में स्थित है। भारतीय खान ब्यूरो के सभी अधीनस्थ कार्यालयों ने राजभाषा विभाग के वार्षिक कार्यक्रम उल्लिखित

लक्ष्यों को प्राप्त कर लिया है। वर्ष 21-2020 के दौरान हिंदी कार्यान्वयन से संबंधित प्रगति का विवरण निम्न प्रकार है -:

9.1 मुख्यालय में विभागीय राजभाषा कार्यान्वयन समिति की बैठक का आयोजन

9.1.1 विभागीय राजभाषा कार्यान्वयन समिति की 114 वीं बैठक का आयोजन

विभागीय राजभाषा कार्यान्वयन समिति, भारतीय खान ब्यूरो (मुख्यालय), नागपुर की 114 वीं बैठक श्री एस. के. अधिकारी, मुख्यखनन भूविज्ञानीकी अध्यक्षता में 29 जून 2020 को आयोजित की गई। अध्यक्ष महोदय एवं अन्य सदस्यों के स्वागतपश्चात् अध्यक्ष महोदय की अनुमति से डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा बैठक की कार्यवाही प्रारंभ की गई। कार्य सूची अनुसार बैठक में पिछली बैठक के कार्यवृत्त पर की गई अनुवर्ती कार्रवाई एवं कार्यवृत्त की पुष्टि की गई।

इसके पश्चात् जनवरी - मार्च, 2020 अवधि की मुख्यालय एवं अधीनस्थ कार्यालयों की तिमाही रिपोर्ट की समीक्षा की गई। संसदीय राजभाषा समिति को हैदराबाद क्षेत्रीय कार्यालय के निरीक्षण के दौरान दिए गए आश्वासन के आलोक में भारतीय खान ब्यूरो मुख्यालय नागपुर द्वारा हैदराबाद क्षेत्रीय कार्यालय के साथ हिंदी पत्राचार बढ़ाना, मुख्यालय में हिंदी कार्यशाला आयोजित करने हेतु निर्णय, अत्याधिक हिंदी टंकण कार्य एवं अन्य प्रशासन संबंधी कार्य और फाइलों के रख-रखाव हेतु हिंदी अनुभाग में नियमित हिंदी टंकण या अवर श्रेणी लिपिक की तैनाती, उप निदेशक (राजभाषा) एवं सहायक निदेशक (राजभाषा) की तैनाती आदि महत्वपूर्ण विषयों पर विस्तृत चर्चा की गई।

अंत में अध्यक्ष महोदय एवं सभी सदस्यों का आभार श्री अभिनय कुमार शर्मा, सहायक संपादक, हिंदी अनुभाग, भारतीय खान ब्यूरो, नागपुर ने व्यक्त किया।



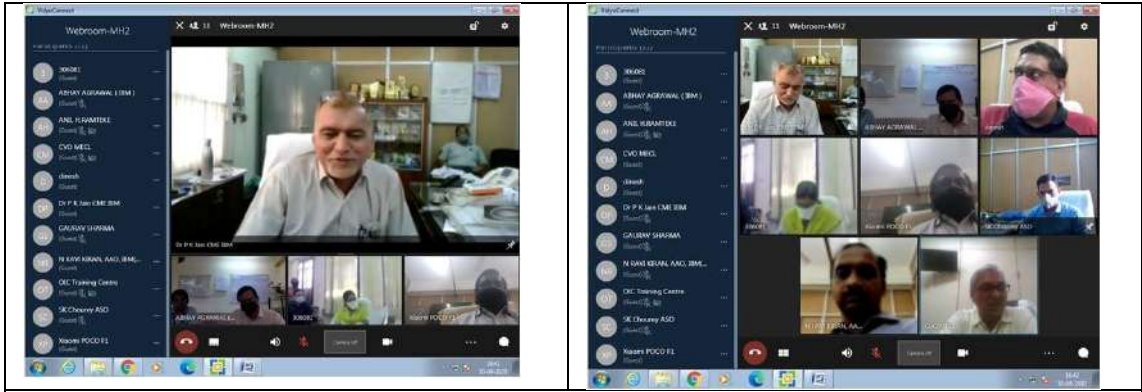
विभागीय राजभाषा कार्यान्वयन समिति की 114 वीं बैठक का आयोजन

9.1.2 विभागीय राजभाषा कार्यान्वयन समितिकी 115 वीं बैठक का आयोजन

विभागीय राजभाषा कार्यान्वयन समिति, भारतीय खान ब्यूरो (मुख्यालय), नागपुर की 115 वीं बैठक डॉ. (श्रीमती) संध्या लाल, निदेशक (अ.प्र.) प्रभारी की अध्यक्षता में 30 सितंबर 2020 को वेब – लिंक के माध्यम से ऑन लाईन आयोजित की गई। अध्यक्ष महोदय एवं अन्य सदस्यों के स्वागत के पश्चात अध्यक्ष महोदय की अनुमति से डॉ. पी. के. जैन, मुख्यखनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा बैठक की कार्यवाही प्रारंभ की गई। कार्य सूची अनुसार बैठक में पिछली बैठक (114 वीं) के कार्यवृत्ती पर की गई अनुवर्ती कार्रवाई एवं कार्यवृत्त की पुष्टि की गई। इसके पश्चात अप्रैल – जून, 2020 अवधि की मुख्यालय एवं अधिनस्थकार्यालयों की तिमाही रिपोर्ट की समीक्षा की गई।

संसदीय राजभाषा समिति को हैदराबाद क्षेत्रीय कार्यालय के निरीक्षण के दौरान दिए गए आश्वासन के आलोक में भारतीय खान ब्यूरो मुख्यालय नागपुर द्वारा हैदराबाद क्षेत्रीय कार्यालय के साथ हिंदी पत्राचार बढ़ाना, उप निदेशक (राजभाषा) एवं सहायक निदेशक (राजभाषा) की तैनाती एवं गृह - पत्रिका 'खान भारती' के 2020 के प्रथम अंक (6वां) के प्रकाशन हेतु समयबद्ध कार्य योजना आदि महत्वपूर्ण विषयों पर विस्तृत चर्चा की गई।

अंत में अध्यक्ष महोदय एवं सभी सदस्यों का आभार श्री अभिनय कुमार शर्मा, सहायक संपादक, हिंदी अनुभाग, भारतीय खान ब्यूरो, नागपुर ने व्यक्त किया।



विभागीय राजभाषा कार्यान्वयन समितिकी 115 वीं बैठक का आयोजन

9.1.3 विभागीय राजभाषा कार्यान्वयन समिति की 116 वीं बैठक का आयोजन

विभागीय राजभाषा कार्यान्वयन समिति, भारतीय खान ब्यूरो (मुख्यालय) की 116वीं बैठक का आयोजन श्री पी. एन. शर्मा, मुख्य खान नियंत्रक प्रभारी की अध्यक्षता में 1 जनवरी 2021 को आयोजित की गई। अध्यक्ष महोदय एवं अन्य सदस्यों के स्वागत के पश्चात अध्यक्ष महोदय की अनुमति से डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा बैठक की कार्यवाही प्रारंभ की गई। कार्य सूची अनुसार बैठक में पिछली बैठक (115वीं) के कार्यवृत्त पर की गई अनुवर्ती कार्रवाई एवं कार्यवृत्त की पुष्टि की गई। इसके पश्चात जुलाई - सितंबर, 2020 अवधि की मुख्यालय एवं अधिनस्थ कार्यालयों की तिमाही रिपोर्ट की समीक्षा की गई।

संसदीय राजभाषा समिति को हैदराबाद क्षेत्रीय कार्यालय के निरीक्षण के दौरान दिए गए आश्वासन के आलोक में भारतीय खान ब्यूरो मुख्यालय नागपुर द्वारा हैदराबाद क्षेत्रीय कार्यालय के साथ हिंदी पत्राचार बढ़ाना, उप निदेशक (राजभाषा) एवं सहायक निदेशक (राजभाषा) की तैनाती एवं अधीनस्था कार्यालयों का ऑनलाइन राजभाषा निरीक्षण आदि महत्वपूर्ण विषयों पर विस्तृत चर्चा की गई।



विभागीय राजभाषा कार्यान्वयन समितिकी 116 वीं बैठक का आयोजन

9.2 हिंदी पखवाड़ा -2020

9.2.1 भारतीय खान ब्यूरो मुख्यालय में हिंदी पखवाड़ा – 2020 का शुभारंभ

महानियंत्रक (प्रभारी) भारतीय खान ब्यूरो के निर्देशानुसार श्री पी. एन. शर्मा, मुख्य खान नियंत्रक (प्रभारी) भारतीय खान ब्यूरो की अध्यक्षता में भारतीय खान ब्यूरो (मुख्यालय), नागपुर में 14 सितंबर को हिंदी पखवाड़ा – 2020 का ऑनलाइन उद्घाटन किया गया तथा साथ ही हिंदी दिवस का भी आयोजन किया गया। इस अवसर पर भारतीय खान ब्यूरो के शीर्ष अधिकारीगण वेब-लिंक के माध्यम से जुड़े एवं कार्यक्रम में भाग लिया। इनमें डॉ. (श्रीमती) संध्या लाल, निदेशक (अयस्का प्रसाधन), श्री एस. के. अधिकारी, मुख्य खनन भूविज्ञानी, डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी, श्री अभय अग्रवाल, क्षेत्रीय खान नियंत्रक एवं तकनीकी सचिव तथा श्री वाय. जी. काले, क्षेत्रीय खान नियंत्रक एवं कार्यालय अध्यक्ष और उनके अधीनस्थ अधिकारियों एवं कर्मचारियों ने प्रमुख रूप से भागीदारी की।

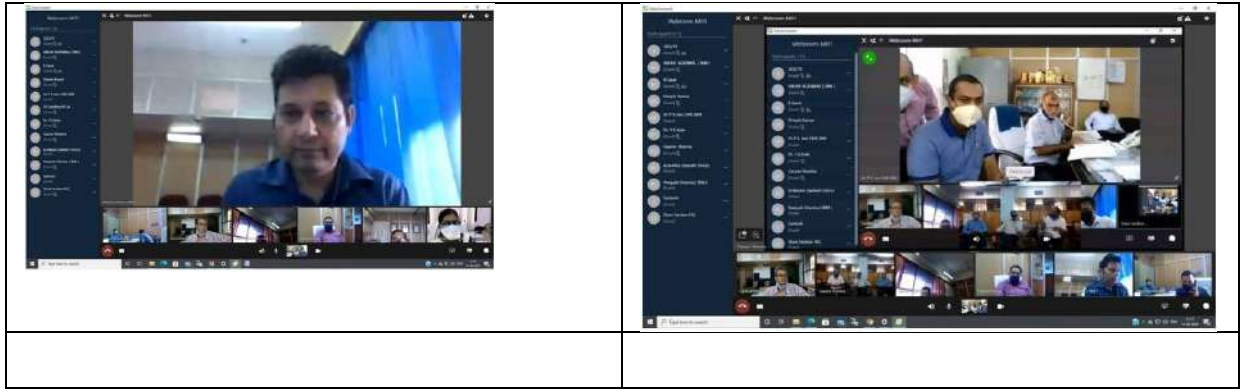
कार्यक्रम के आरंभ में डॉ. पी. के. जैन, राजभाषा अधिकारी द्वारा माननीय संसदीय कार्य, कोयला तथा खान मंत्री, भारत सरकार श्री प्रल्हाद जोशी जी का संदेश वाचन किया गया। श्री पी. एन. शर्मा द्वारा माननीय गृह मंत्री, भारत सरकार श्री अमित शाह जी का संदेश पढ़ा गया।

अपने अध्यक्षीय भाषण में श्री पी. एन. शर्मा ने दैनंदिन कार्यालयीन कार्य अधिकाधिक हिंदी में ही करने पर बल दिया। साथ ही उन्होंने कहा कि हिंदी हमारी निज भाषा है तथा यह भाषा अपनी भावनाओं को व्यक्त करने का एक सशक्त माध्यम है। उन्होंने आगे कहा कि हिंदी का संघर्ष कभी भी भारत के अन्यभाषाओं से नहीं रहा है बल्कि हिंदी भाषा ने अन्य भारतीय भाषाओं को भी बल प्रदान किया है।

इसके पूर्व राजभाषा अधिकारी डॉ. पी. के. जैन ने स्वागत भाषण दिया तथा भारतीय खान ब्यूरो कार्यालय की हिंदी प्रगति रिपोर्ट प्रस्तुत की जिसके अंतर्गत वर्ष भर कालेखा – जोखा प्रस्तुत किया गया। तत्पश्चात उन्होंने हिंदी पखवाड़ा के दौरान आयोजित होने वाली विभिन्न प्रतियोगिताओं की जानकारी दी।

हिंदी पखवाड़े के दौरान हिंदी निबंध, टिप्पण आलेखन, हिंदी अनुवाद, तात्कालिक वाक एवं हिंदी शुद्धलेखन प्रतियोगिताओं का आयोजन ऑनलाइन रूप से किया जाएगा।

हिंदी पखवाड़ा के उद्घाटन समारोह का संचालन एवं धन्यवाद ज्ञापन श्री अभिनय कुमार शर्मा, सहायक संपादक द्वारा दिया गया। उद्घाटन समारोह की सफलता हेतु हिंदी अनुभाग की श्रीमती मिताली चटर्ली, वरिष्ठ अनुवाद अधिकारी, श्री असीम कुमार, कनिष्ठ हिंदी अनुवाद अधिकारी, श्री किशोर डी. पारधी, कनिष्ठ अनुवाद अधिकारी, श्री प्रदीप कुमार सिन्हा, अवर श्रेणी लिपिक, श्री एन. एम. मोरे, प्रेसमैन तथा श्री ए. के. नाल्हे, एम. टी. एस. ने अपना पूर्ण योगदान दिया।



9.2.2 रायपुर में हिंदी पखवाड़ा का आयोजन

रायपुर क्षेत्रीय कार्यालय में क्षेत्रीय खान नियंत्रक श्री बी.एल.गुर्जर की अध्यक्षता में हिंदी पखवाड़ा का उद्घाटन समारोह आयोजित किया गया. इस अवसर पर वरिष्ठ सहायक खान नियंत्रक एवं हिंदी संपर्क अधिकारी श्री आर.के.दास ने माननीय गृहमंत्री श्री अमित शाह का संदेश पढ़कर सुनाया. तत्पश्चात पखवाड़े के दौरान आयोजित की जाने वाली प्रतियोगिता की जानकारी दी गई. पखवाड़े के दौरान निबंध प्रतियोगिता, सामान्य ज्ञान प्रतियोगिता तथा अनुवाद प्रतियोगिता का आयोजन किया गया.

