



सत्यमेव जयते  
Government of India

## Brief Statement of Activities, Targets and Achievements during 2013

### **Ministry of Mines**

Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi – 110 001

Website: <http://mines.gov.in>

## Ministry of Mines

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Ministry of Mines	-	<a href="http://mines.gov.in">http://mines.gov.in</a>
Geological Survey of India	-	<a href="http://www.portal.gsi.gov.in">www.portal.gsi.gov.in</a>
Indian Bureau of Mines	-	<a href="http://www.ibm.nic.in">www.ibm.nic.in</a>
National Aluminium Company Limited	-	<a href="http://www.nalcoindia.com">www.nalcoindia.com</a>
Hindustan Copper Limited	-	<a href="http://www.hindustancopper.com">www.hindustancopper.com</a>
Mineral Exploration Corporation Limited	-	<a href="http://www.meclindia.com">www.meclindia.com</a>
Jawaharlal Nehru Aluminium Research Development and Design Centre	-	<a href="http://www.jnarddc.gov.in">www.jnarddc.gov.in</a>
National Institute of Rock Mechanics	-	<a href="http://www.nirm.gov.in">www.nirm.gov.in</a>
National Institute of Miners Health	-	<a href="http://www.nimh.gov.in">www.nimh.gov.in</a>
Nonferrous Materials Technology Development Centre	-	<a href="http://www.nftdc.res.in">www.nftdc.res.in</a>
Centre for Techno Economic Mineral Policy Options (C-Tempo)	-	<a href="http://www.c-tempo.org">www.c-tempo.org</a>

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# **Brief Statement of Activities, Targets and Achievements** **during 2013**

## **1. MINISTRY OF MINES: AN OVERVIEW**

1.1 Ministry of Mines is responsible for survey and exploration of all minerals, other than natural gases, petroleum and atomic minerals; for mining and metallurgy of non-ferrous metals like aluminium, copper, zinc, lead, gold, nickel etc. and for administration of the Mines and Minerals (Development and Regulation) Act, 1957, and rules made thereunder in respect of all mines and minerals other than coal, natural gas and petroleum as well as Offshore Areas Mineral (Development and Regulation) Act, 2002 and rules made thereunder.

### **List of subjects allocated to the Ministry of Mines:**

1.2 The following subject are allocated to Ministry of Mines:

- (a) Legislation for regulation of mines and development of minerals within the territory of India, including mines and minerals underlying the ocean within the territorial waters or the continental shelf, or the exclusive economic zone and other maritime zones of India as may be specified, from time to time by or under any law made by Parliament.
- (b) Regulation of mines and development of minerals other than coal, lignite and sand for stowing and any other mineral declared as prescribed substances for the purpose of the Atomic Energy Act, 1962 (33 of 1962) under the control of the Union as declared by law, including questions concerning regulation and development of minerals in various States and the matters connected therewith or incidental thereto.
- (c) All other metals and minerals not specifically allotted to any other Ministry/Department, such as aluminium, zinc, copper, gold, diamond, lead and nickel.
- (d) Planning, development and control of, and assistance to, all industries dealt with by the Ministry.
- (e) Administration and management of Geological Survey of India.
- (f) Administration and management of Indian Bureau of Mines.
- (g) Metallurgical-grade silicon.

### **Attached Office / Subordinate Office:**

1.3 Geological Survey of India (Headquarters at Kolkata) is an attached office and Indian Bureau of Mines (Headquarters at Nagpur) is a subordinate office of the Ministry.

### **Public Sector Undertakings**

1.4 There are three Public Sector Undertakings under the Ministry of Mines, namely:-

- National Aluminium Company Limited (NALCO), Bhubaneswar
- Hindustan Copper Limited (HCL), Kolkata
- Mineral Exploration Corporation Limited (MECL), Nagpur

### **Autonomous Bodies**

1.5 There are three Research Institutions which are Autonomous Bodies of this Ministry:

- Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), Nagpur;
- National Institute of Rock Mechanics (NIRM), Kolar Gold Fields, Karnataka, and
- National Institute of Miners' Health (NIMH), Nagpur.

1.6 In addition to the above, there are two registered Societies, namely, the Nonferrous Materials Technology Development Centre (NFTDC), Hyderabad and Centre for Techno-Economic Policy Option (C-Tempo), New Delhi, both of which are non-grant institutions within the administrative purview of Ministry of Mines.

1.7 The organization chart of the Ministry is at **Annexure – 1.1**.

## 2. MINERALS AND METALS IN THE COUNTRY

### National Mineral Scenario

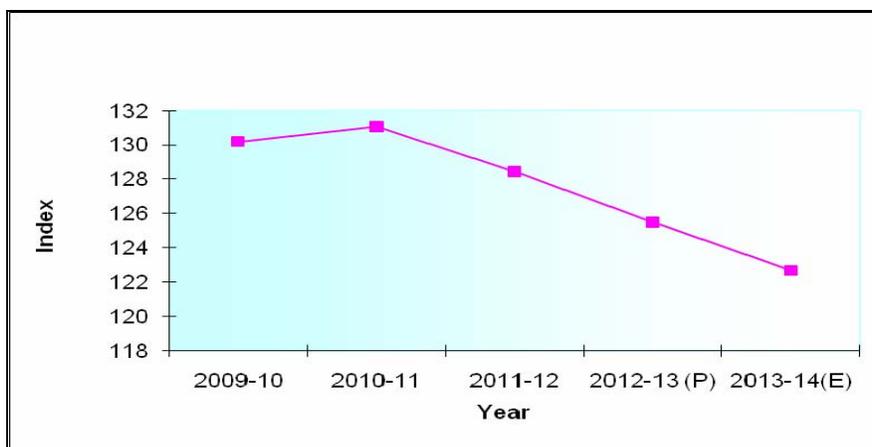
2.1 The country is endowed with huge resources of many metallic and non-metallic minerals. Mining sector is an important segment of the Indian economy. Since independence, there has been a pronounced growth in the mineral production both in terms of quantity and value. India produces as many as 89 minerals, which includes 4 fuel, 10 metallic, 48 non-metallic, 3 atomic and 24 minor minerals (including building and other materials).

### Mineral Production

2.2 Based on the overall trend so far the index of mineral production (base 2004-05) for the year 2013-14 is estimated to be 122.7 as compared to 125.5 for 2012-13 showing a negative growth of 2.23%. The trend of index of mineral production and trend of value of mineral production for the last five years is depicted in **Figure 2.1** and **Figure 2.2** respectively. The value of minerals produced by groups for the last five years is given in **Figure 2.3**

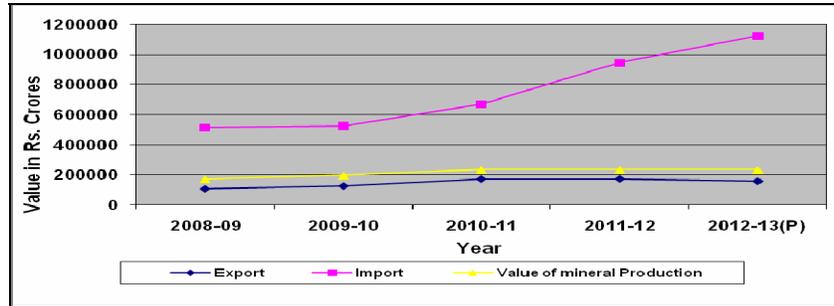
2.3 The total value of mineral production (excluding atomic minerals) during 2013-14 has been estimated at ₹ 227176 crores, which shows a decrease of about 9.32% over that of the previous year. During 2013-14, estimated value for fuel minerals account for ₹ 155646 crores or 68.51%, metallic minerals, ₹ 37213 crores or 16.39% of the total value and non-metallic minerals including minor minerals ₹ 34317 crores or 15.10% of the total value

**Figure 2.1**  
**Index of mineral production (Base 1993-94=100)**



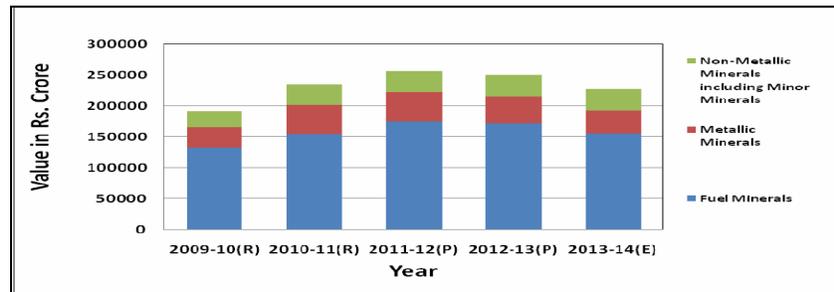
**Figure 2.2**

**Trends in Value of Mineral Production, Exports & Imports**



**Figure 2.3**

**Value of Minerals Production (By groups)**



**Price Trend**

2.4 The Office of the Economic Advisor, Ministry of Commerce and Industry has already shifted the base year from 1993-94 to 2004-05. The WPI for minerals (base 2004-05=100) stood at 363.7 in October 2013, and the corresponding index was 339.8 for October, 2012.

**Gross Domestic Product from Mining & Quarrying Sector**

2.5 The Gross Domestic Product (GDP) accrued from mining and quarrying sector at 2004-05 prices is estimated by CSO. The advance estimates of GDP (at 2004-05 prices) for the first two quarter of the year 2013-14 the mining and quarrying sector accounted for about 1.82% GDP of the first two quarter. The contribution of mining and quarrying sector to GDP for first two quarter of the year 2013-14 is estimated at ₹ 49813 crore indicated a decrease of about 1.65% over that in the previous year. Similarly, the advance estimates of GDP (at current prices) for the first two quarter of the year 2013-14, the mining and quarrying sector accounted for about 2.02 % GDP of the first two quarter. The contribution of mining and quarrying sector to GDP for the first two quarter of the year 2013-14 is estimated at ₹ 99776 crore indicated a decrease of 1.47% over that in the previous year.

**Mining**

2.6 Indian mining industry is characterized by a large number of small operational mines. The number of mines which reported mineral production (excluding minor minerals, petroleum (crude), natural gas and atomic minerals) in India was 3461 in 2013-14 as against 3691 in the previous year. Out of 3461 reporting mines, 636 were located in Andhra Pradesh followed by Rajasthan (448), Gujarat (410), Madhya Pradesh (338), Tamil Nadu (315), Jharkhand (258), Karnataka

(186), Chhattisgarh (195), Odisha (184), Maharashtra (154 and West Bengal (127). These 11 States together accounted for 93.93% of total number of mines in the country in 2013-14. The numbers of reporting mines are given in **Table 2.1**.

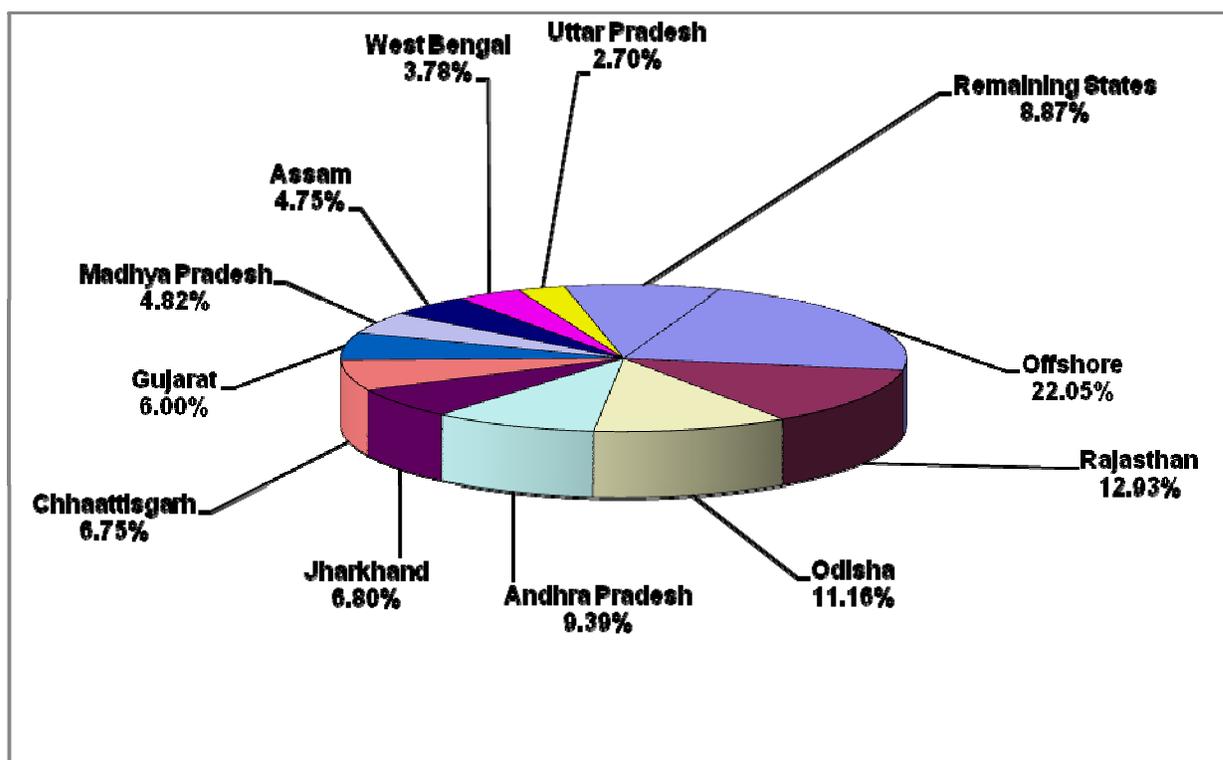
**Table 2.1**  
**Number of Reporting Mines**

Sector	2011-12	2012-3(P)	2013-14(E)
<b>All Minerals*</b>	<b>3603</b>	<b>3691</b>	<b>3461</b>
Coal (including Lignite)	573	573	573
Metallic Minerals	682	635	626
Non-Metallic Minerals	2348	2483	2262

*\*Excluding atomic minerals, petroleum (crude), natural gas (utilized) and minor minerals.*

**2.7** The contribution of States/Regions in the value of mineral production during 2013-14 is pictorially shown in **Figure 2.4**.

**Figure 2.4**  
**Share of States in Value of Mineral Production 2013-14(Estimated)**



### **3. NATIONAL MINERAL POLICY 2008, MINES AND MINERALS (DEVELOPMENT & REGULATION) BILL AND MINERAL CONCESSION SYSTEM**

**3.1** In the federal structure of India, the State Governments are the owners of minerals located within their respective boundaries. The Central Government is the owner of the minerals underlying the ocean within the territorial waters or the Exclusive Economic Zone of India.

**3.2** In this context, the entry at serial No. 23 of List II (State list) to the Constitution of India states,

***'Regulation of mines and mineral development subject to the provisions of List I with respect to regulation and development under the control of the Union.'***

**3.3** The entry at serial No. 54 of List I (Central list) to the Constitution of India states,

***'Regulation of mines and mineral development to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest.'***

**3.4** In pursuance to the entry at serial No. 54 of List I, the Central Government have framed legislation titled Mines & Minerals (Development and Regulation) (MMDR) Act, 1957 as Central Act No. 67 of 1957.

#### **MMDR Bill -**

**3.5** Based on the National Mineral Policy, 2008 the Ministry of Mines has prepared a draft Mines and Minerals (Development and Regulation) (MMDR) Bill, 2011, after due consultations with all the stakeholders including State Governments, industries and concerned Ministries/Departments of Central Government, and representatives of civil society groups concerned with environmental/societal impact. The draft MMDR Bill, 2011 was introduced in the Lok Sabha on 12th December, 2011 and referred to the Standing Committee on Coal and Steel on 5th January, 2012. The Standing Committee has given its report on the MMDR Bill, 2011 on 7th May, 2013. The Ministry is in the process of carrying out official amendments to the MMDR Bill, 2011 on the basis of the recommendations made by the Standing Committee.

#### **Revision Cases**

**3.6** The Ministry of Mines in exercises of its revisionary powers under section 30 of the Mines and Minerals(Development & Regulation) Act, 1957 in dealing with the Revision Applications(RA) filed by the applicants who are aggrieved by any order passed by the State Government or any other authority in exercise of the powers conferred by the MMDR Act, 1957. Detailed procedure for filing & disposal of Revision Applications has been prescribed under Rule 54 and 55 of Mineral Concession Rules (MCR) 1960. Revisionary Authorities at the level of Joint Secretaries, in the Ministry of Mines have been deputed for the purpose of disposal of Revision Application. The proceedings of the revisionary authority have been held as 'quasi-judicial'. The total number of revision applications pending as on 31.12.2013 is given in **Table 3.1**.

**Table 3.1**  
**Current files State Wise as on 31<sup>st</sup> December, 2013**

SL.NO.	State	Pendency
1	Andhra Pradesh	38
2	Bihar	3
3	Chhattisgarh	64
4	Goa	8
5	Gujarat	30
6	Haryana	5
7	Jharkhand	6
8	Karnataka	21
9	Madhya Pradesh	173
10	Maharashtra	2
11	Orissa	141
12	Rajasthan	180
13	Tamil Nadu	22
14	Uttarakhand	3
15	West Bengal	1
	<b>Total</b>	<b>697</b>

**Mineral Concession Grant Process-**

**3.7** The State Governments are the owners of the minerals located within their respective boundaries. They grant the mineral concessions [Reconnaissance Permit (RP), Prospecting License (PL) and Mining Lease (ML)] under the provisions of the Mines and Minerals (Development and Regulation) (MMDR) Act, 1957. Prior approval of the Central Government is required under Section 5 (1) of the Act for grant of RP, PL and ML in respect of any mineral specified in the First Schedule to the Act. Subsequent to the prior approval of the Central Government, mining leases etc. are executed by the State Governments in favour of the applicants with the mining agencies after they obtain all statutory clearances and approvals. The metallic minerals which figure in Part 'C' of the First Schedule to the Act in which prior approval is required are Asbestos, Bauxite, Chrome Ore, Copper ore, Gold, Iron ore, Lead, Manganese ore, Zinc and precious stones.

**3.8** During the Financial Year 2013-14 (from 1.4.2013 to 26.12.2013), approval of the Central Government was conveyed in respect of 34 mineral concession proposals referred to it by the State Governments, which included 27 proposals for PL and 7 cases for ML.

**3.9** The position regarding mineral concession proposals disposed of by the Ministry of Mines during the year 2013-14 is given are tables 3.2, 3.3 and 3.4.

**Table – 3.2**

Status of Reconnaissance Permit (RP) proposals during the period from 1.4.2013 to 26.12.2013

State	No of Proposals pending at the start of the period	No of proposals Received during the period	No. of prior approvals conveyed	No. of proposals returned to the State Govt.	No. of Proposals pending as on 26.12.2013
Andhray Pradesh	4	0	0	0	4
Madhya Pradesh	7	4	0	6	5
Rajasthan	3	0	0	0	3
West Bengal	2	1	0	0	3
<b>Total</b>	<b>16</b>	<b>5</b>	<b>0</b>	<b>6</b>	<b>15</b>

**Table 3.3**  
**Status of Prospecting Licenses (PL) proposals during the period from 1.4.2013 to 26.12.2013**

State	No of Proposals pending at the start of the period	No of proposals Received during the period	No. of prior approvals conveyed	No. of proposals returned to the State Govt.	No. of Proposals pending as on 26.12.2013
Andhra Pradesh	3	3	2	0	4
Chattisgarh	17	2	1	0	18
Gujarat	1	0	0	0	1
Jharkhand	3	0	1	0	2
Karnataka	9	0	2	0	7
Madhya Pradesh	83	33	19	23	74
Maharashtra	5	0	0	0	5
Manipur	4	3	1	0	6
Meghalaya	5	0	0	0	5
Orissa	1	0	0	0	1
Rajasthan	2	1	1	0	2
West Bengal	2	1	0	0	3
<b>Total</b>	<b>135</b>	<b>43</b>	<b>27</b>	<b>23</b>	<b>128</b>

**Table 3.4**  
**Status of Mining Leases (ML) proposals during the period From 1.4.2013 to 26.12.2013**

State	No of Proposals pending at the start of the period	No of proposals Received during the period	No. of prior approvals conveyed	No. of proposals returned to the State Govt.	No. of Proposals pending as on 26.12.2013
Andhra Pradesh	36	11	0	2	45
Chattisgarh	10	3	0	0	13
Gujarat	15	4	0	0	19
Jharkhand	1	0	0	0	1
Karnataka	16	1	0	1	16
Kerala	4	0	0	0	4
Madhya pradesh	20	19	3	3	33
Maharashtra	11	0	0	1	10
Manipur	1	1	0	0	2

Orissa	1	0	0	0	1
Rajasthan	24	10	4	2	28
Tamil Nadu	20	10	0	9	21
<b>Total</b>	<b>159</b>	<b>59</b>	<b>7</b>	<b>18</b>	<b>193</b>

**3.10** Major initiatives taken by the Ministry for making the Mineral Concession System efficient and transparent.

- The Ministry of Mines had constituted a Coordination-cum-Empowered Committee (CEC) under the chairpersonship of Secretary (Mines) to monitor and minimize delays at various levels in grant of approvals for mineral concession applications on 4.3.2009. Keeping in view the need for having more effective coordination among the Central Ministries/Departments and the State Governments for grant of mineral concessions as well as for dealing with various important matters relating to mineral development and regulation in the country, the CEC has been reconstituted as "Coordination-cum-Empowered Committee on Mineral Development and Regulation" on 20th October, 2011. The CEC comprises senior officers of the Ministries of Mines, Environment and Forests, Home Affairs, Steel, Railways, Finance, Shipping, Fertilizers, Department of Atomic Energy, Directorate General of Civil Aviation (DGCA), Geological Survey of India (GSI), Indian Bureau of Mines (IBM). Representatives of State Governments are invited to the meetings of the CEC as special invitees. The Terms of Reference (TOR) of the CEC have also been broadened so as to bring within its ambit other important matters viz. