

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES**

No.T-40020/CGBM/IBM AB-17/2011

Indira Bhavan, Civil Lines
Nagpur-440 001
Dated 12.07.2012

To,
All the Members of the
IBM Advisory Board

Subject:- Agenda Item for the First Meeting of the re-constituted IBM Advisory Board (17th in Series) scheduled on 16th July 2012 at New Delhi

Sir,

Please refer to the letter No. 35/1/2011- M.III dated 6th July 2012 from the Director, Ministry of Mines, Government of India regarding first meeting of the reconstituted IBM Advisory Board to be held under the Chairmanship of Secretary (Mines) on 16th July 2012 at 11.00 AM at New Delhi.

In this connection, I am directed to enclose herewith Agenda Item for the meeting. The venue of the meeting is Lecture Room-II, Basement (Annexe), India International Centre, 40, Max Mueller Marg, New Delhi-110 003. It is, accordingly requested to make it convenient to attend the meeting.

Yours faithfully,

Encl: As Above

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GOVERNMENT OF INDIA

MINISTRY OF MINES

XVII Meeting of the IBM Advisory Board

Agenda Papers



INDIAN BUREAU OF MINES

New Delhi

Date :16th July 2012

Charter of Functions of IBM

1. To promote systematic and scientific development of mineral resources of the country (both on-shore and off-shore).
2. To approve mining plans, schemes and mine closure plans having regard to conservation of minerals and protection of mines environment.
3. To collect, collate and maintain data
4. base on exploration, prospecting, mines and minerals and to bring out publications/bulletins highlighting the problems and prospects of mining industry.
4. To play a pro-active role in minimizing adverse impact of mining on environment by undertaking environmental assessment studies on regional basis.
5. To conduct suo moto techno-economic field studies in mining, geology, mineral processing and environmental aspects, including analysis of ore and minerals and to promote R&D activities in these areas.
6. To provide technical consultancy services on promotional basis within the country and abroad in the field of mining, geology, mineral processing and environment.
7. To provide training to the scientific, technical and other cadres of the Department and persons from the mining industry and other agencies of human resource development.
8. To advise the Government on matters in regard to mineral industry, relating to environmental protection and pollution control, export & import policies, trade, mineral legislation, fiscal incentives and related matters.
9. To promote awareness about conservation, systematic and scientific development of mineral deposits and protection of environment including restoration, reclamation and rehabilitation of mined out areas through exhibitions and audio visual media.
10. To promote and monitor community development activities in the Mining areas.
11. To undertake any such other activity as may become necessary in the light of the developments in the field of geology, mining, mineral beneficiation and environment.

(As per Resolution No. 35/1/2002-M.III dated 6th March 2003)

Agenda for XVII Meeting of the IBM Advisory Board

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Agenda Item No.17.01**Action Taken Report on the decisions of the 16th Meeting of the
IBM Advisory Board held on 27.7.2010**

The 16th Meeting of Indian Bureau of Mines Advisory Board was held on 27th July, 2010 at New Delhi under the Chairpersonship of Smt. Santha Sheela Nair, Secretary (Mines).

Action Point 1

Secretary (Mines) stated that media was interpreting violations of rules and regulations as a case of illegal mining. Violations should be classified as serious or major, less serious and common or minor. Major violations should be visited with stringent punishment to set an example for others. Minor violations committed unintentionally should not attract punishment but advice/guidance from IBM officers.

Action Taken Report:

Mining Operations are required to carry out as per provisions enumerated in the approved Mining Plans/Schemes of mining and in compliance with MCDR, 1988. Inspections of mines are being carried out to ensure that mining operations are done as per norms. Any deviation to prescribed norms attracts violation of MCD Rules, 1988. Defaulter mine owners are issued violation letters after inspections, for its rectifications. The violation is pursued for its compliance by following standard procedure.

IBM's Circular No.17 classifying violations under "More Serious, Serious and Less serious" categories is already in vogue. The "More Serious" and "Serious" violation cases are followed up vigorously to its logical end.

In 2010-11 IBM inspected 2177 mines as against the target of 2000 mines, pointed out 1245 violations in respect of 571 mines, of which 575 violations were rectified. Eighteen prosecution cases were launched, 15 cases were decided, 20 cases compounded and mining operations were suspended in 6 Mines.

In 2011-12, IBM inspected 2563 mines as against the target of 2500 mines, pointed out 4013 violations in respect of 1722 mines, of which 1924 violations were rectified. Ten prosecution cases were launched, 5 cases were decided, 09 cases compounded and mining operations were suspended under rule 13(2), 45 and 56 of MCDR, 1988 in 398 mines.

In 2012-13, up to June, 2012, IBM inspected 450 mines as against the yearly target of 2500 mines, pointed out 552 violations in respect of 201 mines, of which 356 violations were rectified. Four prosecution cases were launched, one case each was decided & compounded and mining operations were suspended under rule 13(2), 45 and 56 of MCDR, 1988 in 126 mines.

Further, as directed by the Ministry vide letter no. 16/12/2009-MVI, dated 10.12.2009, IBM constituted Task Force for inspection of mines in endemic areas to check illegal mining. These inspections were carried out apart from routine inspections being carried out by IBM to ensure compliance of Mineral Conservation and Development Rules 1988. The Task Force inspections were conducted during the period from December 2009 to December 2011 in the States of Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra and Orissa. In all 454 mines comprising of minerals like Iron ore, Manganese ore, Dolomite, Limestone, Bauxite etc. were inspected by the Task Force. As a result of these extensive inspections, mining activities have been ordered by the Indian Bureau of Mines to be suspended in 159 mines under rule 13(2) of MCDR, 1988 due to serious violations. Suspension was revoked in 111 cases after due compliance. Terminations of mining leases have been recommended in 9 cases to the respective State Governments.

Action point 2

Secretary (M) stated that the Committee constituted for restructuring of IBM had prepared the draft report after considering views received in this regard from mine owners, RQPs, State Governments, professionals from mining industry and institutions etc. and the same would be presented before the Board for its consideration. She also invited suggestions and comments on the report from the participants.

Action Taken Report:

The IBM restructuring Committee was constituted in the year 2009 under the Chairmanship of the then Joint Secretary and was expected to submit the report by December, 2009. However, the Draft report of the Committee constituted for restructuring of IBM had been uploaded on the website of IBM in September, 2010 inviting suggestions from the stakeholders. To have wider consultations on the draft report, a Stakeholders meeting was held on 20th December 2010 under the Chairmanship of Secretary (Mines). As deliberated in the meeting, 5 separate Sub-Groups and a Peer Committee had been formed to examine and finalize the draft Chapters of the Report and to incorporate suggestions received during the Stakeholders meeting. Two meetings of the Peer Committee were held on 21.2.11 & 11.5.11 and Peer Committee have submitted its recommendations to IBM Review & Restructuring Committee in its meeting held on 11.5.2011. Based on the suggestions received in the Stakeholders meeting held on 20th December 2010 and recommendations of the Peer Committee, the Report was re-modified in May 2011. Meanwhile in the QPR meeting held under the Chairmanship of Secretary (Mines) on 5th May 2011 it was decided to re-examine the issue of continuation of Ore Dressing Division with IBM and ascertain the prospect of separating it from IBM and converting it into a commercial organisation. The issue was deliberated at length in a subsequent meeting held with industry personnel under the Chairmanship of Secretary (Mines) on 30th August 2011. Based on the decisions taken in the meeting held on 30th August 2011, certain portions of the Report were modified and redrafted. The IBM Review & Restructuring Committee suggested segregating various functions in the field of mineral beneficiation as regulatory, regional, mine and commercial level and it was decided to restrict IBM's role to first two levels. Meanwhile the Ministry of Mines submitted Cabinet Note seeking approval for the Mines & Minerals (Development and Regulation) Bill 2011 on 30th August 2011 and supplementary Cabinet Note was submitted on 13th September 2011. The Mines and Minerals (Development and Regulation) Bill, 2011 was approved by the Cabinet and subsequently introduced in Lok Sabha on 12.12.2011. The Draft bill was later referred to the Departmentally Related Standing Committee on Coal & Steel of Parliament for detailed examination. As to detail out the role and function of IBM in the light of the National Mineral Policy and Mines and Minerals (Development & Regulation) Act and Rules framed there under was one of the terms of the reference of the Committee, it

was felt necessary to modify the IBM Restructuring Report in view of the provisions of the Mines & Minerals (Development and Regulation) Bill 2011. The report was thus modified and the final report was ready for submission by 23rd November, 2011. The modified report was discussed again with Secretary (Mines) and accordingly the report which is in compliance with new provisions of Act was discussed in the Committee's meeting held on 11th April 2012 and was subsequently finalized in the meeting held on 24th April 2012. The report was formally submitted by the Chairman on 4th May 2012.

Action point 3

Special Secretary (Mines) suggested that the requirement of manpower may be re-assessed based on actual requirements and the role of IBM envisaged in the National Mineral Policy 2008.

Action Taken Report:

*The Committee considered the suggestions offered in the 16th IBM Advisory Board meeting and submitted the "Report of the Committee for Review and Restructuring of the Functions and Role of IBM" to the Government on 4th May 2012 after reassessing the manpower requirement. The salient features of the report are given at **Annexure II**.*

Action Point 4

Shri L.P. Sonkar, Advisor (M), Planning Commission, stated that CMPDIL, a subsidiary of Coal India Limited, provides consultancy services and IBM should also continue to provide Technical Consultancy services. CMD, NALCO was of the view that they would offer consultancy assignments to IBM as per its Annual Plan. Special Secretary opined that this activity would be helpful for capacity building. However, he was of the view that it should not prepare statutory documents like Mining Plan, etc., while providing consultancy services on Examination of Geological aspects of Mining Plan. Regional Mining Geological Studies should have logical conclusion for beneficiation/upgradation of mineral resources for purposes of mineral conservation. Updation of NMI should be done at frequent intervals. Shri R.K. Sharma, FIMI urged for continuous exchange of ideas and information between IBM and mining industry towards latter's capacity building.

Action Taken Report:

The suggestion that IBM should not prepare statutory documents like Mining Plan, etc., while providing consultancy services on Examination of Geological aspects of Mining Plan, have been noted for compliance.

IBM's Regional Mining Geological Studies have been re-oriented to find out region specific solutions for value addition in order to address the issue of mineral conservation.

National Mineral Inventory is updated for 70 minerals covering over 16,000 deposits. Each deposit has about 400 attributes. For updation, the data is collected from the individual leaseholders - both in private and public sector and for freehold area, from exploration agencies like GSI, DGMs, MECL, etc. The whole process of updation, from data acquisition to computerization, takes about two years. Therefore, the interval of five years was found suitable to update the inventory incorporating the meaningful changes. However after completion of creation of IBM portal to facilitate online submission of returns (both statutory & non-statutory), the data from exploration agencies will be received in digital form and updation of NMI at frequent interval will be possible.

For continuous exchange of ideas and information between IBM and mining industry towards latter's capacity building, interaction forums are ME&MC Week Meetings/Inspections/Celebrations and Annual Recognized Qualified Persons Meetings are being used. In addition as recommended by the Committee for Review & Restructuring of the functions and role of IBM, at each regional office of the IBM 'State Co-ordination Committees' would be formed, in which the regulatory and developmental issues can be discussed.

Action point 5

Secretary (M) pointed out that responsibility of State Governments regarding authenticity of cadastral maps was very critical. Mining lease should not be granted unless original digitized cadastral map duly authenticated by the State Government was submitted.

Action Taken Report:

This scheme 'Computerised On-line Register of Mining Tenement System' has been taken up by the 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 organisations engaged in administration of mineral resources in the country. The Project is being implemented in mineral rich states i.e. Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Orissa, Rajasthan and Tamil Nadu.

In respect of Registry component of the project, the job for preparation of Detailed Project Report (DPR) has been assigned by the NICSI to the consultant M/s. Earnest & Young. DPR has been finalized. A training programme cum workshop had been organized on 17th & 18th November 2011 at IBM HQ, Nagpur for online register for MTS. The Software Development Agency will be finalised based on 'Request for Proposal' (RFP).

The State Governments which will be ready with digitization of land records and Geo-referenced cadastral maps will be integrated into the system.

Action point 6

It was further suggested that salient work done by IBM might be posted on IBM Portal for better publicity and for availing opportunities to get work related to beneficiation.

Action Taken Report:

To initiate the non-legislative measures as enumerated in the National Mineral Policy 2008 and in pursuance to the deliberations held in the 15th Meeting of the Advisory Board of the Indian Bureau of Mines on 7th August 2009 at Chennai, the Working Group constituted to develop a plan for Private Sector, networking of institutions and jobs in the field of mineral beneficiation, has strongly recommended that the existing man power specially in the Ore Dressing Division has to be substantially enhanced to cope up with the expected quantum of work load involved in future. Working Group also recommended strengthening the Mineral Processing Laboratory at IBM, the latest instruments/equipments need to be incorporated

Indian Bureau of Mines brought out a vision document viz. "Iron and Steel-Vision 2020" during 2011 to give policy inputs on incentivisation of beneficiation and pelletisation and to prepare a suitable Central Government scheme.

Action Point 7

It was decided that Working Group Reports of IBM would be discussed in the next meeting of IBM Advisory Board.

Action Taken Report:

The Working Group Reports prepared by IBM have been discussed in the Ministry on 15.4.2010. Based on the deliberations and suggestions, these reports were modified and submitted to the Ministry on 25.8.2010 and again on 24.11.2011. The recommendations of the Working Group have been considered in the preparation of the 12th Plan for the mineral sector.

REVIEW OF SCHEME-WISE PERFORMANCE OF INDIAN BUREAU OF MINES DURING 11TH PLAN (2007-08 TO 2011-12)

During the Eleventh Plan all activities of IBM have been conducted through the following four continuing Plan Schemes.

1. Inspection of Mines for scientific and systematic mining, mineral conservation and mine environment.

Scientific & systematic development of mineral deposits, promotion of mineral conservation and ensuring protection of environment in mining area are the prime responsibility of IBM. In this direction, IBM ensures promotion of conservation, systematic and sustainable development of mineral resources and protection of mines environment through statutory enforcement as well as through promotional activities like Celebration of Mines Environment & Mineral Conservation Week and providing spot guidance to mines management.

Yearly inspection of about 2500 mines and imparting qualitative suggestions may result in systematic & scientific development of mineral deposits, conservation of minerals and protection of environment for mines as achieved in the past.

Scheme No. 2: Mineral beneficiation Studies - Utilization of Low grade and Sub-grade ores and analysis of Environmental samples.

Most of the mineral deposits found in the nature do not conform to the grade specifications required by the consuming industries and therefore needs up gradation by ore dressing process. It suggests ways and means for economic utilization of mineral resources 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 our mineral resources in judicious manner.

These activities may ensure value addition to low/sub-grade ores and optimum recovery of ores and minerals, while assisting small mine owners and conservation efforts.

Scheme No. 3 Technological Upgradation and Modernization

- (i) Updation of National Mineral Inventory and adoption of UNFC code.
- (ii) Preparation of Mineral Maps with forest overlays.
- (iii) Consultancy services on charge and promotional basis to mining industry on mining, geological and environmental aspects.
- (iv) Development of new mining methods for scientific and systematic Development of mineral resources and management of mining wastes.
- (v) Human resource and infrastructure development in IBM.

Updated National Mineral Inventory facilitates planners to formulate plans and strategies for exploration and exploitation of mineral deposits and entrepreneurs to make investment decisions. Multi-minerals maps enable to chalk out future plans for ecologically sustainable development. Consultancy/ research oriented studies on mining, geology, environment etc. benefited the mineral industry for carrying out scientific and systematic development of mineral resources including environmental management of mines.

Scheme No. 4: Collection, Processing, Dissemination of data on Mines and Minerals through various Publications.