पुरस्कार वितरण समारोह के साथ हिंदी पखवाड़ा का सफल समापन हुआ.

9.2.3 देहरादून में हिंदी पखवाड़ा संपन्न

भारतीय खान ब्यूरो के क्षेत्रीय कार्यालय देहरादून में 4 से 17 सितंबर के दौरान हिंदी पखवाड़ा का आयोजन किया गया. पखवाड़े का उद्घाटन सहायक खनन भूवैज्ञानिक एवं हिंदी संपर्क अधिकारी श्री शैलेन्द्र सकलानी ने किया.

हिंदी दिवस के अवसर पर श्री सकलानी ने माननीय गृहमंत्री श्री अमित शाह तथा भारत सरकार के मंत्रिमंडल सचिव श्री राजीव गौबा का संदेश पढ़कर सुनाया.

इस अवसर पर निजी सचिव श्री नंदनसिंह ने पखवाड़े के दौरान आयोजित की जाने वाली प्रतियोगिताओं की जानकारी दी.

पखवाड़े के दौरान सहायक प्रशासनिक अधिकारी श्री अनिल कुमार चंदेल ने हिंदी शब्दावली प्रतियोगिता का आयोजन किया. हिंदी श्रुतलेख प्रतियोगिता का आयोजन सहायक खनन भूविज्ञानी एवं हिंदी संपर्क अधिकारी श्री शैलेन्द्र सकलानी ने किया. इसी प्रकार हिंदी टिप्पण आलेखन, हिंदी से संबंधित सामान्य ज्ञान प्रतियोगिता, कविता पाठ तथा हिंदी निबंध प्रतियोगिता का भी आयोजन किया गया. सभी ने प्रतियोगिताओं में बढ़चढ़कर हिस्सा लिया.

पखवाड़े का समापन क्षेत्रीय नियंत्रक की अध्यक्षता में वीडियो कॉन्फरेंसिंग के जरीए हुआ. अंत में श्री शैलेन्द्र सकलानी, हिंदी अधिकारी ने धन्यवाद ज्ञापन प्रस्तुत किया. श्री नन्दनसिंह के कविता पाठ के साथ हिंदी पखवाड़ा समाप्त हुआ.



9.2.4 बेंगलूर में हिंदी पखवाड़े पर विभिन्न प्रतियोगिता का आयोजन

भारतीय खान ब्यूरो, बेंगलूर के आंचलिक, क्षेत्रीय एवं क्षेत्रीय खनिज प्रसंस्करण प्रयोगशाला कार्यालय में सम्मिलित रूप से 14 से 29 सितंबर के दौरान हिंदी पखवाड़ा मनाया गया. वर्तमान परिस्थिती को देखते हुए "सोशल डिस्टन्सिंग" के साथ पखवाड़े के सभीकार्यक्रम आयोजित किए गए. पखवाड़े का शुभारंभ क्षेत्रीय खान नियंत्रक श्री जी.सी.मीणा के संभाषण से हुआ. इस अवसर पर उन्होंने कहा कि डिजिटल युग में हिंदी वैश्विक भाषा बन चुकी है. नई शिक्षा नीति में भी हिंदी को और अधिक महत्व दिया गया है. हिंदी का शब्द कोष बहुत समृद्ध है. इस अवसर पर अधीक्षण अधिकारी एवं कार्यालय अध्यक्ष डा. वी.ए.जे. अरुणा ने माननीय गृहमंत्री श्री अमित शाह का संदेश पढ़कर सुनाया.

पखवाड़े के दौरान विभिन्न प्रतियोगिताओं का ऑनलाइन आयोजन किया गया. समापन समारोह के अवसर पर क्षेत्रीय खनन भूविज्ञानी श्री प्रशांत हेगड़े ने माननीय मंत्री मंडल सचिव श्री राजीव गौबा का हिंदी दिवस पर संदेश पढ़कर सुनया.

अंत में प्रतियोगिता के विजेताओं को श्री मीणा के तथा श्री हेगड़े के हस्ते पुरस्कृत किया गया.

हिंदी पखवाड़े का समापन उप खान नियंत्रक श्री अरुण कुमार के धन्यवाद ज्ञापन से हुई. आयोजन के सफलतार्थ सहायक प्रशासन अधिकारी श्रीमती एस.एस.रागिणी, सहायक प्रशासन अधिकारी श्रीमती सविता एन. कुलकर्णी, हिंदी अनुवाद श्री आशीष घोषाल, आशुलिपिक श्री कृष्ण कुमार, उच्च श्रेणी लिपिक श्रीमती के.कनकवल्ली, उच्च श्रेणी लिपिक श्री विद्यानंद कुमारने पूर्ण सहयोग प्रदान किया.



9.2.5 खनिज प्रसंस्करण में मनाया गया हिंदी पखवाड़ा

भारतीय खान ब्यूरो के खनिज प्रसंस्करण प्रभाग, हिंगणा में मुख्य अयस्क प्रसाधन अधिकारी एवं निदेशक (अतिरिक्त प्रभार) डा. श्रीमती संध्या लाल की अध्यक्षता में हिंदी पखवाड़ा का शुभारंभ हुआ. हिंदी दिवस के अवसर पर भारतीय खान ब्यूरो के शीर्ष अधिकारीगण वेब लिंक के माध्यम से जुड़े तथा हिंदी पखवाड़ा उद्घाटन समारोह में सभी ने भाग लिया. इस अवसर पर डा. लाल सहित मुख्य खनन भूविज्ञानी श्री एस.के. अधिकारी, मुख्य खनिज अर्थशास्त्री तथा राजभाषा अधिकारी डा. पी.के.जैन प्रमुखता से उपस्थित थे. इस अवसर पर माननीय गृहमंत्री का संदेश पठन किया गया.

पखवाड़े के दौरान विभिन्न प्रतियोगिता का आयोजन खनिज प्रसंस्करण प्रभाग में किया गया. जिसमें प्रमुखता से निबंध लेखन, चित्र पर आधारित कहानी, टिप्पण आलेखन एवं शुद्ध लेखन का समावेश था. पखवाड़ा के समापन अवसर पर डा(श्रीमती) संध्या लालने तथा अधीक्षण अधिकारी एवं कार्यालय अध्यक्ष डा. दिलीप आर.कानूनगो ने अपने संबोधन में सभी प्रतियोगियों की सरहाना की तथा विजेताओं को पुरस्कार प्रदान किया गया.

हिंदी संपर्क अधिकारी श्री अंचित गोयल के धन्यवाद प्रस्ताव के साथ हिंदी पखवाड़ा का समापन हुआ. पखवाड़े के सफल आयोजन हेतु प्रभाग के कनिष्ठ अनुवाद अधिकारी श्री संजय डोंगरे, उच्च श्रेणी लिपिक श्री नंदकिशोर कनौजिया, अवर श्रेणी लिपिक श्री सूर्यभूषण प्रसाद ने विशेष योगदान दिया.



9.2.6 उदयपुर में हिंदी पखवाड़ा का सफल समापन

भारत सरकार के निर्देशानुसार भारतीय खान ब्यूरो के उदयपुर क्षेत्रीय कार्यालय में 11 सितंबर से 25 सितंबर 2020 के दौरान हिंदी पखवाड़ा मनाया गया. पखवाड़े का उद्घाटन उप खान नियंत्रक एवं कार्यालय अध्यक्ष श्री के.के.टारडिया ने किया. इस अवसर पर उन्होंने उपस्थितों को संबोधित किया.

इससे पूर्व वरि. सांख्यिकी अधिकारी एवं हिंदी संपर्क अधिकारी श्रीमती नीता कोठारी ने हिंदी पखवाड़े के दौरान ली जाने वाली प्रतियोगिताओं की जानकारी दी. उद्घाटन कार्यक्रम का कुशल संचालन आशुलिपिक श्री दिलीप पंवार ने किया तथा धन्यवाद ज्ञापन डा.ओमकेश मूर्ति ने प्रस्तुत किया.

14 सितंबर को हिंदी दिवस के अवसर पर माननीय गृहमंत्री एवं माननीय केबिनेट सचिव के संदेश का वाचन श्री के.के.टारडिया ने किया. कार्यक्रम के पश्चात कार्यालय परिसर में वृक्षारोपण का कार्यक्रम आयोजित किया गया.

पखवाड़े के दौरान आयोजित विभिन्न प्रतियोगिताओं में सभी ने बढ़चढ़कर हिस्सा लिया.

25 सितंबर को हिंदी पखवाड़े के दौरान आयोजित प्रतियोगिता के विजेताओं को श्री के.के.टारडिया के हस्ते पुरस्कृत किया गया.

समापन समारोह का संचालन खनन अभियंता श्री मनीष गुप्ता ने तथा धन्यवाद ज्ञापन हिंदी संपर्क अधिकारी श्रीमती नीता कोठारी ने प्रस्तुत किया.



9.3 हिंदी कार्यशाला

भारतीय खान ब्यूरो, मुख्यालय, नागपुर में ऑनलाइन हिंदी कार्यशाला का आयोजन 25 सितंबर, 2020

भारत सरकार की राजभाषा नीति के कार्यान्वयन एवं हिंदी के प्रचार – प्रसार व प्रगति के उद्देश्य को ध्यान में रखते हुए भारतीय खान ब्यूरो, मुख्यालय, नागपुर में हिंदी पखवाड़े की अवधि में दिनांक 25 सितंबर, 2020 को अधिकारियों एवं कर्मचारियों हेतु ऑनलाइन हिंदी कार्यशाला का आयोजन किया गया। इस हिंदी कार्यशाला में कुल 21 अधिकारियों एवं कर्मचारियों ने उत्साहपूर्वक भाग लिया।

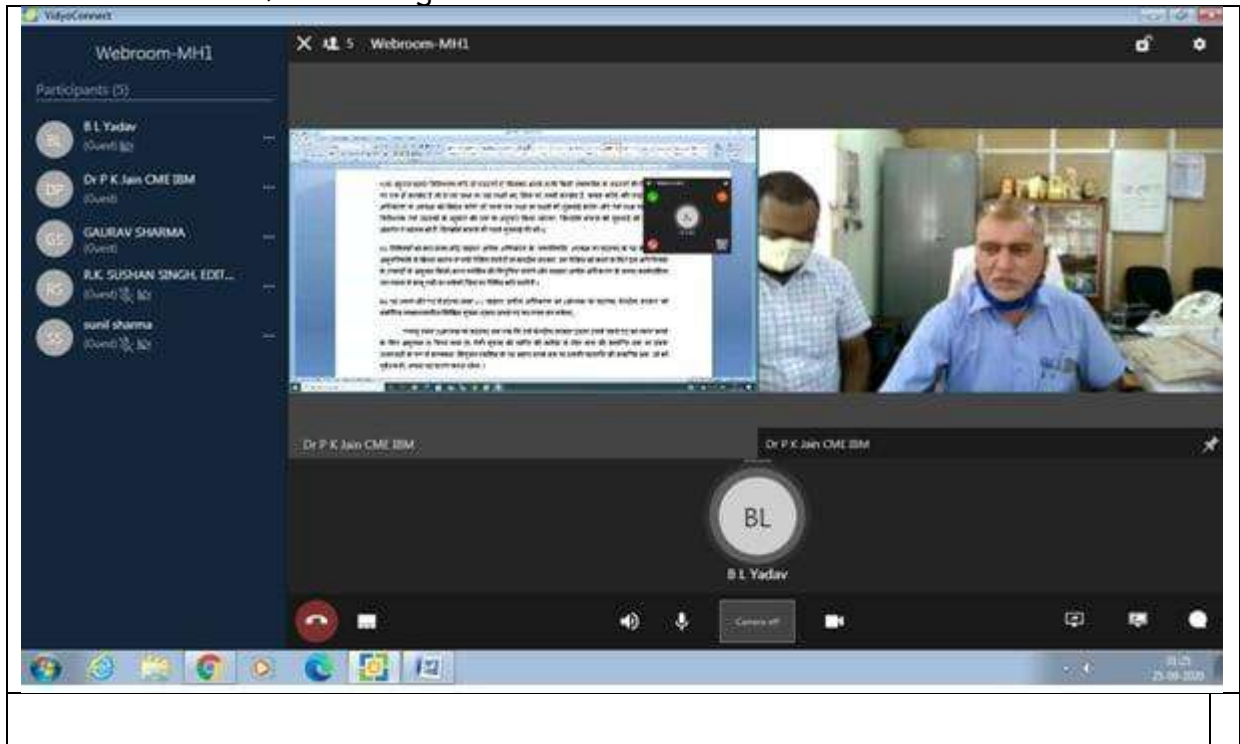
हिंदी कार्यशाला में भारतीय खान ब्यूरो कार्यालय के डॉ. पी. के. जैन, राजभाषा अधिकारी ने “प्रौद्योगिकी का राजभाषा कार्यान्वायन में उपयोग” विषय पर अपना व्याख्यान दिया।

