

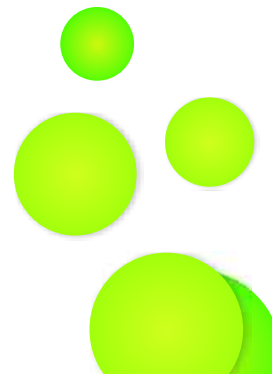
# Journey of Indian Bureau of Mines

## 1.1 HISTORY OF MINING AND EVOLUTION OF MINERAL LEGISLATION IN INDIA

As evidenced in the annals of history, from the Stone Age to the present, it could be asserted that minerals and metals did play vital roles in the growth of civilisation and progress of humankind.

There are deluge of evidences that lead one to believe that the knowledge of minerals, such as, coal, iron ore, copper, lead, zinc, etc. and their exploitation methods existed in the country from time immemorial – these clearly indicate that progressive growth achieved through civilisation that got flagged by discovery & utility of minerals & metals which subsequently also defined the Ages by its prevalence with appellations, such as, Bronze Age & Iron Age became important benchmarks in the development indices of human growth. The earliest and most authentic record of information relating to minerals in ancient India is found in 'Arthashastra', a treatise composed by Kautilya famously known as Chanakya, between 321 and 296 BC. This treatise elaborates a comprehensive account of properties of ores of various minerals and metals with methods for their treatment and large-scale production as well as manufacture of alloys, such as, brass, bronze and also gold and silver alloys with base metals. The records available in Kautilya's 'Arthashastra' also purport stipulations in regulating Mining Industry and prescribes qualifications and responsibilities, knowledge of the science dealing with copper & other minerals and expertise in mineralogy that a Superintendent of Mines must possess. The exposition also throws light on mining labourers and necessary instruments, besides suggesting legalities & awarding of stringent punishment to violators of law laid down for mining operations especially to those who conducted mining without license or who committed theft of mineral products. Arthashastra goes to the extent of describing the responsibilities of a Superintendent of Ocean Mines (Khanyadyakshah) who it says shall attend to the collection of conch-shells, diamonds, precious stones, pearls, corals and salt along with conducting the business of regulation & commerce of the above commodities. Arthashastra also highlights that both mining and commerce of minerals shall fall under the domain of the State.

In the medieval ages, India had a fairly well-developed Metallurgical Industry. Between the years 1400 and 1800, individual kingdoms prescribed controls for mining activities but during the Mughal era more stringent regulatory controls were established & practised. In Rajasthan, mining of lead and zinc was reportedly in progress since 1260 BC and continued right up to 18th century with the methods of stipulated revenue collection. Some of the Indian Princely States, notably Mysore, had their own safety regulations.





The first recorded history of mining in India dates back to 1774 when Mr John Summer, Mr S.G. Heatly and Mr Redfarne were granted permission by Sir Warren Hastings, the then Governor General of Bengal, for mining coal in Pachete and Birbhumi. M/s John Taylor & Sons Ltd started gold mining in Kolar Gold Fields in the year 1880. The first oil well was drilled in Digboi in the year 1866, just seven years after the first ever oil well in the world was drilled in Pennsylvania State, USA in 1859.

The first concrete proposal for inspection and regulation of mining operations in India came in 1890 from the Secretary of State, Lord Cross. Mr James Grundy was the first Inspector of Mines appointed by the Government of India. He worked with the organisation, Geological Survey of India (GSI) with the duty to inspect mines and to make recommendations on the type of regulations required. In the first report which Mr Grundy submitted to the then Director of GSI, he stressed the need for passing the Mines Regulations Act which amongst other things would provide for special Rules with legal standing as the Act itself. Briefly, the Act was to provide for notices of opening of mines and of accidents, minimum age for boys and girls employed underground, first aid, management & supervision and safety matters. Special rules for coal and other minerals were incorporated so as to provide for additional safety provisions, which also specified the need for regular report of inspection of all parts of mines and machinery.

In 1895, the Government of India appointed a Committee to frame general rules applicable to mines or groups of mines and to clarify the heads under which legislation was desirable and also the provisions which need to be made under each head. The Committee submitted its report in 1896. Occurrence of a couple of disasters, one in 1897 in the Kolar Gold fields in which 52 persons were killed and the other in 1899, in Khost Coal Mine in Baluchistan (now in Pakistan), where a mine fire caused death of 47 persons, triggered the expeditious finalisation of mining legislation and subsequent enactment of the Mines Act in 1901. The Mines Act which came into force in 1901 covered all minerals worked up to a depth of over 6 meters, and provided for appointment of inspectors, appointment of persons possessing the prescribed qualifications as managers of mines, empowered the Chief Inspector to enter and inspect mines, and to enquire into accidents and prohibit the employment of children.

Significance of mineral development was duly acknowledged in the Government of India Act 1919 which incorporated a dual form of government, referred to as dyarchy, for major provinces. As per Schedule 'L' of the said Act, entry at Sl. Nos. 24 and 25, Geological Survey and Control of Mineral Development insofar as such control was reserved for the Governor General in Council under rule made or sanctioned by the Secretary of State, and regulation of mines respectively were in domain of the Part-I viz. Central Subjects. The Mining Industry was recognised as an important profession then. Persons nominated to represent Indian Mining Association, Indian Mining Federation from Mining Constituency (referred to as special constituency) featured in the Legislative Council of the Governors of the States, such as, Bihar and Odisha.

### highlights

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*The first Mines Act came into force in 1901.*

With the enactment of the Government of India Act, 1935 came Federation of India, comprising both provinces and states. As per Section 100 of the Government of India Act 1935, the Federal Legislature had powers to make laws with respect to any matter enumerated in List-I in the Seventh Schedule to the Act, called "Federal Legislative List". Entry at Sl. No. 36 in the Federal Legislative List related to "regulation of mines and oilfields and mineral development to the extent to which such regulation and development under Federal control is declared by Federal law to be expedient in the public interest".

The Mineral Policy Conference held in January 1947 resulted in the enactment of the Mines and Minerals (Regulation and Development) Act, 1948, the first legal framework in independent India for the regulation and development of mines. The Mines and Minerals (Regulation and Development) Act 1948 received the assent of the Governor General on 8th September 1948. The Act empowers the Central Government to regulate mines and oilfields and mineral development on the lines contemplated in the Industrial Policy Resolution of the 6th of April 1948. The deliberations of the conference led to the establishment of the Indian Bureau of Mines (IBM) in March 1948 as the main regulatory agency for monitoring and supervising mining activity in the country.

With the adoption of the Constitution of India on 26th January 1950, the legislative powers of the Central government and the State governments were clearly defined. Entry 54 of List I in the Seventh Schedule of the Constitution empowered the Central government to regulate mining activities and development of minerals. Entry 23 of List II in the Seventh Schedule empowered the state governments to frame rules and regulations in respect of mining activities and mineral development, subject to the provisions of List I.

The first Five Year Plan (1951-56) emphasised the provisions for systematic & detailed investigations and surveys by the Geological Survey of India, the Indian Bureau of Mines and the National Laboratories for quantitative and qualitative assessment of the country's reserves of important minerals. The Plan advocated employment of properly qualified technical personnel for conducting mining operations of economic interest to bring about a general improvement in the methods of mining as well as in the recovery of economically workable mineral resources. The Plan required the Indian Bureau of Mines to assist in the process through its inspectorate whose functions were to inspect every mining operation and advise the owner on proper methods of mineral development and also to ensure that the advice given is implemented. It was advocated that the Indian Bureau of Mines should also be responsible for the collection of detailed information on the nature of mining operations carried out, the mechanical equipment in use and the development programmes proposed by each unit. The Plan also provided that Indian Bureau of Mines should be empowered to collect statistics in relation to the present status and requirements of the Mining Industry in the interest of development and planning. Trends in international mineral trade and statistics with regard to the mineral markets in India and abroad should also be collected.



## highlights

*A committee under the Chairmanship of Shri B.C. Mukherjee was set up in July 1966 to review the organisation of IBM and also its functions, in the context of the emerging requirements.*

## 1.2 JOURNEY OF IBM—FROM INCEPTION TO PRESENT

A mineral policy conference convened by the then Department of Works, Mines and Power at New Delhi on 10 and 13 January 1947 undertook as part of its agenda, proposals for formulating a comprehensive National Mineral Policy. The conference unanimously emphasised on the urgent need for formulation of such a Policy for central coordination and planned development of the country's mineral resources and establishment of central machinery for the purpose.

To achieve these objectives, the Government of India decided to constitute a competent technical organisation to work in close liaison with various Ministries and Departments of the central government, and that which could function primarily as an advisory body. As a consequence, the Indian Bureau of Mines was set up on the 1st of March, 1948.

Initially, commencing operations with just two officers, viz. the Director and an Assistant Director and consequent upon the finalisation of the draft Mines and Minerals (Regulation and Development) [MM (R&D)] Act, 1948 and its promulgation thereafter with the Governor-General's assent on 8th September 1948, by December 1949, IBM had a sanctioned strength of 9 officers and all of them had powers to inspect mines under Section 11 of the MM (R&D) Act. The Government, through resolution No.MII-150 (125), dated 9th August 1950 assigned functions to IBM as detailed below, that envisioned a considerable and exclusive sphere of work for IBM.

- Advising the Central and State Governments on the developments and utilisation of mineral resources;
- Inspection of Mines for ensuring conservation of minerals;
- Conducting research on mineral beneficiation and mining problems;
- Collection and publication of statistics relating to mines and minerals;
- Publication of bulletins and monographs relating to the Mining and Mineral Industry; and
- Assisting mineral trade in the marketing of minerals, and any other functions entrusted by the Government.