To collect data on mines and minerals through statutory returns and other means with a view to process, analyse and disseminate the data through various statistical and technical publications. IBM has also been recognized as one of the sub-system of National Information system of science and technology (NISSAT).

Flagship publication of IBM, Indian Minerals Year Book provides a bird's eye view to all the mines and mineral sector of India. Statistical and technical publications released by IBM facilitate in disseminating data on mines and minerals. Vital statistics on mineral production, consumption, trade helps policy makers, entrepreneurs, investors to take appropriate decisions.

A new scheme namely "Computerized Online Register of Mining Tenements System" was introduced in 11th Plan.

The objective of the Scheme on "Computerized Online Register of Mining Tenements System" 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 scheme is included as Scheme No.5 and will be completed in Twelfth Plan.

IBM has achieved the physical targets under the schemes implemented. Physical Performance of IBM for the XI Five Year Plan is as per following table.

SCHEME-WISE PERFORMANCE OF INDIAN BUREAU OF MINES DURING 11TH PLAN (2007-08 TO 2011-12)

Item/Activity	2007-08		2008-09		2009-10		2010-11		2011-12		Total	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Scheme No. 1: Inspection of Mines for Scientific and Systematic mining, mineral conservation and mines environment.												
Inspection of Mines for MCDR/MPI/MSI	2500	2793	2500	2645	2500	2371	2000	2177	2500	2563	12,000	12549
Mining Geological Studies/NMI Updation	12 RMGS	12 RMGS completed	12 RMGS	12 RMGS completed	12 RMGS	12 RMGS completed	Updation of NMI (7774 Pvt.L/H)	7232	12 RMGS	12 RMGS Completed	48 RMGS	48 studies completed.
Mining Plan received/Disposal	547	575	418	415	277	306	226	184	263	223	1731 received	1703 disposed
Scheme of Mining received/Disposal	374	352	436	398	371	400	279	253	675	430	2135 received	1833 disposed
Recognition granted to prepare Mining Plans	-	87 Granted	-	52 Granted 02 Renewed	-	64 Granted 5 Renewed	-	77 Granted 17 renewed	-	46 ranted 31 renewed	-	326 Granted 55 renewed
Scheme No. 2: Mineral Beneficiation Studies – utilization of low grade and sub-grade ores and analysis of environmental samples												
Ore Dressing Investigations	70	66	70	68	70	66	60	60	70	65	340	325
Mineralogical Examinations	2300	2390	2300	2366	2300	2383	2000	2,060	2300	2408	11,200	11607
Chemical Analysis	50,000	46804	50,000	49,108	50,000	50,519	40,000	41,925	50,000	49139	2,40,000	2,37495
In-plant Studies	-	12	-	10	-	06	-	01	-	01	-	30

Item/Activity	2007-08		2008-09		2009-10		2010-11		2011-12		Total	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Scheme No. 3: Technological upgradation and Modernisation												
Technical Consultancy Assignments	5-7	8	5-7	13	5-7	10	5-7	06	5-7	6	27-35	43
Mining Research Assignments	5-7	9	07	09	08	08	06	07	5-7	8	31-35	41
Training Courses	16	16	16	16	16	15	12	12	12	12	72	71
Preparation of Mineral Maps with forest overlays	Prepared 120 Multi Mineral Maps in respect of Maharashtra (43) & Tamil Nadu (77)		Prepared 100 Multi Mineral Maps in respect of Rajasthan.		Prepared 100 Multi Mineral Maps in respect of Gujarat.		Prepared 100 Multi Mineral Maps in respect of M.P.(83), Uttarakhand (6) and U.P.(11)		Prepared 60 Multi Mineral Maps in respect of J&K, H.P., Haryana, West Bengal, N-E States, Kerala and Goa.		Prepared 480 Multi Mineral Maps with forest overlays.	
Updation of National Mineral Inventory	Updation of NMI as on 1.4.2005 completed.		Handbook on NMI as on 1.4.2005 & an ad-hoc publication NMI at a Glance (As on 1.4.2005) were prepared.		Updation of NMI as on 1.4.2010 initiated. Conference for Exploration agencies & a Workshop for Mining Geologists of IBM were organized.		Updation of NMI as on 1.4.2010 was in progress. Summary outputs generated for 18 minerals.		Summary output of 52minerals generated.		Updation of NMI as on 1.4.2005 completed. Handbook on NMI as on 1.4.2005 & an ad-hoc publication NMI at a Glance (As on 1.4.2005) were prepared. Updation of NMI as on 1.4.2010 has been completed. Summary outputs generated for 70 Minerals.	

Item/Activity	2007-08		2008-09		2009-10		2010-11		2011-12		Total	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Scheme No. 4: Collection, processing, dissemination of data on mines and minerals through various publications												
Publications released	16 publications released		23 publications released.		18 publications released.		24 publications released.		24 publications released.		105 Publications released	
Advisory Role	537 Ministry references & 172 Parliament Questions dealt.		561 Ministry references & 115 Parliament Questions dealt		486 Ministry references & 133 Parliament Questions dealt		478 Ministry references & 190 Parliament Questions dealt		391 Ministry references & 143 Parliament Questions dealt		2453 Ministry references & 756 Parliament Questions dealt	
Scheme No. 5: Computerized Online Register of Mining Tenements System												
	Project Proposal was being re-casted as suggested by the Ministry.		Project Proposal was approved by the Standing Finance Committee (SFC) in the meeting held on 19th February 2009.		The GIS Component of the project was developed at ISRO, Nagpur. The pilot project was hosted on the web.		The process for hiring of consultant for preparation of DPR has been finalized by NIC.		M/s. Earnest & Young has been appointed as consultant for preparation of DPR.		Formalities for submission of DPR by Consultant are in progress.	

Statement showing Financial Performance by IBM in the 11th Plan

(Rupees in crores)

Name of the Schemes/project/Programme	11th Plan (2007-12) Approved Outlay	2007-2008			2008-2009			2009-2010			2010-2011			2011-2012		
		Approved Outlay		Actual Exp.	Approved Outlay		Actual Exp.	Approved Outlay		Actual Exp.	Approved Outlay		Actual Exp.	Approved Outlay		Actual Exp.
		BE	FE		BE	FE		BE	FE		BE	FE		BE	FE	
1		2	3	4	5	6	7	8	10	11	12	13	14	15	16	17
Scheme No.1. Inspection of Mines for Scientific & Systematic mining, Mineral Conservation and Mine Environment	26.35	6.00	7.60	7.26	6.23	8.71	8.59	6.74	10.96	10.74	7.90	9.22	9.00	6.94	8.57	8.13
Scheme No.2. Mineral Beneficiation studies - Utilization of low grade & sub-grade ores and analysis of environmental samples	24.70	4.68	4.76	4.68	5.30	6.25	5.97	5.17	6.54	6.37	6.20	6.38	6.31	5.09	4.96	4.90
Scheme No.3. Technical upgradation & Modernization.	18.30	4.97	2.98	2.91	3.12	4.56	4.43	3.17	6.28	6.18	4.10	3.79	3.61	3.48	3.28	3.26
Scheme No.4. Collection, Processing, Dissemination of Data on Mines & Minerals through various publications.	7.00	2.28	1.30	1.29	1.34	1.84	1.81	1.56	2.44	2.41	2.24	1.92	1.84	1.90	1.89	1.86
Scheme No.5. Management of Solid Waste from Mining in India.	0.75	0.00	0.00	0.00	0.60	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scheme No.6. Computerisation online Register on Mining Tenement System.	2.25	0.00	0.00	0.00	0.50	0.00	0.00	0.30	0.30	0.30	4.75	3.72	3.62	1.50	1.06	0.97
Tribal Area Sub-Plan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00
Capital Expenditure (Works Outlay)	--	0.37	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Capital Outlay (NER)	2.61	1.21	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.55	0.00	0.00
Lump-sum provision for NER	3.04	0.49	0.00	0.00	0.50	0.00		1.90	0.00	0.00	1.55	0.00	0.00	1.65	0.00	0.00
Token Provision for New Schemes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL (IBM)	85.00	20.00	16.64	16.14	19.00	21.36	20.80	19.00	26.52	26.00	28.00	25.03	24.38	22.00	19.76	19.12
Construction (MOUD Budget)	5.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.01	0.01	1.00	1.00	--

**SCHEME-WISE TARGETS OF INDIAN BUREAU OF MINES
DURING 12TH PLAN (2012-13 TO 2016-17)**

During the Twelfth Plan all activities of IBM will be conducted through the following five schemes continuing from XI Plan.