अपने व्याख्यान में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी ने प्रौद्योगिकी के महत्व पर प्रकाश डालते हुए कहा कि आज के युग में प्रौद्योगिकी हमारे जीवन का आवश्यक अंग बन गया है तथा सभी कंप्यूटर यूजर फ्रेंडली बन गए हैं। साथ ही यह भी बताया कि यह तकनीकी अब तक केवल तकनीकी लोगों तक ही सीमित थी, लेकिन अब यह सामान्य लोगों तक भी पहुंच गई है तथा सामान्यतया लोग इसे बहुत कुशलता एवं स्वयं की रुचि से इसका प्रयोग कर रहे हैं। अपने व्याख्यान में उन्होंने कहा कि प्रौद्योगिकी की सहायता से हम दुनियां के किसी भी हिस्से में आसानी से अपनी पहुंच बना सकते हैं। उन्होंने इस अवसर पर डेटा एवं सूचना में अंतर स्पष्ट करते हुए इसकी विस्तृत जानकारी दी।

कार्यशाला के पश्चात सभी प्रतिभागियों से कार्यशाला के विषय में उनकी प्रतिक्रियाएं भी प्राप्त की गईं। सभी प्रतिभागियों ने सकारात्मक प्रतिक्रियाएं व्यक्त कीं। अपनी प्रतिक्रियाओं में प्रतिभागियों ने कहा कि तकनीकी माध्यम से आयोजित की गई यह ऑनलाइन कार्यशाला सराहनीय है। कोरोना वायरस के कारण प्रत्यक्ष रूप से न होकर वेबिनार के रूप में संपन्न यह कार्यशाला प्रशंसनीय है। कार्यशाला में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा दिए गए व्याख्यान की प्रतिभागियों ने प्रशंसा करते हुए कहा कि तकनीकी एवं कंप्यूटर पर दिया गया यह व्याख्यान हमारे दैनिक जीवन में लाभप्रद होगा तथा इस व्याख्यान को अत्यंत रोचक व तथ्यापूर्ण बताते हुए प्रतिभागियों के लिए इसे ज्ञानवर्धक बताया। साथ ही प्रतिभागियों ने तकनीकी माध्यम से वेबिनार के रूप में आयोजित की गई इस कार्यशाला की सफलता हेतु डॉ.

पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी, श्री अभिनय कुमार शर्मा, सहायक संपादक एवं हिंदी अनुभाग की प्रशंसा करते हुए धन्यवाद दिया।

अंत में श्री अभिनय कुमार शर्मा, सहायक संपादक द्वारा दिए गए धन्यवाद ज्ञापन के साथ कार्यशाला सफलतापूर्वक संपन्न हुई। अपने धन्यवाद ज्ञापन में श्री अभिनय कुमार शर्मा, सहायक संपादक ने टी.एम.आई.एस. को विशेष रूप से धन्यवाद दिया जिनके तकनीकी सहयोग से यह कार्यशाला सफलतापूर्वक संपन्न हुई।



ऑनलाइन हिंदी कार्यशाला का आयोजन :भारत सरकार की राजभाषा नीति एवं प्रोदयोगिकी का राजभाषा कार्यान्वयन में उपयोग के कार्यान्वयन एवं हिंदी के प्रचार - प्रसार व प्रगति के उद्देश्य को ध्यान में रखते हुए भारतीय खान ब्यूरो, मुख्यालय, नागपुर में 15 दिसंबर, 2020 को अधिकारियों एवं कर्मचारियों हेतु ऑनलाइन हिंदी कार्यशाला का आयोजन किया गया। इस हिंदी कार्यशाला में कुल 17 अधिकारियों एवं कर्मचारियों ने उत्साहपूर्वक भाग लिया।

हिंदी कार्यशाला में भारतीय खान ब्यूरो कार्यालय के डॉ. पी. के. जैन, राजभाषा अधिकारी ने 'राजभाषा नीति' विषय पर अपना व्याख्यान दिया।

अपने व्याख्यान में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी ने हिंदी कार्यशाला के उद्देश्य और महत्व पर प्रकाश डालते हुए कहा कि हिंदी कार्यशाला का आयोजन भारत सरकार की राजभाषा नीति का ही एक अंग है। उन्होंने प्रतिभागियों के समक्ष भारत सरकार की राजभाषा नीति एवं प्रोदयोगिकी का राजभाषा कार्यान्वयन में उपयोग की विस्तृत जानकारी दी तथा हिंदी तिमाही प्रगति रिपोर्ट के प्रोफॉर्मा के बारे में विस्तार से

बताया । हिंदी में कार्य करने के आसान व सरल तरीके बताते हुए भारतीय संविधान में हिंदी के प्रावधानों से भी अवगत कराया ।

कार्यशाला के पश्चात सभी प्रतिभागियों से कार्यशाला के विषय में उनकी प्रतिक्रियाएं भी प्राप्त की गई। सभी प्रतिभागियों ने सकारात्मक प्रतिक्रियाएं व्यक्त की। अपनी प्रतिक्रियाओं में प्रतिभागियों ने कहा कि तकनीकी माध्यम से आयोजित की गई यह ऑनलाईन कार्यशाला सराहनीय है। कोरोना वायरस के कारण प्रत्यक्ष रूप से न होकर वेबिनार के रूप में संपन्न यह कार्यशाला प्रशंसनीय है। कार्यशाला में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा दिए गए व्याख्यान की प्रतिभागियों ने प्रशंसा करते हुए कहा कि दैनंदिन कार्य में हिंदी किस प्रकार उपयोग में लाई जाए तथा किस पत्र का जवाब हिंदी में ही दिया जाए इसके बारे में महत्वापूर्ण सूचना जानने का अवसर मिला तथा कार्यशाला भले ही ऑनलाईन हो, लेकिन इसकी उपयोगिता कम नहीं हुई है। कार्यशाला के आखिर में श्री अभिनय कुमार शर्मा, सहायक संपादक ने सभी का आभार व्यक्त किया।



खनिज प्रसंस्करण प्रयोगशाला में हिंदी कार्यशाला का आयोजन

भारतीय खान ब्यूरो के खनिज प्रसंस्करण प्रयोगशाला, हिंगणा में महानियंत्रक महोदय के मार्गदर्शन में 5 मार्च 2021 को एक दिवसीय हिंदी कार्यशाला का आयोजन वेबिनार के माध्यम से किया गया.

कार्यशाला के प्रथम सत्र में डा संध्या लाल ने 'कार्यालयीन हिंदी का स्वरूप' विषय पर, सहायक अयस्क प्रसाधन अधिकारी एवं हिंदी संपर्क अधिकारी श्री अंचित गोयल ने 'राजभाषा नियम के अनुपालन' पर व्याख्यान दिया. दूसरे सत्र में अयस्क प्रसाधन अधिकारी श्री वी.ए.सोनटक्के ने 'पी.जी.ई एवं आर.ई. मिनरल बेनिफिशिएशन एण्ड मेटल बेनिफिशिएशन'

विषय पर व्याख्यान दिए तथा वरिष्ठ प्रशासनिक अधिकारी श्री पी.नागराजन ने कार्यालय में अनुशासन नियम विषय पर व्याख्यान दिए.

उक्त कार्यशाला में 13 तकनीकी/प्रशासनिक कर्मिकों ने भाग लिया. कार्यशाला के आखिर में प्रतिभागियों द्वारा पूछे गए प्रश्नों का निराकरण किया गया.



भारतीय खान ब्यूरो, मुख्यालय, नागपुर में ऑनलाइन हिंदी कार्यशाला का आयोजन -:भारत सरकार की राजभाषा नीति एवं हिंदी के प्रचार न में रखते को ध्याप्रसार व प्रगति के उद्देश्य - रोहुए भारतीय खान ब्यू, मुख्यालय, नागपुर में दिनांक 17 मार्च,को अधिकारियों एवं 2021 दी कार्यशाला का आयोजन किया गया। इस हिंदी कार्यशाला में कर्मचारियों हेतु ऑनलाइन हिं कुल22 अधिकारियों एवं कर्मचारियों ने उत्साहपूर्वक भाग लिया।

हिंदी कार्यशाला में भारतीय खान ब्यूरो कार्यालय के डॉ. पी. के. जैन, राजभाषा अधिकारी ने 'सायबर अपराध' तथा श्रीअसीम कुमार, कनिष्ठ अनुवाद अधिकारी 'राजभाषा नीति' विषय पर अपने व्याख्यान दिये।

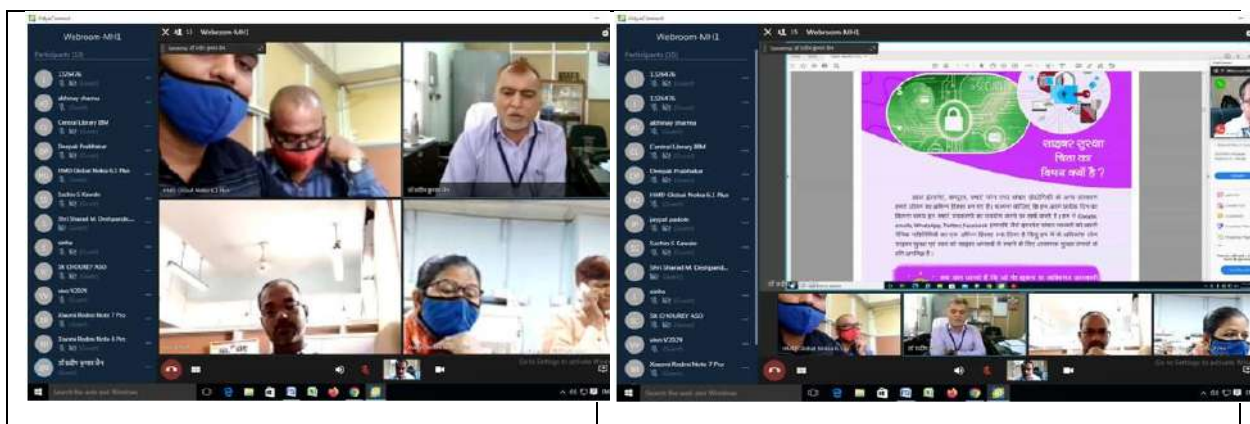
अपने व्याख्यान में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी ने 'सायबर अपराध' में विस्तृत जानकारी दी जिसमें उन्होंने ई-मेल, मोबाईल, वाट्सप, ई-

बैंकिंग, नेट आदि के उपयोग में सायबर अपराधियों द्वारा किए जाने वाले अपराधों की जानकारी दी तथा इससे बचाव व सावधानी के बारे में बताते हुए कहा कि इनका उपोग करते समय हमें अपनी वैयक्तिक जानकारी कभी भी किसी के साथ साझा नहीं करनी चाहिए एवं हमारे मोबाईल, ई-मेल में आने वाले ऐसे संदेशों जिसमें आपको लॉटरी लगने, पुरस्कार मिलने व विदेश यात्रा आदि का लालच दिया जाता है इनसे बचना चाहिए। पश्चात् उन्होंने विविध अपराधों के बारे में विस्तृत जानकारी देते हुए सायबर अपराध हेतु भारत सरकार द्वारा बनाई गई धाराओं, कानूनों, प्रावधानों के संबंध में बताते हुए इसमें अपराधियों को होने वाली सभाओं संबंधी भी विस्तार से बताया।

श्रीअसीम कुमार, कनिष्ठ अनुवाद अधिकारीने अपने व्याख्यान में 'राजभाषा नीति' के लिए हमारे संविधान में क्या - क्या प्रावधान है इसकी जानकारी देते हुए, हिंदी कब लागू हुई व किन - किन नियमों के तहत लागू हुई इसकी जानकारी दी। अपने व्याख्यान में उन्होंने राजभाषा से जुड़े संवैधानिक प्रावधानों व राजभाषा के ऐतिहासिक पहलुओं पर प्रकाश डाला साथ ही राजभाषा हिंदी के सफल कार्यान्वयन हेतु बनाई गई हिंदी के विविध समितियों के बारे में विस्तार से बताते अष्टम अनुसूची में शामिल भाषाओं की भी जानकारी दी।

कार्यशाला के पश्चात प्रतिभागियों से कार्यशाला के विषय में उनकी प्रतिक्रियाएं भी प्राप्त की गई। सभी प्रतिभागियों ने सकारात्मक प्रतिक्रियाएं व्यक्त की। अपनी प्रतिक्रियाओं में प्रतिभागियों ने कहा कि तकनीकी माध्यम से आयोजित की गई यह ऑन लाईन कार्यशाला सराहनीय है। कार्यशाला में डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी द्वारा दिए गए व्याख्यान की प्रतिभागियों ने प्रशंसा करते हुए कहा कि 'सायबर अपराध' की यह जानकारी निश्चित ही लाभदायक साबित होगी तथा आज की हिंदी कार्यशाला में दिये गये विषयों के व्याख्यान बहुत ही ज्ञानबर्धक थे और दैनंदिन काम -काज में इसका बहुत योगदान होगा।

साथ ही प्रतिभागियों ने तकनीकी माध्यम से वेविनार के रूप में आयोजित की गई इस कार्यशाला के सफलता हेतु डॉ. पी. के. जैन, मुख्य खनिज अर्थशास्त्री एवं राजभाषा अधिकारी, श्री अभिनय कुमार शर्मा, सहायक संपादक एवं हिंदी अनुभाग की प्रशंसा करते हुए धन्यवाद दिया।



Annexure I
ACTIVITIES UNDERTAKEN BY INDIAN BUREAU OF MINES UNDER SWACHHATA
ABHIYAN FOR THE YEAR 2020

Indian Bureau of Mines has been conducting various activities as part of Swachhataa Abhiyan every year as per the directives of Ministry of Mines. These activities are carried out in the office workplaces and office premises as well as at the mine sites. The activities carried out at IBM offices include special cleanliness drives with participation of all the employees, awareness campaigns through various activities, posters & banners etc.. In addition to above, IBM has also taken initiative to observe the SwachhataAbhiyan at the various mines under the jurisdiction of various Regional Offices of IBM.

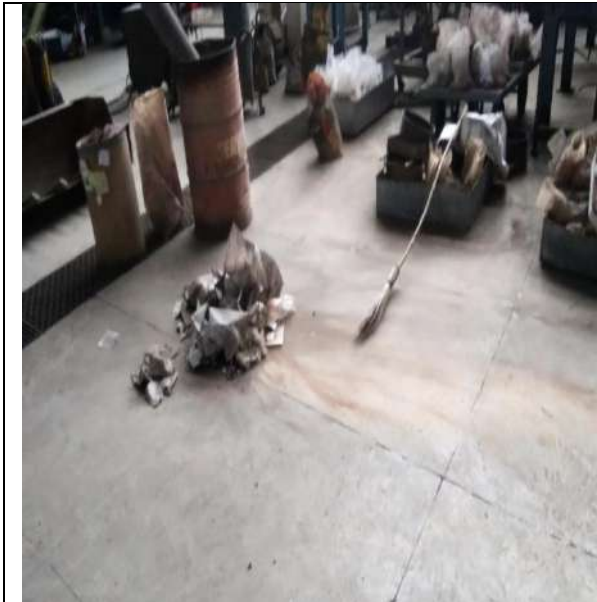
With reference to the Office Memorandum of the Ministry of Mines, Government of India issued vide letter No. 34/ 11/2020-Admin New Delhi dated 09/11/2020, it has been conveyed to observe the Swachhata Pakhwada during the 2nd fortnight i.e. from 16th November 2020 to 30th November 2020 at IBM Headquarters and in all Zonal/ Regional/ RODL Offices. Various activities have been carried out to keep the office premises/rooms clean. Detailed account of activities undertaken during Swachhata Pakhwada is given below:-

1. Dusting, cleaning and rearranging of files/records and replacement of Old and torn file covers with new one.
2. Weeding out unwanted office records/papers has been taken noting the details.
3. Dusting, mopping / sweeping in various sections and cleaning of furniture, cabinets, racks, almirahs, etc.
4. Deep sanitization and cleaning of office premises including corridors, stair.
5. Regular cleaning of toilets.
6. Shifting of offices including furniture to newly renovated areas inside Indira Bhawan at IBM (H.Q).
7. Banners, Posters have been displayed at all important places inside and outside the office premises for creating awareness on cleanliness.
8. Promote to curb the use of Single Use Plastic (SUP) and discourage the use of plastic in the office.
9. Awareness for Regular Hand Washing, Use of Sanitizer, Wearing Mask and maintaining Social Distancing among the staff.

Photographs of various activities organized at Indian Bureau of Mines are as follows:-

CLEANING AT PILOT PLANT, NAGPUR PREMISES

BEFORE



AFTER



BACKSIDE OF PLANT BUILDING

BEFORE



AFTER



DISTRIBUTION OF KITS TO BENEFICIARIES IN SLUM AREA



PLANTATION AT OD LAB, HINGNA OFFICE PREMISES



CLEANING AT RO, IBM AJMER PREMISES

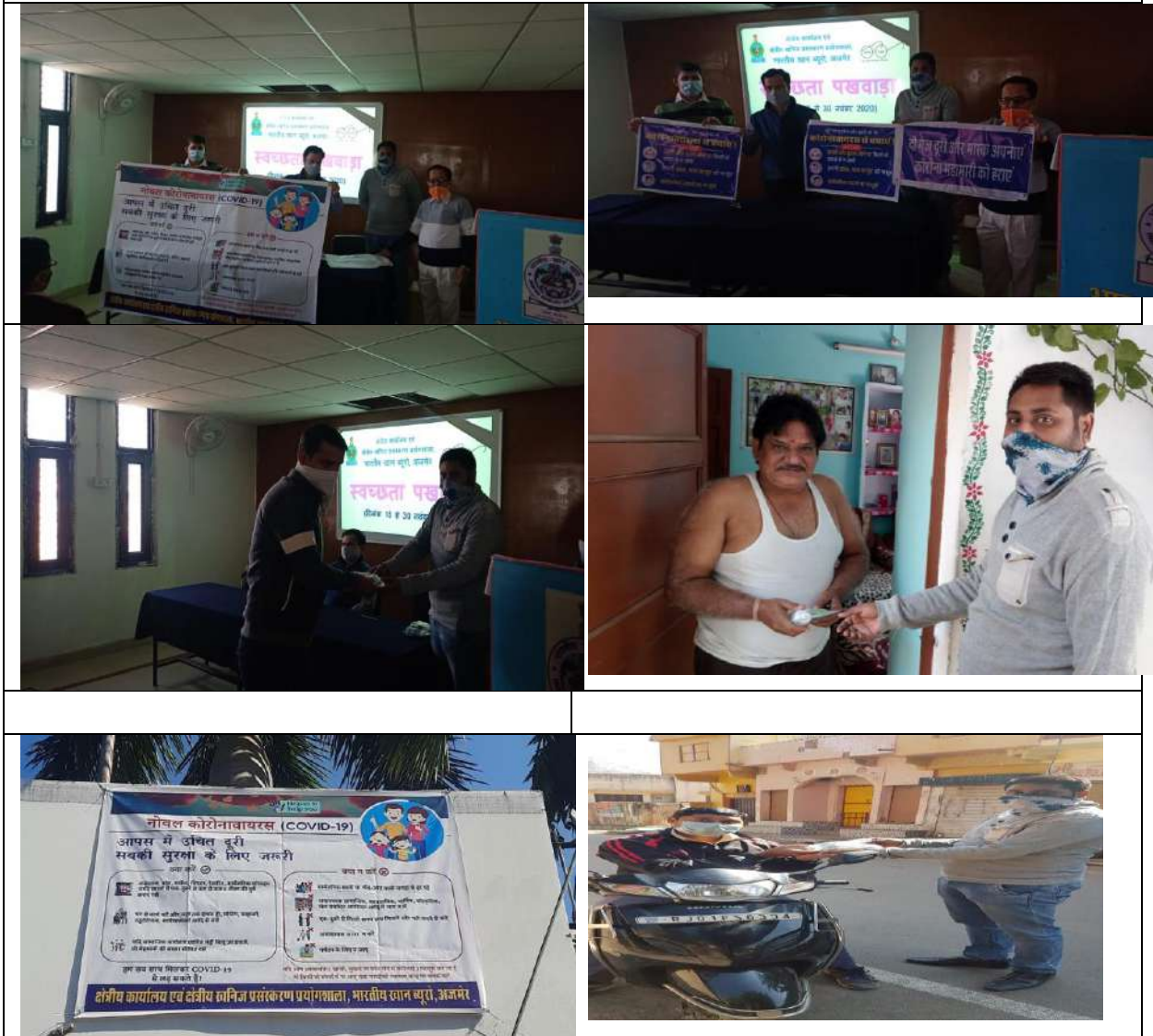
सफाई से पूर्व



सफाई के पश्चात्



पोस्टर एवं बैनर जन-जागरण अभियान



SWACHATHA PAKHWADHA AT RO, IBM, CHENNAI OFFICE PREMISES
(distribution of swachath kit containing soap, hand wash and towels etc.)





SWACHATHA PAKHWADHA AT RO, IBM, DEHRADUN OFFICE PREMISES



SHRAMDAN AT RO, IBM, GOA OFFICE PREMISES





Photos of Posters and Banners and weeding out of records at RO, IBM, Hyderabad



Posters and Banners about maintaining



Weeding out of records

Swachhata Pahwada at RO, IBM, Jabalpur



A view of Entry of IBM office indicating cleaning of office building



Sodium Hypochlorite & Thermal Scanning



Sanitization of stair case



Sanitizer Dispenser for hand sanitization officials and visitors



A view of office building after cleaning



Office Front yard after cleaning



Cleaning of colony



Cleaning in Colony



Separate file rack for Working mines.

Swachhata Pahwada at ZO, IBM, Kolkata

Cleaning of system room



Cleaning of ceiling, fan & light



Cleaning of Administrative /Technical room/Section



Distribution of Masks at RO, IBM, Raipur



RO. IBM, Ranchi



Shramdan at RO, IBM, Ranchi office premises



Annexure II
Response to Deal with Covid-19 by Indian Bureau of Mines

- Contribution of one day salary (Rs. 17.11 Lakh) to the PMCARES fund;
- Continuation of security personnel and housekeeping personnel with payment;
- Awareness for integrated Government Online Training (iGOT) training for COVID warriors through IBM website;
- Extension of time to report for duty/verification of record in the light of lock down with regard to newly appointed candidates etc have been taken up during the lock down period.
- Arogya Setu App : Almost all employees of IBM have downloaded the Arogya Setu App and they have been advised to check the status of Covid-19 before proceeding to office.
- RTPCR Test Camp at IBM organized by NMC, Nagpur
- Nagpur Municipal Corporation, Nagpur organized two RTPCR Test camps at IBM (H.Q) on 23rd and 26th Feb 2021 which was attended by 112 employees and three employees tested positive.

Response to Deal with Covid-19 by Indian Bureau of Mines
(Brief Details)

| Sl. No. | Subject/ Item | Work done details |
|---------|--|---|
| 1. | Processing approvals to continue mining operations | IBM is entrusted with the work of effective regulation of mining related activities. Accordingly, it is considered as one of the exempted category, as per guidelines issued by Ministry of Home Affairs time to time during lock down period. In order to ensure time bound disposal of works like processing approvals to continue mining operations specially for mining whose leases are expiring between 31.03.2020 to 30.04.2020, IBM operated its offices with bare minimum strength and disposed of all such mining plans as per guidelines envisaged for ease of doing business. |
| 2. | Directions for Bank Guarantees submitted with | In the wake of countrywide lockdown due to Covid-19 (Corona virus) and due to non-verification of implementation of the approved |

| | | |
|----|---|---|
| | FMCP | proposals of Final Mine Closure Plan, field offices of IBM have been directed to write suitable letter to all such banks immediately for not releasing the Bank Guarantees which are expiring on 31.03.2020 until they receive any communication from IBM in this regard or 30 th September, 2020, whichever is earlier. The Bank may release the bank guarantee after receipt of a written letter from the concerned Regional Controller of Mines, only after his ensuring the implementation of the provisions of Final Mine Closure Plan in all such cases. |
| 3. | ASP Publication | In order to maintain continuous revenue flow to state governments amid COVID crisis, IBM timely analysed the data and published average sale price of various minerals up to February 2020 and metals up to March 2020. IBM did this job as work from home during lock down period. |
| 4. | Contribution of One day salary to the PMCARES Fund | The officers and Staff of Indian Bureau of Mines have decided to donate one-day salary to the Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PMCARES fund). Indian Bureau of Mines is expected to contribute Approximate 17.11 Lakhs to PMCARES Fund |
| 5. | Payment of Wages to outsourced persons during the lockdown period. | Out sourced persons for Security, House Keeping etc. in IBM have been considered as "on duty" as per Ministry of Finance Circular vide letter No. 23(4)/E.Coord/2020/1 dated 23.03.2020 and paid salary during the lockdown period. |
| 6. | Awareness for integrated Government Online Training (iGOT) training for Covid warriors. | To give wide publicity about the online Portal and course available to fight Covid -19, all Regional Offices have been directed to circulate the same to all State Governments and District Administration/ Municipal Bodies. Further a link has been provided in the IBM Website linking to the " https://diksha.gov.in/igot/ " site of the DoPT website offering online iGOT training programme for Covid Warriors. |
| 7. | Extension of time | IBM has offered appointments for certain posts. |

| | | |
|-----|---|---|
| | to report for duty/verification of record | However, these persons could not complete formalities such as medical examination, verification of records etc. due to nationwide lockdown. All such persons have been accorded extension of time up to 29.05.2020 |
| 8. | Compliance of Standard Operating Procedures | IBM circulated all the Guidelines/Standard Operating Procedure received from various authorities including from Ministry of Home Affairs, Ministry of Health and Family welfare, Govt. of India to all the Divisional/Zonal/Regional/RMPL /Sectional heads of IBM for their strict compliance. Further they have been directed to comply the order issued by the Local Governments/Authorities for prevention of Covid-19. Thermal Scanners, Sanitization of Office buildings, use of sanitizers, soaps, limiting visitors, frequent hand wash with soaps, and cleaning of office premises with disinfections etc. is being followed. Further in some of the offices, IBM has spared their government vehicles for assistance to local authorities to prevent spread of Covid-19. |
| 9. | Advisory to deal with Covid-19 | A running Power Point Show prepared by the Ministry of Mines regarding Covid-19-Know the facts, Covid-19 Symptoms vs. Flue, Cold &Allergies, Preventive measures for Covid-19, how to reduce risk of Covid-19 etc. has been hosted on IBM website and also displayed at entrance of the IBM HQ Building and some of the regional offices. |
| 10. | Arogya Setu App | Almost all employees of IBM have downloaded the Arogya Setu App and they have been advised to check the status of Covid-19 before proceeding to office. |



TOUCH FREE HAND SANITIZING DISPENSER AT IBM (H.Q) RECEPTION AREA



ELECTRONIC DISPLAY OF GUIDELINES ISSUED BY MINISTRY OF MINES



**SANITIZATION OF IBM (H.Q) WITH SODIUM HYPOCHLORITE SOLUTION AS PER
MINISTRY OF HEALTH AND FAMILY WELFARE GUIDELINES**

SANITIZING LIFT AREAS WITH SODIUM HYPOCHLORITE SOLUTION





PROVIDING OF HAND SANITIZER & THERMAL SCANNING OF IBM EMPLOYEES AT RECEPTION AREA



3 PLY COTTON MASKS HAVE BEEN PROCURED FOR SUPPLY TO ALL IBM EMPLOYEES

****THE END****