The subsequent notification No.MII-150 (221) dated 27th Feb. 1953 entrusted the Bureau with one more function, namely, exploration of mineral deposits.

The following period of 13 years, i.e., up to 1966 witnessed a phenomenal growth in the exploration activities of IBM. Indeed this overshadowed the other functions of IBM, and the Exploration Wing became the largest and primary Division of the Bureau, both in size as well as in budget requirement. Exploration remained at the top of IBM's activities for a number of years. Among the major exploration projects completed during this period were:

- Kiriburu, Barsua, Rajhara, Bailadila, Ramandurg range for iron ore;
- Khetri, Kolihan, Dariba, Rakha and Dikchu-Rangpo for copper;
- Nandini, Niwar, Panposh and Hathipaon for limestone and dolomite;
- Almora for magnesite; and
- Ramgiri for gold.

During this period, Mines Control and Conservation of Minerals (MCCM) Division had the responsibility for effecting systematic development of mineral deposits, promotion of improved methods of mining and elimination of avoidable waste. The officers of this Division undertook periodic inspections for systematic development of mines and also carried out checks on production, stock of minerals and promoted recovery from waste dumps.

The work of MCCM Division brought up issues relating to beneficiation of ores and minerals and, therefore, a supporting laboratory became essential. This led to the establishment of Mineral Technology and Research Division, which later on was transformed into the present Ore Dressing Division (OD Division).

Reports of the inspecting officers and returns brought out a lot of useful information. It was essential that all information be properly classified and published for assisting in the systematic development of mineral resources and also to render advice to the government on policies relating to mineral trade. This led to the establishment of Mineral Economics Division (ME Division).

The expansion of the Exploration Wing was so fast that it outgrew the other activities of the Bureau. By the year 1963-64, the strength of IBM had risen to 4,110.

With the formation of National Coal Development Corporation, prospecting for coal was transferred to the corporation from IBM. As a consequence, the strength of IBM fell to 3,125 in 1964-65. Later, the activities of prospecting, drilling and mining of non-coal minerals were transferred to the Geological Survey of India with effect from 1st January 1966 leaving the Bureau to discharge functions as assigned to it in the 1st charter of 1950. Consequently, the strength of IBM comprising the MCCM Division, ME Division, OD Division and the Administration Division dropped to 554.

At this stage, the Government felt that the reduced strength of the IBM was not adequate for achieving the objectives of conservation of minerals and development of mineral wealth, and that it was incommensurate with the increasing requirements of the industry and trade. Accordingly, a committee under the Chairmanship of Shri B.C. Mukherjee was set up in July 1966 to review the organisation of IBM and also its functions, in the context of the emerging requirements and make necessary recommendations thereof. The main recommendations of the Mukherjee Committee were for building up four important services, viz.



1. applied research leading to technological improvement in all directions,
2. organised collection of information, covering inter alia, market statistics both domestic and foreign,
3. consulting engineering organisation to provide technological assistance to the Mining Industry, and
4. preparation of mineral maps that would ascertain the complete inventory of the mineral resources of India.

In the light of the recommendations of the Mukherjee Committee, the Government revised the functions of IBM vide Resolution No. 220(6)/68-M.III dated 13.6.1968, by reorienting the emphasis among the existing activities of IBM and adding two new functions, namely, to provide technical consultancy services to the Mining Industry and to prepare mineral maps to ascertain inventory of mineral resources.

These functions were carried out by IBM through its four technical Divisions, namely:

1. The Mines Control and Conservation of Minerals (MCCM) Division,
2. The Mineral Economics (ME) Division,
3. The Ore-Dressing (OD) Division, and
4. The Technical Consultancy, Mining Research and Publication (TMP) Division.

With effect from 7th November 1979, the Statistics Wing of the ME Division was separated and made into an independent Division named Mineral Statistics Division.

The Administration Division looked after the establishment matters, purchase of stores and equipment, maintenance of cash and accounts, budget, etc. The Controller, Indian Bureau of Mines was the designated Head of the Department.

Providing technical consultancy in the field of geology and mining was a new activity. Beginning from the preparation of geological appraisal of mineral deposits, the service has now diversified and several add-on functions, such as, preparation of detailed feasibility reports on financial analysis of loan requirements for mining projects based on detailed project reports prepared by other consultants and ore dressing project were incorporated. The clientele for this service included a variety of parties, such as, small, medium and large mine owners, State and Central public sector Mining Corporations, financial institutions, manufacturers of explosives, engineering consultants, such as, Engineering Projects India Limited, MECON, etc.

Over the years, it was observed that the scope of functions assigned to the Bureau and the resources of manpower available to the organisation to discharge functions included in the Resolution dated 13th June 1968 were grossly insufficient. Taking cognisance, the Government constituted a Committee vide order No. F-23012/45/77-MVI dated 12th October 1978 under the chairmanship of Shri R. Ganapati, Additional Secretary, Department of Mines, Ministry of Steel and Mines, to study the organisation and structure of IBM and suggest suitable improvements with a view to fulfil the objectives and functions of the organisation and identify major problems of personnel management and suggest remedial measures. Consequent to the review of IBM carried out by the Ganapati Committee, a revised charter of functions was notified in 1981 (vide resolution No. F.23012 (133)/80/80-MVI dated 11.8.1981).

### highlights

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### Charter of Functions, 1981

1. a) Enforcing conservation and systematic development of mineral resources through inspection of mines, beneficiation plants and mineral-based industries.  
b) Conducting geological, mining, beneficiation and other related techno-economic field studies and applied research on mining geological problems.
2. Conducting studies on environmental protection and pollution control with regard to the mining and mineral beneficiation operations.
3. Preparation of mineral maps and the inventory of mineral resources of India.
4. Providing technical consultancy services on suitable terms within the country and abroad in connection with
  - a) Appraisal and exploitation of mineral deposits including ore dressing investigations and analysis of ores and minerals and preparation of feasibility reports and detailed project reports of mines/ore-dressing projects;
  - b) Improving efficiencies and reducing operation costs;
  - c) Market surveys;
  - d) Financial analysis of capital requirements; and
  - e) Matters related to any of the functions enunciated in this charter.
5. Conducting, under the departmental programme, testing and analysis of ores and minerals, mineral beneficiation and related technological studies on samples obtained from land and sea. Research on fundamental aspects of mineral beneficiation.
6. Collection, processing and storage of data on mines, minerals and mineral-based industries, collection and maintenance of world mineral intelligence, foreign mineral legislation and other related matters.
7. Publication of bulletins, monographs, information circulars and reports of investigations relating to mining, mineral beneficiation and mineral-based industries.
8. Publication of statistics relating to mineral production in India, mineral stocks, exports, local consumption, etc., rendering assistance to the mineral trade in the marketing of minerals.
9. Advising the Government on matters in regard to the Mineral Industry particularly on planning for exploitation and utilisation of the country's mineral resources and those of the sea, infrastructural requirements, environmental protection and pollution control, export and import policies, trade, mineral legislation, wages, taxes, royalty and related matters.
10. Training of scientific, technical and other cadres of the department and persons from the Mineral Industry and other agencies in India and abroad.
11. Promoting awareness regarding the conservation and systematic development of mineral deposits through museums, exhibitions and other audio-visual media.
12. Undertaking such other activities as may become necessary in the light of the developments in the fields of mining, mineral beneficiation and related technology.



Accordingly, IBM organised itself to discharge the assigned functions through six technical Divisions, which are –

1. Mines Control & Conservation of Minerals (MCCM) Division
2. Ore Dressing (OD) Division
3. Mineral Economics (ME) Division
4. Mineral Statistics (MS) Division
5. Technical Consultancy (TC) Division
6. Training, Mining Research and Publication (TMP) Division

In addition, there were common facilities of Administration, Accounts, Stores, Publication Section with in-house Press, and Library, etc. The Controller, IBM was re-designated as Controller General in 1982.

A significant addition to the Charter was made in 1987 when the responsibility of approval of mining plans and scheme of mining was entrusted to IBM on behalf of the Central Government.

In 1991, Indian Mining Sector was thrown open to private investment both domestic and foreign. The National Mineral Policy, 1993, was formulated in tune with the Liberalisation, Globalisation and Privatisation Policy of the Government. The parent Act i.e. MMRD Act, 1957 and rules made thereunder, namely, MCR, 1960 and MCDR, 1988 were amended as per the Policy Statement. The functions of IBM were once again modified in 2003 vide resolution No. 35/1/2002-M.III dated 6th March 2003.

### 1.3 CONTRIBUTIONS AND ACHIEVEMENTS OF IBM

The important contributions and achievements made by IBM since its inception decedewise are enlisted as follows:

#### First Decade 1948–1960

During the first two years, IBM functioned mostly as an advisory body and assisted the Government in framing mining legislation namely:

- Mines & Minerals (Regulation & Development) Act, 1948
- Mineral Concession Rules, 1949
- Petroleum Concession Rules, 1949
- Mineral Conservation & Development Rules, 1955
- Mineral Conservation & Development Rules 1958
- Mining Leases (Modification of Terms) Rules, 1956

### highlights

*The Controller, IBM, was re-designated as Controller General in 1982.*

*The Mineral Concession Rules 1949 (MCR 1949) was made for regulating the grant of prospecting licences and mining leases for minerals other than petroleum and natural gas.*

#### Period at a Glance 1947–1950

	1947	1950/1950-51
Number of Reporting Mines	1,977	2,097
Value of Mineral Production (in Rs crore)	58.43	70.12
Index of Mineral Production (Base Year 1980-81)	20.46	22.75
Average Daily Employment in Mines	4,65,667	4,85,083
Percentage contribution to GDP	0.65 (194849)	0.75
Value of Minerals Export (in Rs crore)	10.73	24.05
Value of Metals Export (in Rs crore)	0.8	1.41
Value of Minerals Import (in Rs crore)	6.56	3.61
Value of Metals Import (in Rs crore)	23.16	42.45

#### Decade at a Glance 1951–1960

	1951/1951-52	1960/1960-61
Number of Reporting Mines	2,703	3,334
Value of Mineral Production (in Rs crore)	80.23	166.07
Index of Mineral Production (Base Year 1980-81)	25.04	36.68
Average Daily Employment in Mines	5,49,048	6,52,069
Percentage contribution to GDP	0.81	0.95
Value of Minerals Export (in Rs crore)	39.81	67.35
Value of Metals Export (in Rs crore)	3.00	14.27
Value of Minerals Import (in Rs crore)	3.69	51.74
Value of Metals Import (in Rs crore)	39.50	158.46

### The Mineral Concession Rules, 1949

The Mineral Concession Rules 1949 (MCR 1949) was made for regulating the grant of prospecting licences and mining leases for minerals other than petroleum and natural gas. The MCR 1949 comprised 69 Rules, 4 Schedules and 3 Annexures. Schedule-I specified rates of royalty applicable for various minerals, Schedule-II detailed minimum quantities of ore and minerals removable free of royalty, Schedule-III gave rates of Dead Rent and Schedule- IV indicated 'Specified Minerals' for which the prior approval of the Central Government was essential for grant or renewal of Prospecting Licence or Mining Lease. Annexure 1 provided the model form for grant of mineral concession, Annexure 2 provided model form of applications for grant of mineral concession and Annexure 3 provided the form for Application for review.

Under MCR 1949, no prospecting licence or mining leases could be granted to any person unless he held a certificate of approval from the State Government concerned. The State Governments were empowered to grant the certificate of approval to any person who, in the opinion of the State Government was in a position to employ an efficient prospecting agency or possesses special knowledge of geology



or mining. The detailed procedure for grant of Prospecting Licences (PL) and Mining Leases (ML) was enumerated in the MCR 1949. Except for mica the period of PL was two years extendable twice by one year after the expiry of the period of two years for which the PL was initially granted. In respect of mica, the period of PL was one year with provision of extension for one more year. The PL holder had a right for mining lease over the whole or part of the area covered by prospecting licence.

The mining lease was granted for 30 years in respect of coal, iron ore and bauxite (for manufacture of aluminium) and 20 years in the case of any other mineral. The mining lease was renewable for one or two periods each not exceeding the duration of the original lease in case of coal, iron ore and bauxite (for manufacture of aluminium) and one period of the original lease in case of other minerals. In case of a direct application for a mining lease, the State Government was at liberty to grant mining lease for such an area as it deemed fit. In case of PL holder, mining lease was to cover the whole or such part of the licence as the applicant may desire. However, the State Government for any special reason and with prior approval of the Central Government could reduce or exclude a portion of the area under licence. Rule 38 provided that the length of an area under mining lease should not exceed four times its breadth. However, in case of coal minerals the length was not to exceed twice the breadth of the area. Chapter V of the MCR 1949 dealt with grant of mineral concessions for private persons.

Provisions for Revision by the Central Government against the order of the State Government concerning grant, renewal, cancellation, transfer of PL or ML and grant/renewal of certificate of approval existed in MCR 1949.

The MCR 1949 was the first basic regulatory mechanism initiated for grant of mineral concessions in Independent India.

▶ With the enactment of the MMRD Act 1948, IBM was entrusted with fresh set of functions in August 1950. In accordance with this Charter, inspection of mines and mineral prospects became a regular activity. Among the earliest achievements that rose out of these inspections were the utilisation of gold tailings for filling underground excavations in Kolar Gold Field in place of granite blocks and installation of heavy media separation plant at Dongri Buzurg for recovery of manganese ore from old waste dumps.

### Mineral Conservation and Development Rules, 1955

MCDR 1955 was made under Section 6 of the Mines & Minerals (Regulation & Development) Act 1948. It comprised six Chapters containing 26 Rules and a Schedule containing different returns and notices. Chapter-I was devoted to preliminary details and definitions.

### highlights

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Mineral Conservation and Development Rules 1955 were made under Section 6 of the Mines & Minerals (Regulation & Development) Act 1948.

Chapter II comprised Notices and Returns to be submitted by the holder of Prospecting Licence and Mining Lease. Rules 4 to 15 dealt with notices viz. commencement, transfer, abandonment of prospecting and mining operations, submission of plans and sections; notices of re-opening of a mine, appointment of qualified persons and/or change of his address. Rule 14 dealt with submission of Annual returns of production for all minerals. However, in respect of manganese ore, chromite, mica, iron ore, ilmenite, copper ore, lead/zinc ore, gold and precious metals quarterly returns were prescribed for submission to IBM and State Governments.

Chapter III contained detailed provisions for shafts sinking and new boreholes, employment of geologists and mining engineer, etc. Rules 16 to 20 dealt with notices of certain mining operations, such as, sinking of a trial shaft or borehole to a depth exceeding 50 feet from surface, extension of an existing shaft or borehole, sinking of new shaft or borehole commencing from underground workings, records of shafts and boreholes, preservation of cores, transfer of records, etc. Rule 20 contained provisions of employment of geologists and mining engineers.

Chapter IV dealt with examination of minerals and issuing of directions. Rule 21 empowered the Director, IBM, to issue directions to mines regarding conservation and systematic development of minerals. As per Rule 22, a mine owner is required to submit a scheme of development of mines together with requisite plans and sections, if requisitioned by the Director, IBM. Rule 23 empowers the Director or any other officer duly authorised by the Government to enter and inspect a mine, area of prospecting licence and take samples.

Chapter V dealt with Revision. As per Rule 25, the powers of decision on the revision applications against the order or direction made by the Director, IBM were vested with the Central Government. The Central Government was required to refer the revision application to a Board consisting of not more than two officials and an equal number of persons representing the owners, agents or managers of mines and one Chairman, all of them to be appointed by the Central Government. Chapter VI dealt with offences and penalties. Rule 26 included the penalty provisions for violation of Rules.

MCDR 1955 put in place the first architecture of scientific and sustainable mining by detailing provision on shafts, boreholes, stoping, employment of qualified personnel by miners, submitting returns on mining carried out, introducing provisions of mining done and the provision of scheme of development of mine, encompassing all of these and also provisions of inspection. Direction by the regulator was enumerated and provisions of penalty were outlined.



highlights

**Mineral Conservation and Development Rules, 1958**

Consequent upon the repeal of the Mines & Minerals (Regulation and Development) Act 1948, the Mineral Conservation and Development Rules 1955 ceased to be in force and a new sets of rules for conservation and development of minerals placed under the Mineral Conservation and Development Rules 1958 (MCDR 1958) were put in place.

The Mineral Conservation and Development Rules 1958 was made under Section 18 of the Mines & Minerals (Regulation & Development) Act 1957. Most of the provisions of MCDR 1955 were retained in the MCDR 1958. It comprised Five Chapters containing 27 Rules. Chapter I was devoted to preliminary details and definitions.

Chapter II detailed the Notices and Returns to be submitted by the holder of the Prospecting Licence and Mining Lease. Rules 4 to 16 dealt with notices and returns to be submitted by the holder of prospecting licence and mining lease. The major difference included was that every mine owner was required to submit the returns of production on monthly basis instead of the earlier requirement of quarterly/annual submission. A new return for submission of quarterly consumption of explosives was introduced for the first time. Core issues in working of a mine such as stoping of veins, plans and sections were put clearly in the rules to which a miner was required to adhere to.

Chapter III detailed the provisions for shaft sinking and new boreholes, employment of geologists and mining engineers and their qualifications, etc. Rules 17 to 20 dealt with the notices of certain mining operations, such as, sinking of a trial shaft or borehole to a depth exceeding 20 meters, extension of an existing shaft or boreholes, sinking of new shaft or borehole commencing from underground workings, records of shafts and boreholes, preservation of cores, transfer of records, etc. Rule 21 contained provisions of employment of geologists and mining engineers. The qualifications of geologists and mining engineers were specified.

Chapter IV dealt with the examination of minerals and issuing of directions. Rule 23 empowered Director, IBM to issue directions to mine owner for conservation and systematic development of minerals. As per Rule 24, a mine owner is required to submit a scheme of development of mines together with requisite plans and sections if requisitioned by the Director or any other authorised officer of IBM. Rule 25 empowered Director or any other officer duly authorised by the Government to enter and inspect a mine, area of prospecting licence and take samples.

Chapter V dealt with Revision and Penalty. As per Rule 26, the powers of decision on the revision applications against the order or direction made by the Director, IBM remained with the Central Government. Rule 27 detailed the penalty provisions which remained the same as that of MCDR 1955.

▶ All the mineral deposits which constituted the chain of supply of raw materials to public sector steel plants, and established in the second and third Five year plan periods, were proved by IBM. The major ones amongst them were 180 million tonnes of iron ore in Madhya Pradesh, 86 million tonnes of flux-grade limestone and 10 million tonnes of dolomite.

**Publication on Mineral Production in India**

Regular inspections of the mines enabled IBM to build up records of all working mines in the country, which formed the basis for the first lot of publications on statistical information by the Regulator. Utilising the information and statistics available with IBM, for the first time a publication titled “Mineral Production in India” for the calendar year 1955 was published.

▶ Important issues on which IBM proffered advice to the Government were in the formulation of policy in regard to mineral development that formed a significant part of the famous Industrial Policy Resolution, 1956; identification of mineral deposits for detailed exploration; various problems of Mining Industry; problems relating to infrastructure for transport of minerals; etc.

**Mineral Concession Rules, 1960**

Consequent upon the repeal of the Mines & Minerals (Regulation and Development) Act 1948, the Mineral Concession Rules 1949 ceased to be in force and new sets of rules for regulating the grant of various mineral concessions placed under the Mineral Concession Rules 1960 (MCR 1960) were put into effect . The MCR 1960 marked a major departure from MCR 1949 in respect of important Schedules viz. Specified Minerals for prior approval of the Central Government for grant of concessions, rates of Royalty and Dead Rent. These schedules were in accordance with the Mines & Minerals (Development & Regulation) Act 1957. The condition of certificate of approval from the State Government concerned, to any person before grant of prospecting licence or mining lease was revoked. In addition, the condition regarding tenure and area of various mineral concessions was incorporated to feature in the MMDR Act itself.

Mineral Concession Rules 1960 which is effective even today consists of ten chapters and comprises 75 Rules and 4 Schedules. Schedule-I prescribes various forms for applications for grant of Reconnaissance Permit, Prospecting Licence, Mining Lease, their receipts, renewal applications, Registers to be maintained by the State Governments for grant of Mineral Concessions, forms of RP, PL and ML deeds, model forms for transfer of PL and ML, etc.

Schedule-II prescribes the application fee for prospecting licence. Schedule-III stipulates the maximum quantities of ores and minerals that can be removed during prospecting operations which has been retained as that provided in MCR 1949, albeit with modifications. This Schedule provides for maximum quantities of ores and minerals that can be carried away by payment of royalty above the limit of free

*The Mineral Conservation and Development Rules 1958 was made under Section 18 of the Mines & Minerals (Regulation & Development) Act 1957.*

*The publication entitled “Mineral Production in India” was published for the first time for the calendar year 1955.*



quantities which was not in existence in MCR 1949. Schedule-III in MCR 1960 specifies only five classes of minerals unlike 13 classes in the MCR 1949. The concept of mortgage of mining lease with the permission of State/Central Governments was introduced for the first time in MCR 1960. Schedule-V specifies Institutions/Banks/ Corporations to whom the lessee can mortgage the mining lease without the consent of the State Government.

Chapter-III deals with the grant of Prospecting Licences in respect of land in which the minerals vest in the Government. Rules 9, 10, 11, 12, 13A, 14, 15, 18, 20 and 21 provide for the procedural aspects for grant of Prospecting Licence. Rule 19 has a provision to allow officers of Central/State Governments for inspection of prospecting area and information to be provide by the PL holder.

General conditions for mining leases were spelt out in Chapter IV. This chapter clearly elaborates procedural aspects for grant and renewal of Mining Leases in respect of land in which the minerals vest in the Government. Details regarding transfer of lease, lapsing of lease if mining operations are not commenced within specified time, etc. are enumerated in this chapter.

Chapter-V deals with the procedure for obtaining a Prospecting Licence or Mining Lease in respect of land in which the minerals vest in a person other than the Government. Chapter-VI provides for grant of Prospecting Licence or Mining Lease in respect of land in which the minerals vest partly in the Government and partly in private persons. Rules 54 and 55 of Chapter- VII provide for revision against the order of the State Governments regarding grant of mineral concessions by the Central Government. Chapter VIII deals with 'miscellaneous' subjects and important amongst them are Rules 64A, 64B, 64C and 64D regarding procedure for computing the Royalty. Rule 69 of Chapter IX enumerates the list of associated minerals. Rules 72 and 73 of Chapter X provide for payment of compensation to owner of surface right and assessment of compensation for damage.

The MCR 1960 is thus more refined and comprehensive framework of regulation for grant of mineral concessions which clearly spells out the various procedural aspects to be followed by the lessor and lessee.

**Second Decade 1961–1970**

Consequent to the passage of the Industrial Policy Resolution 1956, the scope of activities of IBM grew both in intensity and extent. The exploration of mineral deposits particularly those included in the First Schedule to the Industrial Policy Resolution was intensified. The MMRD Act, MCR and MCDR were duly modified in the context of the Industrial Policy Resolution 1956.

- ❑ Regional offices were established at Kolkata, Ajmer, Nagpur and Bengaluru.
- ❑ IBM proved 1,577 million tonnes of coal in Bihar-Odisha and

highlights

Regional offices were established at Kolkata, Ajmer, Nagpur and Bangalore during the decade 1961–1970.

Index of mineral production prepared by IBM became a component of the Index of Industrial Production (IIP) brought out by the Central Statistical Organisation during the decade 1961–1970.

Madhya Pradesh; 157 million tonnes of iron ore in Odisha and Madhya Pradesh; 29 million tonnes of copper ore in Khetri; 73 million tonnes of pyrites in Amjhore; 12 million tonnes of magnesite in Almora; and 0.36 million tonnes of multi-metal ore in Sikkim.

- ❑ IBM's intervention was helpful in the shifting of the site for the township at Kiriburu mine, but for which sizeable reserves of iron ore would have been locked up under the township.
- ❑ Based on the flow sheets developed by IBM, beneficiation plants were set up at Khetri for copper ore and at Rangpo for copper-lead-zinc ore.
- ❑ A number of new publications were started :
  - Mineral statistics of India (Half Yearly)
  - Quick release to Mineral Statistics of India (monthly)
  - Foreign Trade in Minerals and Metals
  - Index Number of Mineral Prices
  - Mineral Stocks

**Decade at a Glance 1961-1970**

	1961/1961-62	1970/1970-71
Number of Reporting Mines	3,210	3,672
Value of Mineral Production (in Rs crore)	181.21	489.34
Index of Mineral Production (Base Year 1980-81)	38.89	66.48
Average Daily Employment in Mines	6,70,986	6,38,283
Percentage contribution to GDP	0.96	0.91
Value of Minerals Export (in Rs crore)	66.68	203.28
Value of Metals Export ((in Rs crore)	19.41	120.00
Value of Minerals Import (in Rs crore)	50.94	170.47
Value of Metals Import (in Rs crore)	150.43	241.99

**Statistical Information on Minerals**

During the decade, with the introduction of comprehensive statutory returns, inflow of data to IBM increased manifolds and the statistical activities of the Bureau took a quantum jump. Index of mineral production prepared by IBM became a component of the Index of Industrial Production (IIP) brought out by the Central Statistical Organisation. Similarly, the index of mineral prices brought out by IBM became a component of the Index of wholesale prices compiled by the Economic Adviser to the Government of India. In addition to these index numbers, index of mineral and metals exports was also introduced.



highlights

**Indian Minerals Yearbook**

The task of collecting, compiling, analysing and publishing the data on mineral production was entrusted to IBM in 1955. Utilising the information so available, a publication entitled “Mineral Production in India” covering data for the calendar year 1955 was for the first time published. As the nature and volume of information subsequently underwent transformation in terms of exclusivity of contents along with voluminous statistical emphasis, these manifested the publication to assume the form of a compendium of mineral information. The publication, in 1959 was published by the title “Indian Minerals Yearbook” (IMYB) – that provided a holistic & detailed coverage of minerals produced in India with information on mineral resources, production, utilisation, foreign trade, etc. This publication today has become a primary reference material for the Government and a complete resource book for the Mining and Mineral Industry.

IMYB contains General reviews that delve into macro-level scenario of the country’s mineral position, citing all indicators relevant to the Mineral sector. It also covers mineral reviews in which data/information on mineral reserves, new mineral explorations, production, stock, value of minerals, mining, consumptions, specific characteristics, industrial activities, international trade, world scenario, future possibilities, etc. are incorporated.

**Third Decade 1971–1980**

Functions of IBM were redefined in 1968 and two new functions viz. providing technical consultancy services to the Mining Industry and preparation of mineral maps as enabler to affirm complete inventory of mineral resources were assigned.

**Mineral Maps**

In 1977, IBM commenced the work of preparing mineral maps as an adjunct to the National Mineral Inventory. Mineral maps were prepared for iron ore deposits of Goa, Bellary-Hospet, and Bihar-Odisha Sector covering about 51,000 hectares. These maps with clear depiction of the available resources became an important aid in planning for detailed exploration.

**National Mineral Inventory**

Mineral resources, as a result of concerted efforts in exploration conducted by GSI, MECL, State Directorates of Geology & Mining and exploration wings of various public and private agencies, saw extensive appreciation in variety and quantity. As a result of these developments, a systematic and organised knowledge of total mineral resource in the country was felt necessary.

This need was met by entrusting IBM with the task of preparing and updating National Mineral Inventory. IBM prepared the first set of inventories of selected minerals in 1971. The National Mineral Inventory so prepared covered 34 metallic minerals and industrial minerals that were available in leasehold as well as freehold areas. The inventory brought into focus the extent of adequacy or otherwise of the mineral endowment in relation to priority areas for further discovery and exploration.

IBM made forays into the field of technical consultancy during this decade. Over fifty technical assignments were undertaken and completed. The work included preparation of mining feasibility reports for an iron ore deposit of Sandur Manganese and Iron Ore Co. in Bellary-Hospet sector, Mailaram copper project and Yeppamana gold project in Andhra Pradesh.

**Decade at a Glance 1971–1980**

	1971/1971-72	1980/1980-81
Number of Reporting Mines	3,758	3,844
Value of Mineral Production (in Rs crore)	503.42	2,310.98
Index of Mineral Production (Base Year 1980-81)	67.52	95.15/100
Average Daily Employment in Mines	6,30,735	7,40,680
Percentage contribution to GDP	0.89	1.41
Value of Minerals Export (in Rs crore)	189.83	1,010.24
Value of Metals Export (in Rs crore)	67.69	98.49
Value of Minerals Import (in Rs crore)	210.29	4,020.61
Value of Metals Import (in Rs crore)	346.27	1,411.38

**Market Survey**

During this decade, IBM embarked on conducting Market Surveys of minerals in which detailed study and analysis of national and international situation in respect of availability of minerals, scale of production, consumption, utilisation and future demand were reported. Forecasts were made on the basis of reserve position, amenability of the ore to beneficiation, production trends, growth rate of economic indicators, micro-analysis using end-use consumption, analysis taking into account techno-economic developments, foreign demands, etc. Important market survey reports released were in respect of Bauxite, Chromite, Kyanite, Sillimanite and Manganese dioxide.

The publication entitled “Mineral Production in India” was published by the title “Indian Minerals Yearbook” (IMYB) in 1959.

IBM prepared the first set of inventories of selected minerals – 34 metallic minerals and industrial minerals – in 1971.

IBM made forays into the field of technical consultancy and market surveys of minerals during the decade between 1971 and 1980.



▶ In addition to various statistical and other periodical publications, a pictorial publication entitled "Indian Mineral Industry at a Glance" was started. Monographs on Asbestos, China Clay, Iron Ore and Manganese Ore were published.

▶ IBM participated in the formulation of the Fifth Five Year Plan for the mineral sector with the Planning Commission.

### Contribution in the Field of Mineral Processing

Based on test work carried out in IBM's laboratory and Pilot Plant, mineral beneficiation plants were set up by Chitradurga Copper Corporation at Chitradurga; Andhra Pradesh Mining Corporation at Mailaram; and Hindustan Zinc Ltd at Maton. Parameters for filtration were successfully determined for Kudremukh Iron Ore project to ensure moisture content below 8 percent in the filtered concentrates, which enabled the project to take off.

### Foundation for Framing Regulation in Offshore Mineral Areas

Bureau's role of advising the Government on all matters connected with mines and minerals assumed special significance during this decade. IBM led a Study Group which prepared a Report on Status of Availability of Manganese Nodules in the Oceans world-wide and evolution of technology for sea-bed mining. IBM also took a leading part in preparing a report advising Government on framing laws for granting prospecting licences and mining leases in the offshore area. Subsequently, the Bureau also participated in the Law of Sea Conferences. It was at the insistence of the Bureau's member in the Indian delegation that the provision for application for reconnaissance was dropped from the single negotiating text, which enabled India in the recent years to undertake reconnoitry operations in deep sea and secure recognition as a pioneer agency to be considered for grant of lease for deep sea mining.

### Fourth Decade 1981-1990

- Very significant contributions were made in stopping indiscriminate limestone mining and environmental damage in Dehradun Mussorie region.
- IBM issued directives to the mine owner of Odisha Chromite belt for dumping of nickeliferous limonite which was not finding immediate market. As a result nearly 12.5 lakh cubic meters amounting to 1.68 million tonnes of nickeliferous limonite with 0.31-1.52% Ni was accumulated for the cause of conservation.
- IBM identified the problem of accumulation and suggested utilisation of iron ore fines in Gua, Kalta, Barsua, Bolani, Bailadila and Rajhara mines which amounts to about 60 million tonnes.
- IBM was entrusted advisory role to the Government in framing the Mineral Conservation and Development Rules 1988.

### highlights

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In 1986, the Mines & Minerals (Regulation and Development) Act 1957 was amended and significant provisions of the requirement of Mining Plan before the grant of mining lease was made compulsory.

### Decade at a Glance 1981-1990

	1981/1981-82	1990/1990-91
Number of Reporting Mines	3,926	4,150
Value of Mineral Production (in Rs crore)	3,739.39	17,343.82
Index of Mineral Production (Base Year 1980-81)	114.80	213.42
Average Daily Employment in Mines	7,49,803	7,98,128
Percentage contribution to GDP	1.93	2.7
Value of Minerals Export (in Rs crore)	1,425.41	6,659
Value of Metals Export (in Rs crore)	93.72	626
Value of Minerals Import (in Rs crore)	4,438.07	11,576
Value of Metals Import (in Rs crore)	1,778.96	4,577

### Wider Coverage in National Mineral Inventory

National Mineral Inventory during the decade enlarged its coverage. The inventory was updated as on 1st January 1985 wherein the number of deposits covered increased from 6,000 to 9,000 as also the coverage of minerals which increased from 34 to 47. Mineral resources presented in the inventory as on 1.1.1985 were based on Indian Resource classification and encompassed techno-economic criteria along with geological consideration. The estimated quantity presented in this classification was not merely the tonnage but additionally indicated whether the quantity was presently useable, or would be used in future after fulfilment of techno-economic criteria. The resource quantities available were also indicated as per industrial specifications. Computerisation of the mineral inventory was also initiated during this decade.

### Mineral Conservation and Development Rules, 1988

In 1986, the Mines & Minerals (Regulation and Development) Act 1957 was amended and significant provisions of the requirement of Mining Plan before the grant of mining lease were made compulsory. During this period, environmental issues were also gaining due importance especially after Bhopal disaster at Union Carbide Factory in 1984. Mining activities were recognised as one of the prime contributors that caused adverse environmental impacts. Hence a need was felt for clear regulatory role of IBM to ensure scientific mining, conservation of minerals and protection of environment. Consequently, the Mineral Conservation and Development Rules 1958 was repealed and a new set of Regulation, namely, 'Mineral Conservation and Development Rules 1988' was promulgated by the Government vide GSR No. 1023(E) dated 24th October 1988.

The Mineral Conservation and Development Rules 1958 dealt mainly with the collection of statistics and submission of notices, and returns by the miners were



replaced by a comprehensive mining regulation. MCDR 1988 that which is effective even today comprises eleven chapters, 66 Rules and a Schedule that consists of 31 forms.

An exclusive chapter is provided for Prospecting operations. Every prospecting licence holder is required to submit a scheme of prospecting to IBM and is required to carry out prospecting operations as per this scheme. The PL holder is also required to submit yearly report of prospecting to IBM.

Chapter-III of the rules deals with mining operations. For the first time, the concept of Mining Plan was introduced according to which no mining operations can be commenced in any area except in accordance with a mining plan duly approved by IBM. The lessee is also required to review Mining Plan at an interval of every five years and submit the Scheme of Mining for the next five years to IBM for approval. The lessee is required to carry out mining operations as per approved Mining Plan and Scheme of Mining. Detailed operational procedure for opencast mining, underground mining operations, separate stacking of non-saleable minerals, sub-grade minerals, requirement of beneficiation studies, maintenance of records for running of plant and machinery, etc. are provided in the rules.

Chapter IV deals with Plans and Sections to be maintained by every mining lease holder. It provides the general requirements of Plans and Sections, their type, frequency for updating and submission to IBM.

Recognising the need of mining operations in an eco-friendly manner, a separate chapter (Chapter V) on various environmental issues related to prospecting and mining operations has been introduced. Rules 31 to 41 provide for protection of environment, removal and utilisation of top soil, storage of overburden, waste rock, reclamation and rehabilitation of land, precaution against ground vibrations, air pollution, noise, control of surface subsidence, discharge of toxic liquid, permissible limits & standards, restoration of flora, etc.

In Chapter VI, the duties of mining engineers and geologists deployed to carry out prospecting and mining operations which were not specified in MCDR 1958, have been clearly spelt out.

Chapter VII that deals with notices and returns, remained more or less similar to MCDR 1958. However, as per technological developments and changes in market demand, grade classifications of minerals to be provided in the Monthly and Annual returns of production have been modified. Annual return of production has been made more comprehensive to enable collection of host of information for compilation of various statistical data, analysis and dissemination.

Examination of minerals and issue of directives, Revision and penalty remained more or less similar to MCDR 1958 with minor modifications such as enhancement of penalty and provision for imprisonment. The powers to decide revision cases against the order or direction of IBM officer sub-ordinate to Controller General and of State Government officer have been delegated to the Controller General, IBM.

highlights

*In November 1988, IBM Headquarters was shifted to its own building "Indira Bhavan" situated on a sprawling verdant patch of land at Civil Lines, Nagpur.*

*During the decade between 1981 and 1990, more than 200 geological assignments covering an area of more than 7700 hectares were handled by IBM for almost all minerals mined in the country.*

Regulatory functions have been strengthened and IBM is vested with powers for effecting suspension of mining operations in such cases where it is noticed that mining activities are carried out in contravention of the concerned approved Mining Plan or Scheme of Mining. Provisions for prohibition of deployment of persons in a mine posing immediate threat to the conservation of minerals or to environment, have also been incorporated. Thus effectuation of MCDR 1988 has repositioned IBM from mere collector of mineral statistics to Regulator of mining operations.

- ▶ Market Surveys in respect of five minerals and Monographs on Bauxite, Chromite and Limestone & Dolomite were published.
- ▶ Bulletin on Granite and Bulletin on Marble were prepared by IBM.
- ▶ IBM developed a novel method to beneficiate low-grade kyanite ores from Singhbhum district and Bhandara district for Bhilai Steel Plant. The concentrates obtained were suitable for use in the manufacture of refractory bricks.
- ▶ Improved processes were developed by the Ore Dressing Division of IBM for treatment of three complex polymetallic sulphide ores.
- ▶ More than 200 geological assignments covering an area of more than 7700 hectares were handled by IBM for almost all minerals mined in the country.
- ▶ IBM prepared 13 feasibility reports of mining projects. Mines were opened up on the basis of these reports.

IBM's Own Building

In November 1988, IBM Headquarters was shifted to its own building "Indira Bhavan" situated on a sprawling verdant patch of land at Civil Lines, Nagpur. The nine-storied building having four wings, was constructed by the Central Public Works Department at a budget outlay of Rs 600 lakhs. The building with a plinth area of 25,000 sq.m was completed in three years. The central core, 10 m x 10 m size, that is open up to the ninth floor is specially covered with fibre glass roof that appears as a quartet dome which facilitates flow of natural light. Four halls, housing the Library, Computer, Training Centre, etc. are centrally air-conditioned, and other office halls are centrally air-cooled. Dholpur stone spread used on the facing remarkably distinguishes the external surfaces of the imposing building.



Threshold Value of Minerals

During the year 1989-90, IBM prescribed threshold values of 13 minerals. These values were based on the beneficiability and/or marketability of a mineral for a given region and at a given time, below which a mineral obtained after mining, can be discarded as waste.



The Regulator fixed these values to further strengthen the cause of scientific and systematic mining with due emphasis on conservation of minerals. These values were brought out for the first time in 1990. The quantum of mineral production and its value have increased manifold in the country and pertinently the scientific and systematic mining together was in need of a system where besides extraction, conservation was equally in focus.

### Fifth Decade 1991–2000

- Modern Mineral Processing Laboratory & Pilot Plant of IBM at Nagpur was established with UNDP assistance at a total cost of Rs.18.22 crore that comprised Government input of Rs.15.19 crore and UNDP assistance of US\$ 2.5 million. The R&D centre has since become a centre of excellence and caters to the needs of mining/mineral processing industries.
- IBM rendered assistance for setting up of Mineral Testing Laboratory in Bhutan under Indo-Bhutan cooperation.
- An Environmental Analysis Laboratory was set up with a purpose to address the issue of protection of Environment. The laboratory has now secured recognition of the Central Pollution Control Board.
- IBM conducted an "International Symposium" on Mineral Beneficiation in 1994 which was attended by over 400 scientists representing 200 organisations.
- Forty Technical Assignments were handled by IBM.
- Monographs on Copper, Rock Phosphate, Magnesite, Talc, Soapstone & Steatite, Kyanite & Sillimanite and Bauxite were published. A bulletin on "Environmental Aspects of Mining Areas" was prepared. Market Survey reports on Kyanite & Sillimanite, Marble, Chromite, Manganese ore and China clay was prepared.

### National Mineral Policy (NMP), 1993

In pursuance of the reforms initiated by the Government of India in July, 1991 in fiscal, industrial and trade regimes, the National Mineral Policy was announced in March, 1993. The National Mineral Policy recognised the need for encouraging private investment including foreign direct investment, and introducing state-of-the-art technology in the Mineral Sector. The policy stressed that the Central Government, in consultation with the State Governments, shall continue to formulate legal measures for regulation of mines and development of mineral resources to ensure basic uniformity in mineral administration so that the development of mineral resources keeps pace and is in consonance with the national policy goals.

### highlights

Modern Mineral Processing Laboratory & Pilot Plant of IBM at Nagpur was established with UNDP assistance during the decade between 1991 and 2000.

In line with the New Industrial Policy, the National Mineral Policy, 1993 was pronounced and in line with the National Mineral Policy, 1993, the Mines and Mineral (Regulation and Development) Act, 1957 was amended in 1994 and in 1999.

### Decade at a Glance 1991–2000

	1991-92	1999-2000
Number of Reporting Mines	4,033	3,209
Value of Mineral Production (in Rs crore)	20,754	52,307
Index of Mineral Production	228 (Base Year 1980-81)	127.56 (Base Year 1993-94)
Average Daily Employment in Mines	8,07,037	6,52,071
Percentage contribution to GDP	2.7	2.34
Value of Minerals Export (in Rs crore)	8,343	32,752
Value of Metals Export (in Rs crore)	1,115	5,532
Value of Minerals Import (in Rs crore)	14,804	71,878
Value of Metals Import (in Rs crore)	3,830	29,674

### Changes Between 1991 and 2000 Based on the Amendments to MMDR Act and Rules Made Thereunder

India entered the era of market economy in 1991 through privatisation of productive enterprise, deregulation of the industrial organisation and liberalisation of trade regimes with the adoption of the New Industrial Policy. Under this new Industrial policy, the hitherto reserved sectors like power, mining and metallurgical industries have been opened to private sector investment, both domestic and foreign to attract continuous flow of funds and technology into the country. In line with the New Industrial Policy, the National Mineral Policy, 1993 was pronounced. The National Mineral Policy, 1993 made a deviation from the earlier policy by de-reserving the hitherto reserved minerals of basic and strategic importance and threw open the mineral sector fully for private initiative and investments, both domestic and foreign.

In line with the National Mineral Policy, 1993, the Mines and Minerals (Regulation and Development) Act, 1957 was amended in 1994 and in 1999. Subsequently, the cascading amendments have also been made in the Mineral Concession Rules, 1960 and Mineral Conservation and Developments Rules, 1988. The important salient features of these amendments are enumerated below:

### Amendments effected in Mines and Minerals (Regulation and Development) Act, 1957

- **Section 1(1)** The Mines and Minerals (Regulation and Development) Act, 1957 has been renamed as Mines and Minerals (Development and Regulation) Act, 1957, thus giving more thrust on the development rather than regulation only.
- **Sections 3 & 4** The concept of 'reconnaissance permit' as a stage of operation distinct from and prior to actual prospecting operations has been introduced.
- **Section 4A (4)** The period before which a mining lease can lapse, if no mining



- operations commenced or has discontinued, has been increased from one year to two years.
- **Section 5(1)** Sixteen minerals have been deleted from the first schedule of the Act thereby prior approval of the Central Government is required only for Fuel minerals, Atomic minerals, Asbestos, Bauxite, Chrome ore, Copper ore, Gold, Iron ore, Lead, Manganese ore, Precious stones and Zinc before the grant of mineral concession.
  - **Section 5(2)(b)** State Governments have been delegated powers for approval of mining plans in respect of such category of mines as may be specified by the Central Government.
  - **Rule 22 (4A) of MCR, 1960** Accordingly State Government Officers having prescribed qualification, experience and pay-scale can now approve the mining plans of 29 non-metallic or industrial minerals in respect of opencast mines only. However, in any State if there is no officer available fulfilling the prescribed qualification, experience and pay-scale, the mining plans in respect of that State shall be approved by the Central Government.
  - **Section 6 (1) (a), (aa) & (b)** The area restrictions of reconnaissance Permit/Prospecting Lease/Mining Lease have been substantially liberalised by making such restrictions applicable Statewise instead of the country as a whole.
  - **Section 6(1)(c)** The State Governments have been empowered to grant Reconnaissance Permit, Prospecting Licence or Mining Lease in any area, which is not compact or continuous in the interest of development of minerals.
  - **Section 7** The period for which prospecting licence can be granted has been increased to three years initially and these licences can be renewed at the discretion of the State Governments further, so that the total period does not exceed five years. However, for renewal in respect of fuel and atomic minerals prior approval of the Central Government is necessary.
  - **Section 8** The tenure of mining lease has also been enhanced from 20 years to 30 years maximum in the first instance. The provision of minimum period of 20 years has been inserted. The State Governments have been delegated powers to renew all mining leases for first time in respect of non-fuel and non-atomic minerals without reference to the Central Government. However, for second and subsequent renewals the opinion of the Indian Bureau of Mines is essential.
  - **Section 9** Royalty rates on major minerals (other than coal and lignite) have been revised in parity with international rates, and on ad-valorem basis for certain minerals.
  - **Sections 21(4)(A) & 23** The legal provisions for curbing illegal mining have been strengthened by delegation of powers of authorisation for check, search entry, etc., to the State Government, incorporating provisions of confiscation apart from existing powers of seizure in respect of tools, equipment, etc., used in illegal mining, introducing legal provisions for transport and movement of minerals so as to curb movement of illegally mined minerals.

## highlights

*State Governments have been delegated powers for approval of mining plans in respect of such category of mines as may be specified by the Central Government.*

*The State Governments have been empowered to grant Reconnaissance Permit, Prospecting Licence or Mining Lease in any area, which is not compact or continuous in the interest of development of minerals.*

**Changes Specific to Mineral Concession Rules, 1960**

- **Rules 11(4) & 24A(10)** The State Governments have been empowered to condone the delay in submitting the application for renewal of Prospecting Licence /Mining Lease provided the licence/lease is valid.
- **Rule 22BB 1(a)** A non-refundable processing fees for Mining plan has been introduced at the rate of Rs 1000/- for every sq. km or part thereof of mining area covered in mining lease.
- **Rule 28(4) of MCR 1960** Special circumstances have been considered for non-commencement of mining operations for a continuous period of more than two years –
  - ▲ in case of mining lessee who has undertaken reconnaissance operations.
  - ▲ where capital investment for mine development is planned to be more than Rs 200 crores.
  - ▲ where mine development is likely to take more than 2 years.

These conditions are in addition to other circumstances as mentioned in the Rule.

- **Rule 31 (2)** The date of commencement of mining lease for which mining lease is granted has to be considered from the date on which a duly executed deed has been registered.
- **Rule 35** Criteria of end use of mineral has been included for deciding the preferential right for grant of Reconnaissance Permit, Prospecting Licence or Mining Lease.
- **Rule 37** The State Governments have been empowered to sanction the transfer of mining leases of all minerals except for fuel and atomic minerals.
- **Rule 38** The State Governments have been empowered to amalgamate the mining leases of all minerals except that of fuel and atomic minerals.
- **Rule 63A** Provision has been made in the rules by which following time limits have been prescribed for conveying a decision on applications for mineral concessions.
  - ▲ Reconnaissance Permit : Within six months from the date of receipt of application
  - ▲ Prospecting Licence : Within nine months from the date of receipt of application
  - ▲ Mining Lease : Within twelve months from the date of receipt of application

**Changes Specific to Mineral Conservation and Development Rules, 1988**

- **Rules 3A to 3E** A separate chapter regarding Scheme of Reconnaissance Operations has been inserted giving details thereof.
- **Rule 27(4)** Category 'B' mines have been exempted from updating plans and sections every three months. Such mines now have to update plans and sections every twelve months.
- **Rule 42(1)(b)** Category 'A' mines have been further classified as fully mechanised category 'A' mines and other than fully mechanised category 'A' mines.



- **Rules 42 (6) (a),(b) & (C)** have been omitted, thereby exempting the necessity to obtain permission to act as Mining Engineer in respect of category 'B' mines, if a person fulfils the qualifications and experience as laid down in the rules.
- **Rule 58** Penalty for contravention of Rules has been enhanced to maximum two years imprisonment and/or Rs 50,000/- from the hitherto one year imprisonment and/or Rs 5000/-.

### Regional Environmental Impact Assessment Studies

Regional Environmental Impact Assessment (REIA) study was taken up by IBM for the first time in the year 1999-2000 in chromite mines in Sukinda area in Jajpur district, Odisha and in iron ore mines in North Goa district, Goa. Broadly the scope of the studies included environmental monitoring so as to establish the baseline environmental status of the study area; identifying various existing pollution loads in the ambient levels; predicting levels of pollutants in the study area due to the mining activities; evaluating the predicted impacts using environmental impact assessment etc. The REIA report is usually based on twelve months field data generated on meteorology, ambient air quality, surface & ground water quality, soil characteristics, noise levels, flora & fauna to represent four seasons at the site and data collected from various secondary sources to study the socio-economic profile, land-use pattern, etc., and the Report further recommends environmental control measures and monitoring system for amelioration of the mine environment.

- Analytical Laboratory of IBM at Nagpur became functional from 1998.
- A regional Office of IBM at Bhubaneswar and a sub-regional office at Guwahati started functioning from 1.4.1998.
- A Mega Event of Ministry of Mines was organised at Nagpur in August 1998 to celebrate the 50th Anniversary of India's Independence.
- IBM-BRGM Project "Mineral Resources and Intelligence System (MRIS) Database at IBM with project cost of 3.48 million French francs was successfully completed in 1998. Under this project, integration of various existing databases, such as, National Mineral Inventory and Beneficiation, Mines-cum-production, Mining Lease and External Trade was successfully completed.
- First phase of the third IBM-BRGM project on "Technical Management and Information System (TMIS) commenced in November, 1998.
- National Mineral Inventory as on 1.4.1990 and 1.4.1995 was updated covering 47 and 61 minerals respectively.
- Website of IBM was launched on 28.7.1999 through NIC, New Delhi.
- IBM contributed significantly for formulation of "Granite Conservation and Development Rules 1999".

### highlights

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*IBM-BRGM Project "Mineral Resources and Intelligence System (MRIS) Database at IBM was successfully completed in 1998.*

### Capacity Building in Mining Environmental Management

A project on "Development of Application Techniques in relation to Environmental Management and Waste Recovery" at a cost of 16 million French Francs was taken up by IBM with the assistance of BRGM, France, in August 1997 and was successfully completed by October 2000. This project enhanced IBM's capabilities to assess existing potential impacts of mining operations and finding mining site-specific solutions. A mobile environmental monitoring laboratory equipped with state-of-the-art equipment for monitoring air quality was also acquired by IBM under this project.

### Introduction of Reconnaissance Permit

With an objective to give momentum for mineral exploration at regional level and to identify the mineral potential areas in the country, the concept of Reconnaissance Permit was introduced in the Indian Mineral Sector in January 2000. Amendments in MCR 1960 and MCDR 1988 were made to incorporate the provision of Reconnaissance Permit. Rules 4, 4A, 5, 6, 7, 7A,7B and 7D of Chapter-II of MCR 1960 deal with the procedural aspects for grant of Reconnaissance Permit, their conditions, etc. The provisions in MCDR 1988 mandate every reconnaissance permit holder to submit a scheme of reconnaissance to IBM and to carry reconnaissance operations as per this scheme. The RP holder is also required to submit yearly report of reconnaissance to IBM.

### Sixth Decade 2001-2010

- Project as S&T Scheme on "Study of Pollution levels in Asbestos Mines and Processing Plants of Rajasthan for Lifting ban on expansion of asbestos mining was completed.
- A Report on the scientific mining of iron ore for export from Bellary- Hospet, Karnataka, was prepared.

### Decade at a Glance 2000-2010

	2000-01	2009-10
Number of Reporting Mines	3,191	3,030
Value of Mineral Production (in Rs Crore)	58,765	1,27,921
Index of Mineral Production (Base Year 1993-94)	132.73	193.12
Average Daily Employment in Mines	6,17,802	5,10,988
Percentage contribution to GDP	2.39	2.45
Value of Minerals Export (in Rs crore)	34,411	1,09,296#
Value of Metals Export (in Rs crore)	7,825	82,239#
Value of Minerals Import (in Rs crore)	96,522	5,14,509#
Value of Metals Import (in Rs crore)	30,189	1,99,488#

# Pertains to year 2008-09



highlights

Multi-minerals Maps with Forest Overlays

In the year 2002, as per the directives of Ministry of Mines and Ministry of Environment & Forests, IBM initiated the work of preparing multi-mineral leasehold maps with forest overlays to cover the entire country in collaboration with Geological Survey of India, Ministry of Environment & Forests and Survey of India. Up to March 2010, 839 multi-mineral maps with forest overlays of ten mineral-rich States on 1:50,000 scale covering an area of 3,30,369 hectares in the States of Chhattisgarh, Odisha, Jharkhand, Bihar, Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Rajasthan and Gujarat have been prepared.

The Mineral Map Cell of IBM is equipped with AUTO CAD 2004, AUTO CAD MAP 2008, MICRO STATION V8 and GEOMEDIA PROFESSIONAL. The lease details from mining plans and schemes of mining, forest density maps from Forest Survey of India and details of regional geology from published maps of Geological Survey of India are used in preparing minerals maps.

Multi-mineral maps with forest overlays of Madhya Pradesh and Uttarakhand were in progress during the year 2010-11 and for that of Uttar Pradesh, Haryana, Himachal Pradesh, Jammu & Kashmir, North-eastern States, West Bengal, Goa and Kerala are proposed for the year 2011-12. The activity of preparation of mineral maps for the entire country will be completed by the end of 2011-12, i.e., the terminal year of 11th Five Year Plan. It is expected that 1,040 maps will be generated for the mineral-rich parts of the entire country.

- ▶ A report on the Expert Committee on Chromite to review the exploration, production and export policies etc., was prepared.
- ▶ IBM contributed significantly for formulation of "Marble Development and Conservation Rules, 2002".
- ▶ IBM-BRGM Project on "Implementation of United Nations Framework Classification for Mineral Resource Management in India" was completed satisfactorily in April 2003 and the application software developed is being utilised in IBM for implementation of UNFC for National Mineral Inventory.
- ▶ S&T Project on "R & D in Enhanced Gravity and Magnetic Separation Studies for Recovery of Values from Plant Tailings and Ore Slimes" was completed.
- ▶ S&T scheme on "Attenuation of Hexavalent Chromium in Sukinda Chromite Belt by Bio-remediation Technology" was completed.
- ▶ Concept of Mine Closure Plan accompanied by 'Financial Assurance' was introduced in the Indian Mining Statute having two components, such as, 'Progressive Mine Closure Plan' (PMCP) and 'Final Mine Closure Plan' (FMCP) and the responsibility for its monitoring has been vested in IBM.

National Mineral Inventory as per UNFC

Country specific reporting system of mineral resources, with different concepts and terminologies was not conducive to investors. Investors look for resource information which they can comprehend. The United Nations Framework Classification (UNFC) of mineral resources was therefore, adopted in India. The UNFC system classifies the resource estimation based on three-digit code representing Geological study, Feasibility and Economic viability. In the year 2000 for the first time, the National Mineral Inventory as on 1.4.2000 was re-structured and codified as per UNFC. The subsequent inventory as on 1.4.2005 covered 65 minerals and about 16,000 mineral deposits and provides data as per UNFC. The National Mineral Policy, 2008 has once again emphasised the need for continuing the preparation of National Mineral Inventory as per UNFC. Accordingly, the work of updating NMI as on 1.4.2010 was initiated to present comprehensively the latest position of mineral resources of the country fully compliant with the UNFC. Five new minerals have also been included in the exercise of updating NMI as on 1.4.2010. In toto 70 minerals are to be covered in the NMI as on 1.4.2010.

- ▶ IBM-BRGM Project on "Supply of Laboratory Equipment to IBM" has been completed. The instruments/equipment procured under this project have enhanced the capability of Ore Dressing Division.
- ▶ Threshold values of minerals have been updated and notified for stacking of minerals.
- ▶ IBM organised a National Seminar on "Scientific and Sustainable Mining" at Goa on 15th July 2006.

Mine Closure Plan

Mines abandoned or closed without adequate protective measures can have serious environmental and social consequences. Therefore, the concept of systematic and scientific mining was further developed and expanded beyond mining operations to closure of mining operations in the background of primacy of environmental and socio-economic concerns. It was held that mine closure operations were as important as the mining operations. Thus the concept of Mine Closure Plan was introduced in Indian Mineral Industry in April 2003. IBM prepared and issued guidelines for the purpose of preparation and submission of Mine Closure Plan.

The idea behind the mine closure plan is to ensure that once the mining operations cease, the mined out areas do not pose problems for the local inhabitant and ecology. For the purpose, Progressive Mine Closure Plan (PMCP) and Final Mine Closure Plan (FMCP) were introduced through amendments in Mineral Concession Rules 1960 and Mineral Conservation & Development Rules, 1988. Indian Bureau of Mines was authorised to approve Mine Closure Plans so as to ensure that the mining lessee implement the requisite measures for reclamation, rehabilitation and that of environment protection stipulations.

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*The concept of Mine Closure Plan was introduced in Indian Mineral Industry in April 2003.*



The lessee is required to submit a PMCP, as a part of the mining plan, enumerating preparatory works to be progressively undertaken for closure of the mine from the opening stage itself. The PMCP includes proposals for backfilling/reclamation/dump stabilisation/afforestation, etc., which have to be carried out simultaneously while continuing mining operations in such a way that the mine site is ready for rehabilitation at the time of abandonment/closure. While submitting the Progressive Mine Closure Plan, every mining lessee is required to submit Financial Assurance depending on the category of mine and the area put to use for mining and allied activities. Such a Financial Assurance is released only after all proposals as enumerated in the approved Mine Closure Plan have been implemented by the mining lessee.

Mining lessee is required to submit FMCP for approval atleast one year before the closure of mining operations, for the purpose of decommissioning, reclamation and rehabilitation measures in the mine or part thereof. The lease can be determined only after issue of Certificate by IBM to the effect that protective, reclamation and rehabilitation work in accordance with the approved Mine Closure Plan have been carried out.

### Revision of Threshold Value of Minerals

Considering the present advancement of ore beneficiation techniques as well as changing scenario of the consumption pattern of different minerals, IBM took a lead to review and revise threshold values fixed earlier. Intensive research along with consultations were held with all stakeholders. The revised threshold values of minerals were notified by IBM in October 2009. The revised threshold values mandated miners to comply with the following:

- a) All the non-saleable/un-usable minerals/ores above the limit prescribed in the threshold values are required to be stacked separately in the area earmarked for the purpose.
- b) The mineral/ore stock above the limit prescribed in the threshold values of minerals require to be properly maintained in a bound register indicating the quantity and quality of material stacked. The monthwise inventory of such materials needs to be updated.
- c) The overburden and waste material obtained during mining operation cannot be allowed to be mixed with the materials above the threshold values of minerals stacked.

Systematic reassessment of mineral resources in the country based on the revised threshold values will augment the mineral resources and reserves substantially as many lower grade minerals which were hitherto not taken into resources/reserves category, will now be added to mineral inventory.

- ▶ A 'Clay Laboratory' was established at Kolkata in November 2008 to cater to the needs of the north-eastern region.
- ▶ An ambitious project on "Computerised Online Register of Mining Tenements System" was taken up by IBM to develop an online National Mineral Information System.

### highlights

*A 'Clay Laboratory' was established at Kolkata in November 2008 to cater to the needs of the North-eastern region.*

*An ambitious project on "Computerised Online Register of Mining Tenements System" was taken up by IBM to develop an online National Mineral Information System during the decade between 2001 and 2010.*

### United Nations Framework Classification of Minerals Resources

In India traditionally mineral resources were classified into proved, probable and possible categories based on the degree of confidence of various geological parameters. After opening of Mineral Sector for private participation, a need was felt to classify mineral resources of the country as per international standards. Accordingly, India switched over to United Nations Framework Classification (UNFC) for categorisation of mineral reserves and resources.

The UNFC system classifies the resource estimation based on three-digit code representing Geological study, Feasibility and Economic viability. 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. For example, the highest category will be (111), i.e., economically viable, feasibility study completed and geologically explored in detail; and the lowest category will be (334), i.e., uneconomic, no feasibility study done and only reconnaissance survey carried out.

The framework function of the UNFC reserves/resource classification has enhanced communication on a national and international level, provided for better understanding and firm knowledge of reserves/resources available and improved investment possibilities in solid fuels and mineral commodities.

Guidelines for classification of mineral reserves and resources as per UNFC have been incorporated in the MCDR 1988 and Indian Bureau of Mines has directed all miners to assess the mineral resources as per UNFC and also has begun updating mineral inventory as per UNFC. For dissemination of knowledge of UNFC, the Training Centre of IBM conducted a number of training programmes for industry personnel, officers of Directorate of Mines & Geology, RQPs, consultants, etc. which presently has become an ongoing activity. No mining plan and scheme of mining are now approved without the assessment of mineral resources as per UNFC.

### Regulations for Development of Offshore Minerals

To provide for development and regulation of mineral resources in the territorial waters, continental shelf, exclusive economic zone and other maritime zones of India and to provide for matters connected therewith or incidental thereto, the Government of India enacted the Offshore Areas Minerals (Development and Regulation) Act 2002 (OAMDR Act 2002). The Offshore Areas Mineral Concession Rules 2006 (OAMCR 2006) were also promulgated under this Act. The Offshore Areas Minerals (Development & Regulation) Act, 2002 and rules made thereunder provide for grant, renewal, termination of mineral concessions, such as, Reconnaissance Permit, Exploration Licence and Production Lease in offshore areas, and also under its ambit stipulates for scientific and systematic exploration and mining of offshore minerals, protection of marine environment, collection of royalties, adherence to



UN Convention on Law of the Sea, 1982 and all other incidental issues. The OAMDR Act 2002 and OAMCR 2006 came into force on 15th January 2010. The Controller General, Indian Bureau of Mines has been declared as 'Administering Authority' to discharge the various functions under the OAMDR Act 2002. The Administering Authority also notified the mineral bearing offshore blocks for grant of Exploration Licence. With initiation of process of grant of mineral concessions in offshore areas, India has joined the group of select few countries the world-over for the development of offshore minerals.

### INDIAN BUREAU OF MINES — Important Milestones

1.3.1948	Indian Bureau of Mines established, with its Headquarters at New Delhi.
29.2.1953	Drilling Division transferred to IBM from Geological Survey of India.
1955	Ore Dressing Laboratory established at New Delhi.
1.7.1956	Bengaluru Regional Office established.
December 1956	Ajmer Regional Office established.
1.12.1956	Nagpur Regional Office established.
1956	Kolkata Regional Office established.
1959	First Issue of IBM's flagship publication "Indian Minerals Yearbook" (IMYB) brought out.
1.6.1966	Drilling Division again transferred to Geological Survey of India.
1958	IBM Headquarters shifted from Delhi to Nagpur.
October 1959	Jammu Sub-Regional Office established.
1960	Ore Dressing Laboratory shifted from Delhi to Nagpur
1961	Mines Control & Conservation of Minerals Division properly set up under two Controllers of Mines for South Zone & North Zone respectively
1962	Ore Dressing & Pilot Plant set up at Nagpur.
1969	Goa Regional Office established.
1970	Hyderabad Regional Office established.
1970	Hazaribagh Regional Office was carved out from Kolkata Regional Office
6.8.1974	Jammu sub-Regional office upgraded to Regional Office.
1974	Nellore Sub-Regional Office established.
1974	Udaipur Sub-Regional Office established
1976	Nellore & Udaipur sub-Regional Offices upgraded to Regional Office.

### highlights

*The Offshore Areas Minerals (Development and Regulation) Act 2002 and Offshore Areas Mineral Concession Rules 2006 came into force on 15th January 2010. The Controller General, Indian Bureau of Mines has been declared as an 'Administering Authority' to discharge the various functions under the OAMDR Act 2002.*

10.12.1982	Madras Regional Office established by bifurcating Nellore Regional office. Nellore office converted into sub-Regional office.
October 1981	Regional Ore Dressing Laboratory & Pilot Plant was set up at Ajmer
1983	Regional Ore Dressing Laboratory & Pilot Plant was set up at Bengaluru
1984	Jammu Regional Office shifted to Dehradun.
1985	Office of the Controller of Mines (SZ) transferred from Nagpur to Bengaluru. Office of the Controller of Mines (NZ) transferred from Nagpur to Ajmer. Office of the Controller of Mines (Central Zone) was created at Nagpur.
22.7.1987	Hazaribagh Regional Office shifted to Ranchi.
November 1988	IBM Headquarters shifted to own building "Indira Bhavan" Civil Lines, Nagpur
December 1988	Post of Chief Controller of Mines created and designated as Divisional Head of MCCM Division.
1990	The first Mines Environment and Mineral Conservation Week was observed under the aegis of Goa Regional Office
28.8.1994	Central Ore Dressing Laboratory & Pilot Plant upgraded into Modern Mineral Processing Laboratory & Pilot Plant with UNDP assistance at Nagpur
1.4.1998	Bhubaneswar Regional Office established
1.4.1998	Guwahati Sub-Regional Office established
6.5.1998	Modern Analytical Laboratory established at Nagpur
6.8.1998	Mega Event organised by IBM to mark the 50th year of India's independence.
28.7.1999	IBM's website launched through NIC
November 2008	Clay Laboratory established at Kolkata.
15.1.2010.	Controller General, Indian Bureau of Mines has been declared as an 'Administering Authority' to discharge the various functions under the OAMDR Act 2002.
29.03.2012	First phase of online submission of returns under Rule 45 of MCDR 1988 was dedicated to the nation.