- 1. Inspection of Mines for scientific and systematic mining, mineral conservation and mine environment.**
- 2. Mineral Beneficiation Studies, utilization of low grade and sub grade ores and analysis of environmental samples.**
- 3. Technical Up gradation and Modernization.**
- 4. Collection, processing, dissemination of data of mines and minerals through Various Publications.**
- 5. Computerized Online Register of Mining Tenements System.**

Scheme wise objectives and brief activities have already been given in Agenda Item No. 17.02. In XII Five year Plan apart from aforesaid five Schemes, the following new Scheme is being implemented.

Scheme No. 6: Capacity Building of State Governments - Development & implementation of ore accounting software by NIC.

The report of the Committee for Review & Restructuring of the functions and Role of IBM has recommended that the IBM would evolve as a consultant for creation and improvement of State level regulatory mechanisms and to assure suitable support.

Objective & Activities: In the developmental role, IBM would assist State Governments to ensure adherence to standards and parameters by leveraging technology to ensure scientific mining. IBM also requires to help in devising and working mechanism for consultations, information dissemination and disclosure to local communities and to enable formulation of free prior informed consent (FPIC) strategies.

Further, the amended Rule 45 of the MCDR, 1988 has been notified on 9.2.11 with a view to allow end-to-end accounting of the minerals. Rule 45 largely covered the area of accounting of mineral production and movement of minerals legally mined. With the implementation of the provisions of Rule 45, increasing the efficiency in accounting minerals, State Government may find it easy to isolate and monitor areas of illegal mining effectively. This requires implementation of Rule 45 by developing uniform ore accounting software with interface to Railways, Ports and Customs. For designing, developing and for implementation of such software a new scheme is proposed to be implemented through IBM. To take up the new Scheme, a token provision of Rs. 50.00 Lakh has been provided by the Planning Commission for the year 2012-13. The Planning Commission further advised to prepare a DPR for taking up the Scheme. For preparation of DPR, IBM is interacting with National Institute of Smart Governance (NISG).

Scheme-wise targets for XII Five Year Plan and Annual Plan 2012-13 and achievements upto June, 2012 are given in the following table.

SCHEME-WISE TARGETS OF INDIAN BUREAU OF MINES DURING 12TH PLAN (2012-13 TO 2016-17)

Item/Activity	2012-13		2013-14	2014-15	2015-16	2016-17	Total
	Target	Achievement Upto June, 2012	Target	Target	Target	Target	Target
Scheme No. 1: Inspection of Mines for Scientific and Systematic mining, mineral conservation and mines environment.							
Inspection of Mines for MCDR/MPI/MSI	2500	450	2500	2500	2500	2500	12,000
Mining Geological Studies/NMI Updation	12 RMGS studies	12 RMGS are in progress	12 RMGS studies	12 RMGS studies	Updation of NMI as on 1.4.2015	12 RMGS studies	48 RMGS + Updation of NMI as on 1.4.2015
Mining Plan received/Disposal	*142+61	69	As & When received	As & When received	As & When received	As & When received	As & When received
Scheme of Mining received/Disposal	*360+202	133	-Do-	-Do-	-Do-	-Do-	-Do-
Recognition granted to prepare Mining Plans	As & When received	11	-Do-	-Do-	-Do-	-Do-	-Do-
Scheme No. 2: Mineral Beneficiation Studies – utilization of low grade and sub-grade ores and analysis of environmental samples							
Ore Dressing Investigations	60	13	60	60	60	60	300
Mineralogical Examinations	2300	657	2300	2300	2300	2300	11,500
Chemical Analysis	40,000	8997	40,000	40,000	40,000	40,000	2,00,000
In-plant Studies	-	-	-	-	-	-	-

* Under processing at the beginning of the year.

Item/Activity	2012-13		2013-14	2014-15	2015-16	2016-17	Total
	Target	Achievement Upto June, 2012	Target	Target	Target	Target	Target
Scheme No. 3: Technological upgradation and Modernisation							
Technical Consultancy Assignments	5-7	3 in progress	5-7	5-7	5-7	5-7	25-35
Mining Research Assignments	3-4	1 in progress	3-4	3-4	3-4	3-4	15-20
Training Courses	16	4 conducted	16	16	16	16	80
Updation of Mineral Maps with forest overlays	100 maps for Karnataka & Odisha	In progress	100 maps	100 maps	100 maps	100 maps	500 maps
Updation of National Mineral Inventory	Completion of updation of NMI as on 1.4.2010	In progress	Handbook on NMI as on 1.4.2010	To take up updation as on 1.4.2015	Updation as on 1.4.2015 will be continued	Updation as on 1.4.2015 will be continued	Updation as on 1.4.2015 will be continued
Scheme No. 4: Collection, processing, dissemination of data on mines and minerals through various publications							
Publications released	18-24 Publications	5 publications	18-24 Publications	18-24 Publications	18-24 Publications	18-24 Publications	90-120 Publications
Advisory Role	As & When received	49 PQ & 92 Ministry Ref.	As & When received	As & When received	As & When received	As & When received	As & When received

Item/Activity	2012-13		2013-14	2014-15	2015-16	2016-17	Total
	Target	Achievement Upto June, 2012	Target	Target	Target	Target	Target
Scheme No. 5: Computerized Online Register of Mining Tenements System							
	To publish Request for Proposal (RFP) for identification of software Development Agency & initiation of work by identified agency	Action for preparation of Request for Proposal (RFP) for identification of software Development Agency is in progress	The Project will be completed in XII Plan.				
Scheme No. 6: Capacity Building of State Governments - Development & implementation of ore accounting software							
	Action for preparation of DPR	Interaction with National Institute of Smart Governance, Hyderabad is in progress.	The Project will be completed in XII Plan.				

Sustainable Development Framework (SDF) & Way forward

As per section 46 of the Mines and Minerals (Development and Regulation) Bill, 2011”, “the Central Government in order to facilitate the scientific development and exploration of mineral resources and to ensure the protection of the environment and prevention and control of pollution from prospecting and mining related operations, shall cause to be developed a National Sustainable Development Framework in consultation with the State Governments”.

Accordingly Ministry of Mines commissioned M/s ERM India Pvt. Ltd to develop a Sustainable Development Framework for the Mining Sector (Non Coal, Non Fuel) in India. The development of the SDF has also followed through on the policy recommendations of the High Level Committee. A participatory approach involving consultation and discussions with different stakeholder groups, support of the concerned line departments at the state and central level, feedback and representation from the industry and the civil society groups were the key highlights of the approach adopted for the study. The SDF is informed by ground realities, conflicts, issues, expectations and perceptions with regard to the mining and the different activities associated with it. The details of Key Principles of the SDF are enumerated at **Annexure III**.

Implementing the SDF

The SDF needs to be driven through an institutional framework that encourages voluntary adoption, and performance beyond just legal compliance- but ensures there is monitoring of this adoption, and tracking of the SDF impacts. The SDF as an institutional system is understood to be fully integrated, though functioning at different levels through an arrangement of representative cells. Specific functions are linked to different levels, and connect with existing entities, as described below. The four levels are:

- **National level** within the Ministry of Mines; with the secretariat at the Indian Bureau of Mines, where majority of the centralized functions are undertaken and housed;
- **State level** within the state Departments of Mines;
- At the **mining region level** where the SDF has proposed that strategic decisions be taken for mining, environmental and social safeguards and infrastructure development; and

- At the ***lease level***, where each mine has to have an organisational structure in place to manage sustainable development performance.

Way forward

The SDF document has been finalized. As part of roll-out of SDF the detailing of measureable indicators of the system along with practicality of the implementation agencies/stakeholders is proposed to be tested in pilot projects to be undertaken in three mineral rich States before pan-India roll-out.

Agenda Item No.17.04.2**Implementation of Mining Tenement System (MTS)**

The MTS has been envisaged by the Government to automate the various processes associated with the mineral concession regime. This would not only give an impetus to the decision making process but is also expected to meet the ends of transparency and openness. It is envisaged that MTS will not only enable online filing of applications but it will also be possible to identify online the areas for various types of mineral concessions. This would involve integration of web based technology services with Geographical Information System (GIS), so that information could be shown spatially in the form of maps. IBM has been nominated by the Ministry as the Nodal Implementing Agency for the project. Information to be displayed under MTS is placed at **Annexure IV**.

The project for preparation of DPR has been formulated and the consultant for DPR preparation was appointed in May 2011. The inception report covering As-is-study of Ministry and IBM is complete and approved by the Ministry.

The MTS will be implemented in a phase wise manner. Initially, it will be implemented in 12 mineral rich States viz. Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Maharashtra, Madhya Pradesh, Orissa, Jharkhand, Karnataka, Kerala, Rajasthan and Tamil Nadu.

The Project will be implemented in three phases. In phase I, the registry component of Central Database will be developed covering aspect of registration, returns, revision, inspection, mining plan approval and mine closure plan approval. The state specific registry components would be developed in phase II and phase III will be devoted for GIS component. Some parts of GIS components can be taken up simultaneously along with development of Phase I and Phase II. Draft MOU has been prepared by M/s E&Y and is under examination.

Umbrella software will be developed for all States. The project will be implemented by adopting the cafeteria approach wherein the system is developed for pilot locations and latter other States are free to choose the software package as per their requirements. As per the individual need and strategy of each State, the services can be opted and payment can be done for the limited package opted by the State. The project DPR is ready and RFP is under finalization for selection of vendor.

**Implementation of amended Rule 45 of
Mineral Conservation and Development Rules 1988**

To handle the problems of illegal mining the Central Government has taken steps to keep accounts of mineral flow from mine to end. Therefore, the Government of India has notified amendment in Rule 45 of Mineral Conservation and Development Rules, 1988, vide G.S. R. No. 75(E) published in Part-II, Section-3, Sub-Section (i) of the Gazette of India Extraordinary dated, 9th February, 2011, which stipulates mandatory registration of miners, stockists, traders, exporters, and end-users of minerals, and stringent reporting norms for ensuring end-to-end accounting of the mineral produced. In this system it is mandatory for the miners, traders, exporters, and end-users of the minerals to send a copy of the reports to State Governments also. The State Governments have also been advised to ensure that any automation in the reporting system developed at the State levels should be compliant with the amended Rule 45 of the MCDR. Accordingly, IBM in association with NIC has developed online registration forms and statutory monthly and annual returns forms. The first phase of online system of submission of statutory returns was inaugurated by Hon'ble Minister of State for Mines (IC) Shri Dinsha Patel on 29.03.2012 at New Delhi.

The Central Government has developed on-line system for registration and on-line reporting systems to facilitate the submission of monthly returns for iron ore. The on-line registration system has already commenced in the IBM and so far up to June, 2012, 5062 lease holders, 2673 traders, 544 exporters, 1125 stockiest and 1910 end-users have registered their details.

Broadly the reporting system is divided into two parts. Part-I covers the general information in addition to the employment details. Part-II of the monthly reporting system deals with the grade wise production, dispatches, stock and justification for increase/decrease of production and sale price of minerals. The Part-II of reporting system requires the registration number of the consignee and purpose of sale whether for domestic consumption or export and in case of domestic consumption whether it is made for captive consumption / sale / transfer.

In order to facilitate tracking of mineral from mine to end-use, the reporting system requires indicating the registration number of supplier from whom the mineral is procured. The reporting system will have details of approved mining plan production proposals to compare the same with the actual production from the mine. All the State Government will be able to access the system to check the data reported in the returns and can initiate action in case of wrong reporting of data, evasion of royalty, etc.

The amended Rule 45 of MCDR, 1988 specifies the penal action against defaulting mine owners and empowers the Central Government to order for suspension of all mining operations and may revoke the order of suspension after ensuring proper compliance, take action to initiate prosecution and recommend for termination of mining lease. The Rule further specifies that in case of defaulters engaged in trading or storage or end use or export of minerals, the State Government is empowered to order for suspension of trading license, all transport permits issued, storage license for stocking minerals and permits of end use industry, etc.

In future, the system will be linked to Railways and Ports Authorities to check the correctness of the reporting made under the Rule for which a separate project/scheme has been proposed by IBM with National Institute of Smart Governance (NISG), Hyderabad.

Examination for Recognized Qualified Person (RQP) for preparation of Mining Plans/Schemes.

As per section 131 of the Mines and Minerals (Development and Regulation) Bill, 2011", the Central Government may, by notification, make rules for empanelment and accreditation of qualified persons for preparation of mining plan.

The existing Rule 22B of Mineral Concession Rules (MCR) 1960 indicates that no person shall be recognized for the purpose of preparations of mining plan unless he holds-

- (i) A degree in mining engineering or post graduate degree in Geology or equivalent and
- (ii) Professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree.

Based on the above criteria Indian Bureau of Mines is granting recognition. The number of valid RQPs at the end of June, 2012 was 1082. At the time of introduction of mining plan in 1987, it was decided that the persons having prescribed qualifications and experience could be considered as competent to prepare mining plans. It was also visualized that in course of time the persons recognized to prepare mining plan would improve their ability and competency and therefore, the future draft mining plans submitted by them to the competent authority would be of professional quality.

However, it is observed that there has been no improvement in the quality and lot of deficiencies continue to be found in the RQP prepared mining plan. It is, therefore, felt that there is a need to review the selection procedure of applicants for RQPs. Therefore, IBM has proposed to introduce examination system for RQP's. The suggestion on the screening of RQP may be discussed.

This has been also included as one of the targeted item in the Result Framework Document (RFD) for 2012-13 of Ministry of Mines. In this regard IBM is in the process of preparations of suitable amendment in the Rule 22B and 22C of MCR 1960 to provide for an examination for RQP's as a method of selection.

Agenda Item No.17.04.5**Guidelines for Preparation of Mining Plan**

The existing norms and guidelines for preparation of Mining Plans in practice allow scope for discretion to the approving authority. Keeping in view of recent developments in mining industry and amendments in the related Acts and Rules, guidelines should be more objective and should cover the latest techno-economic aspects of various components of mining parameters and should ensure that only the best available technology is put into use in order to achieve optimum exploitation of minerals in total conformity with standard scientific & systematic methods, criteria for conservation of minerals and sustainable development framework.

The IBM Review and Restructuring Committee have also recommended that IBM should revise the format of Mining Plan and Scheme of Mining keeping in view the new provisions of Mines & Minerals (Development & Regulation) Bill 2011 and the Framework of Sustainable Development. Accordingly IBM has prepared draft guidelines/procedures for preparations of mining plans. The proposed improvements in the procedure will be discussed.

Agenda Item No.17.04.06**Mineral Concession Approval System (MCAS)**

IBM module of MCAS developed by NIC is related to data on RP/PL/ML areas as a part of the extension of existing mineral concession approval system, which is in operation at Ministry of Mines. This module covers data pertaining to letter of intent (LOI) MP/SOM, grant of concessions and renewals by State Govt., filing returns, etc. This online mineral concession system is mainly developed for monitoring the status of Mineral Concession granted/renewed by the Ministry of Mines. This system has already gone online from 2010 and can be accessed at www.mcas.nic.in.

This Module is an online database which has to be logged in with appropriate user name & pass word and data has to be entered into certain sub modules. The main IBM Module comprises:

- i) Add Concession (LOI)
- ii) Update concession (extension of LOI, etc,)
- iii) MP/SOM/PMCP/FMCP
- iv) Grant of concession/renewals (RP/PL/ML)
- v) Update grant/renewal
- vi) Commencement of mining operation
- vii) Annual returns (RP & PL)
- viii) Current status of the Mineral Concession granted/renewed

IBM report Module was also developed to see the various outputs generated by the data entry made under IBM Module under this Module:

- i) MP/SOM Status
- ii) PL/RP status
- iii) LOI status reports
- iv) Status of a concession/mine

IBM has already directed all its Regional Offices that “after disposal of mining plans/ modified mining plans, the necessary entries should invariably be made in the Mineral Concession Approval System (MCAS) database before it is issued to the respective applicant”. Henceforth, all mining plan details including approvals, modifications, rejections etc will be available in the portal.

RE-CONSTITUTION OF INDIAN BUREAU OF MINES ADVISORY BOARD**MINISTRY OF MINES**New Delhi, the 3rd July, 2012**RESOLUTION**

No.35/1/2011-M.III. -Whereas with a view to strengthening the links between Indian Bureau of Mines and the various organizations interested in or connected with the functions of the Indian Bureau of Mines and to enable the Government to have objective appraisal of the effectiveness of the working of the Indian Bureau of Mines and of the ways and means by which its utility and effectiveness can be continually enhanced, the Indian Bureau of Mines Review Committee, in its Report submitted in December, 1979, had recommended the formation of an Advisory Board for Indian Bureau of Mines. Accordingly, the Central Government vide its Resolution No. 23012/99/80-M.VI dated the 12th January, 1981 constituted an Advisory Board for Indian Bureau of Mines.

And whereas vide Resolution No. F. 12014/10/85-M.VI dated 28th January, 1986, No. F.12014/2/88-M.VI dated the 8th April, 1988, No. F. 12014/6/90-M.VI dated the 23rd May, 1990, No. 35/1/95-M.III dated the 20th July, 1995 and the Office Memorandum No. 35/1/96-M.III dated the 23rd May, 1997, Resolution No. 35/2/99-M.III dated 3rd November, 1999 and Resolution No. 35/1/2002-M.III dated 31st May 2002 and No.35/2/2007-M.III dated 14th November, 2008 the said Advisory Board has been reconstituted from time to time.

Now, therefore, in suppression of all earlier resolutions, the Advisory Board of Indian Bureau of Mines is reconstituted with the following composition:-

COMPOSITION**CHAIRMAN**

Secretary, Ministry of Mines

MEMBERS

1. Special Secretary/Additional Secretary, Ministry of Mines
2. Additional/Joint Secretary & Financial Advisor, Ministry of Mines.
3. Joint Secretary (In charge, IBM), Ministry of Mines
4. Director/Deputy Secretary (In charge of IBM), Ministry of Mines
5. Controller General, Indian Bureau of Mines, Nagpur.
6. Director General, Geological Survey of India, Kolkata
7. Director General, Directorate of Mines Safety, Dhanbad
8. Adviser (I & M) Planning Commission, New Delhi.
9. A Representative of Ministry of Steel, New Delhi.
10. A Representative of Department of Science & Technology, New Delhi.
11. A Representative of Ministry of Environment & Forests, New Delhi.
12. President/Secretary General, Federation of Indian Mineral Industries, New Delhi.
13. A Representative of Government of Odisha.
14. A Representative of Government of Chhattisgarh.
15. A Representative of Government of Gujarat
16. A Representative of Government of Andhra Pradesh
17. A Representative of Government of Rajasthan
18. A Representative of Government of Karnataka

19. A Representative of Government of Goa.
20. Chairman-cum-Managing Director, Hindustan Copper Limited, Kolkata.
21. Chairman-cum-Managing Director, National Aluminium Company Ltd., Bhubaneswar.
22. Chairman-cum-Managing Director, MOIL Ltd. Nagpur
23. Director, National Metallurgical Laboratory, Jamshedpur.
24. Director, Indian School of Mines, Dhanbad.
25. Professor, Department of Mining, VNIT, Nagpur.
26. Any other member as special invitee.

MEMBER SECRETARY

Technical Secretary, Indian Bureau of Mines, Nagpur

2. The functions of its Board will be advisory in character. It will advise both the Indian Bureau of Mines and the Government. The Board will be at liberty to correspond directly with Government. The Indian Bureau of Mines will provide the Secretariat of the Board. The Board should devise its own working rules and procedures but the Government would expect it to meet at least twice a year. The functions of the Board will be as follows: -

FUNCTIONS

1. To review and advise on the Annual and Five year plan and proposals of Indian Bureau of Mines
2. To review and advise on the programme of work during the coming year.
3. To review and advise on the implementation of restructuring programme of IBM.
4. To appraise from time to time the work, in different areas, done by the Indian Bureau of Mines.
5. To advise on the matter of SDF and its implementation.
6. To advise on the implementation of Mining Tenement System (MTS).
7. To advise on the implementation of Rule 45 of Mineral Conservation and Development Rules, 1988.
8. To advise on systems of Management Information and Management Accounting
9. To advise on ways and means of making Indian Bureau of Mines functioning more effective.

TENURE

The Advisory Board will generally function for two years from the date of its constitution unless the term is extended by the Government.

ORDER

Ordered that this Resolution be communicated to all the State Governments and Central Ministries of the Government of India, Prime Minister's Office, Cabinet Secretariat, Ministry of Parliamentary Affairs, Planning Commission, Comptroller and Auditor General of India, Indian Bureau of Mines, Geological Survey of India and Department of Atomic Energy.

(ROKHUM LALREMRUATA)

Director

THE SALIENT FEATURES OF THE REPORT OF THE COMMITTEE FOR REVIEW AND RESTRUCTURING OF THE FUNCTIONS AND ROLE OF INDIAN BUREAU OF MINES

- Three tiers of the regulation system for the mining industry are proposed. The State Governments would come at first tier of regulation, wherein they would ensure the implementation of the systems and processes. IBM would evolve as a National Technical Regulator, which would primarily act as the second tier of regulatory system operating at country level designing systems, processes and guidelines for regulation of the mining sector in onshore areas. Till suitable capacities develop at the State Government level, IBM would continue in regulating the sector. A third tier would be enabled through an independent mechanism of systems and process audit through Stakeholder Forums.
- The IBM would evolve as a consultant for creation and improvement of State level regulatory mechanisms and to assure suitable support structures to the State Governments in the initial stages to a dynamic process of training, skill development and infrastructure strengthening with appropriate training modules and centrally sponsored schemes. IBM would also evolve criteria for assessment of the regulatory capabilities of the State Governments through standard assessment tools.
- In the developmental role IBM would require to assist State Governments to ensure adherence to standards and parameters by leveraging technology to ensure scientific mining. IBM also requires to help in devising and working mechanism for consultations, information dissemination and disclosure to local communities and to enable formulation of free prior informed consent (FPIC) strategies.
- Mineral Information System to start from Regional offices. With a view to strengthen the systems for data collection and making the data available online, IBM would develop IT based systems enabling the mining industry to report and access information online. The existing Mineral Information System (MIS) would be strengthened for wider coverage of data and dissemination of the same.
- Regional offices of IBM to be restructured to function as pivotal for all regulatory activities. Re-defining the territorial jurisdictions of Regional Offices as per the State boundaries to have more interaction and synergy with the State Government agencies. To create “East Zone” with headquarters at Kolkata, to open Regional offices at Gandhinagar and Raipur, up-gradation of Guwahati Regional office into full fledged Regional office and shifting of North Zonal Office from Ajmer to Jaipur.
- Leveraging of technology for mineral regulation activities such as use of GPS/DGPS, GIS, Satellite imageries etc. Clear defined systems to increase objectivity of the tasks, ensuring internal audit mechanism for the Regional offices and mechanism to ensure timely and accurate submission of mineral data is proposed.
- At each Regional Office of IBM a “Regional Co-ordination Committee” comprising Members from the Directorate of Mining & Geology, State Environment & Forest Department, State Pollution Control Boards, Revenue

Department, industry etc would be formed for effective regulation and development of the sector.

- In order to enhance the quality, multidisciplinary inspections of mechanized and underground mines would be carried out by a team of Mining Engineers, Geologists and OD officers. The thrust of the inspections should be to ascertain the efforts put in by a miner to adopt processes for mechanization, automation and computerization of mining operations.
- To improve the quality of mining plan, the grant of recognitions to qualified persons (RQPs) to prepare mining plans would be given by an independent agency introducing 'accreditation system' .
- The outline and guidelines of mining plan would be more objective to cover the latest techno-economic parameters of various components of mining parameters keeping in view the best available technology so as to achieve the optimum exploitations of minerals in scientific way, conservation of minerals and keeping in view the sustainable development framework. IBM to design the standard guidelines/ procedures for various components of mining plan.
- To display the non-commercial information of Mining Plan such as CSR activities, EIA/EMP, SDF, mine closure etc in the public domain for greater transparency amongst the general public.
- IBM to develop its capacity to handle the regulation of the offshore mining activities and for this purpose would set up an Offshore Mineral Development & Regulation Cell in the Headquarters for grant of mineral concessions in offshore areas and open two Regional offices at Kochi for west coast and at Visakhapatnam for east coast to perform various regulatory functions in offshore areas minerals.
- The Zonal offices to work as (i) Technical Auditor to carry out internal technical auditing to ensure quality of regulatory activities performed by the Regional Offices (ii) To co-ordinate with State Government authorities for prevention of illegal mining activities and setting up of Quick Response Teams (QRTs) for the purpose of immediate spot visits in the event of specific information (iii) To act as nodal office to deal with activities related to the disaster management (iv) To suggest measures for adopting mechanization, automation and computerization in mining activities in the mines in the regions and to suggest potential areas where value addition of run of mine ore through mineral beneficiation is possible, or identifying areas and methods for cluster mining.
- In order to assist to the proposed Regulatory Authority, an 'Enforcement Wing' will be established in IBM. The overall mission of the Enforcement wing will be to provide technical assistance to Regulatory Authority in investigations and prosecution and to maintain data on illegal mining activities.
- To prepare a vision document for mineral processing keeping the objective and targets for 2020. To segregate the various functions in the field of mineral processing into regulatory, regional, mine and commercial levels. IBM to restrict its activities only up to first two levels so as to give space for private sector.
- IBM to have basic wherewithal to cross-check the process sheets, but IBM should not develop business-level flow-sheets on its own. Development of business/mine level flow sheets should be thrown open to private sector.
- The IBM should restrict for development of flow sheets only for such minerals which are strategic in nature and for such minerals on which the country is

heavily depends on imports. In addition to beneficiation, IBM should also take up R&D work related to the recovery of minor metals, technology metals, energy critical metals etc.

- Creation of matrix of institutions and academic bodies engaged in the mineral processing activities in India and to take up the industry oriented R&D work in the field of mineral processing for utilization of low grade ore so as to climb technology ladder.
- Statutory provisions to be made to carry out Amenability test in respect of exploration samples of drill cores for Prospecting and Large Area Prospecting Licence. IBM to encourage prospective proponent and mining operators to undertake (i) Laboratory Scale ore dressing investigations up to threshold value of minerals in mining leases and (ii) Pilot plant investigations to work out the feasibility of particular plant through consultations and counseling.
- IBM to give wider publicity of ore dressing investigations carried out by it through portal, publicity brochures, R&D Meets, seminar/symposia etc media. For wider publicity and propaganda for the R&D work done more R&D meets need to be organized on specific themes to serve as a platform. IBM to act as a nodal agency for dissemination of information on R&D work carried out by different R&D institution engaged in the field of mineral processing.
- IBM to develop expertise in the area of energy auditing of processing plants. IBM should also carry out energy auditing of the plants so as to ensure that the processing of minerals is cost effective.
- IBM to expand their expertise from mineral processing to hydrometallurgical processing (including bio-leaching, solvent extraction, Ion-exchange besides the conventional leaching etc.) in order to utilize the mineral resources which are not amenable to normal mineral processing routes. IBM should also take up studies on recovery from scrap and waste like electronic waste, base metals, electronic metals etc. For this purpose necessary facilities and logistics may be created in IBM.
- In order to have state-of-the-art Mineral Processing Laboratory, IBM needs to induct the latest instrument/equipment in its fleet to develop its own capacity.
- IBM should develop full fledged capacity for excellence in analysis of mine environmental samples. It is recommended for setting up of Environmental Laboratory at each Regional office and also strengthening of existing environmental laboratories with latest equipments and adequate technical personnel.
- The area falling under the proposed eastern zone would need substantial regulation and regional level studies towards beneficiation of Iron ore, Manganese ore, Bauxite, Chromite, Graphite and Limestone, Clay etc. minerals. Therefore, the existing Clay Laboratory at Kolkata needs to be strengthened and converted into Regional Ore Dressing Laboratory.
- A National level “Mineral Processing Governing Council” headed by the Secretary (Mines) and Director (Ore Dressing) as Member Convener and involving various stake holders may be constituted. This council would explain the progress achieved and make plans for the next year.
- To capture the full potential of ‘Information Technology’ by developing interactive web-enabled portal having multiple uses such as online submission of returns and notices, execution and maintenance of Online Register of Mining Tenement System, Processing of Satellite imageries etc and creation of

dedicated 'Information Technology Cell' for the purpose. Apart from handling of IT projects, the IT Cell should also collaborate with academic institutes/research institutes/IT companies to develop new IT based methods of mineral administration. To ensure universal accessibility of databases and better co-relational analysis, all the existing databases should be inter-linked, failing which a new set of data base should be created.

- To develop strong Mineral Intelligence System in IBM so as to formulate the short and long term national strategies to ensure the security of raw materials for domestic industries. For this purpose the Mineral Economics Division to be re-organized into 6 branches and Mining & Mineral Statistics Division into 4 branches. To ensure effective data collection through statutory returns, non-statutory returns and independent surveys. Furnishing of information by mineral consuming industries should be made statutory.
- The frequency of updation of mineral inventory to be condensed. IBM to equip with necessary logistics in the form of structural changes, hardware and software for handling huge inventory database and for online and continuous updation of mineral inventory. Once the online collection of data is initiated, the updation of National Mineral Inventory should be continuous process.
- The training curriculum of IBM should have separate module for State DGM's, mineral industry, RQPs and IBM personnel. It is imperative to develop a dynamic training curriculum for IBM, as well as meet the emerging needs of the mineral sector. Strengthening of training infrastructure of IBM so as to cater the emerging needs. IBM should also organize training programmes/workshops for the local community representatives in various aspects of Sustainable Development Framework including on free, prior and informed consents (FPIC).
- A separate modern building in the premises of H.Q. building may be constructed exclusively for training purpose. A portion of the building may be planned to have a "Mining Museum" which can be used for training purpose.
- To have wider reach to provide training to all targeted stake holders viz. mineral industry, state Governments, RQP's, local representatives and IBM's own employee, through entire length and breadth of the country, it is necessary to create regional training facilities at various places in the country. Therefore, Regional Training Centres at Hyderabad and New Delhi/NCR should be set up.
- Techno-economic valuation in mining assumes importance and need to be reviewed at short intervals in view of rapid changes in associated industry clusters. Industry would still need independent technical advice of the nature as rendered by Technical Consultancy Cell. Therefore, continuation of technical services by the IBM and its strengthening is recommended.
- The main thrust of mining research by the IBM should be on research oriented towards improvement of recoveries and efficiencies in operations and finding solutions for special mining problems which have a bearing on conservation, systematic development of minerals and environmental problems in mining areas. IBM to play greater role for Mining Research Cell in the area of mine environment. Modernization of equipment of hardware and of software in the TMP Division is recommended.
- Mining Research Cell should also look into the capacity development for SDF implementations by undertaking studies in the areas of infrastructure related issues, HRD issues regarding requirement of skilled manpower for the mineral

industry, quality of engineering education, reclamation and rehabilitation of mined out areas, rehabilitation and resettlement of projects affected persons, community development, public consultations, CSR activities, socio-economic impacts etc.

- The Publication Cell should make attempts to receive feedback from stakeholders regarding contents and quality of publications and to improve its publications. The publications should not be restricted to print version but should also be brought out in audio and video versions as well.
- IBM to institutionalize National Awards in various fields for the mining industry on similar lines of “National Geo-Science Award” (formerly National Mineral Award), “National Mines Safety Awards”.
- Creation of Legal infrastructure in IBM in order to have quality legal assistance and logical end to ensure optimum mining in a sustainable manner by creating ‘Legal Cell’.
- A “SDF Cell” comprising of persons of the disciplines of mining environment and socio-economic may be formed at Headquarters. The SDF Cell would be responsible to monitor the various aspects of the SDF in the mining sector and would also extend assistance to the Training Centre in order to design training modules on SDF. The SDF Cell would undertake the need based studies in various mining clusters of the country and would also be posted at regional offices covering the mineral rich States.
- IBM to upgrade its existing Liaison office in Delhi to ‘Director’ level office and includes with adequate number of technical and administrative officers and Staff to enable him to discharge the liaison and interaction functions. The technical officers and staff should be from all major disciplines of IBM having relevance to the work programme at Delhi.
- To have frequent and regular collaboration with international counterparts so as to introduce latest technology in Indian mining sector and improved Mineral Information System
- Adequate assessment of requirement of human resources and deployment of the same with enhanced growth prospects.
 - To structure a pyramid for the organization. All Group ‘A’ entry should have 50% direct and 50% DPC ratio and recruitment rules should need to modify to incorporate 100% DPC in senior Group ‘A’ posts to address the concern of stagnation.
 - Having considered the vision and functions to be performed by IBM, strengthening of IBM by additional deployment of 933 posts in various cadres.
 - The Controller General, IBM should be from academic background of Mining Engineering discipline who should be able to understand the ambiguity of the techno-legal issues of the mineral industry and therefore, IBM should be headed only by Mining Engineer.
 - The posts of Controller of Mines, Chief Ore Dressing Officer, Chief Mining Geologist and Chief Mineral Economist, should be upgraded and granted Grade Pay of Rs. 10,000/- ; The posts of Chief Controller of Mines and Director (Ore Dressing) should be upgraded and granted Grade pay of Rs. 12,000/-; The post of Controller General, IBM should be upgraded from preset level of HAG scale to Apex scale.

- A Recruitment Calendar should be prepared on an annual basis and it should be monitored for faster and regular recruitment. Officers of Group 'A' & 'B' in respects of Geology discipline of IBM should be recruited through annual 'Geologists Examination' conducted by UPSC. Possibility of conducting similar examinations for recruitment of Group 'A' and 'B' officers for other disciplines of IBM may also be explored.
- The induction training of at least 6 months duration with field exposure should be made compulsory to all Group 'A' new entrants so has to have them adequate knowledge and skill of the functions to be performed. Similarly periodic in service refresher training should also be arranged for all the officers. IBM may tie up and ink MoUs with academic institutions for imparting tailor made induction and in service training to IBM employees.

Key Principles of the SDF

The SDF framework incorporates not only regulatory requirements, but goes beyond that and recommends practices and best in class aspects to address the challenges of sustainable development more fully. It provides a path towards achieving sustainable development aided by guidance steps, measurable outcomes and reporting and assurance.

Key Principles of the SDF

The following seven principles form the core of the Sustainable Development Framework:

(i) Incorporating Environmental and Social Sensitivities in decisions on leases: This principle integrates sustainable development concepts at the earliest phase of the mining life cycle. The underlying philosophy of the principle is to categorise mineral bearing areas based on an environmental and social analysis taking a risk based approach. At the bidding stage the categorisation of lease areas into High and Low risk will allow the investors to take business decision with the knowledge that the cost and uncertainties of getting approvals as well as operations in high risk areas will be significantly higher than the low risk areas. It will also allow regulators to put additional commitments at an early stage for environmental and social performance. This principle allows for the government to balance environmental and social interests of the nation, with mining priorities in the longer term;

(ii) Strategic Assessment in Key Mining regions: Understanding that mining activities occurs in clusters which have impacts at a regional level, undertake a strategic assessment of regional and cumulative impacts and develop a Regional Mineral Development Plan based on as assessment of the regional “capacity” at periodic intervals. Creating an institutional structure to own and implement such plans in key mining regions and taking critical decisions on mining, new leases, allocation of resources, and even possible moratorium on mining to ensure more sustainable planning and development in such regions;

(iii) Managing impacts at the Mine level impact through sound management systems: The key elements of this principle are impact assessment of key environmental, social, health and safety issues, development of management framework and systems at the mine level and continual improvement of the same on the basis of international

standards on a self driven basis. A key element is disclosing performance on environmental and social parameters to external stakeholder at every stage of the project lifecycle;

(iv) Addressing Land, Resettlement and Other Social Impacts: This principle demands a comprehensive assessment of social impacts and displacement of mining projects at the household, community and mining region level, and management commitment to address those impacts through mitigation measures and management plans;

(v) Community engagement, benefit sharing and contribution to socio-economic development: The principle seeks commitment to regular engagement with the local community as well as sharing of project benefits with the affected families. It is rooted in the principle of sharing profits with the affected communities already provisioned for the in draft MMDR Act awaiting approval. It dovetails the social impact management of project operations with the CSR initiatives being undertaken and looks at an integrated approach to mitigate impacts and improve local livelihoods and living conditions in the neighborhood areas/communities.

(vi) Mine Closure and Post Closure: Mining operations must prepare, manage and progressively work on a process for eventual mine closure. This process must cover all relevant aspects and impacts of closure in an integrated and multi-disciplinary way. This must be an auditable document and include a fully scoped and accurate estimate of planned cost of closure to the company. The cost estimates must be adequately provisioned to cover national, regional and local legal and regulatory requirements for closure; and must also include the cost of servicing all agreements/commitments made with stakeholders towards post-closure use;

(vii) Assurance and Reporting: This principle seeks mining sector stakeholders to assess their performance against this SDF and demonstrate continual improvement on this performance over the life of the project. It requires this performance to be reported in a structured manner in a Sustainable Development Report to be disclosed in the public domain as well as to regulatory agencies to consider during approval processes.

Information to be displayed under Mining Tenement System

The registry component as well as GIS application will be developed to display following data.

- Display of green field and brown field areas where
 - State agencies like GSI, IBM, MECL, AMD and DMGs (referred to as state agencies) have not worked.
 - Areas where state agencies have conducted regional exploration only.
 - Areas where state agencies have conducted detailed prospecting.
 - Areas where state agencies are exploring simultaneously with lease holders.
- Identification of areas available for grant of Reconnaissance Permit, Prospecting Licence or Mining Lease in terms of
 - Notified by the State Government.
 - Non-notified areas.
 - Areas reserved for Public Sector Undertakings or under Section 17(A) of MMDR Act.
 - Areas relinquished by leaseholders after operations under Reconnaissance Permit or Prospecting Licence.
- Type of exploration data available with state agencies.
- Linking of mining leases to captive industry.
- General information about Reconnaissance Permit, Prospecting Licence or Mining Lease.
- Maps using GIS displaying following value added layers:
 - Infrastructure, drainage, villages, habitats, etc.
 - Regional geology
 - Locations of reconnaissance permit, prospecting licence, mining lease, etc.
 - Forest overlays as per the data of NRSA.
 - Location of mines.
 - Location of mineral based industry.
 - Location of mines linked to mineral based industry.
- Information of technical and commercial interest will be displayed.
 - Specifications of minerals as per its industrial use.
 - Threshold grade of various minerals.
 - Availability of marginal grade and sub grade mineral.
 - Availability of mining machinery indicating its capacity.
 - Forms of various returns to be submitted.
 - Any other information worth displaying.
 - List of abandoned mining sites giving brief history.

- Facility for on-line application and processing of mining tenements applications i.e. RP, PL and ML as per the provisions of Mineral Concession Rules, 1960.
- Facility for on-line submission of all returns to IBM and State Governments.
- Facility for on-line submission of Government revenue to Central as well as State Governments.
- Development of web portal as per the security guide lines and norms of the Government of India and web enabled database, GIS database and applications.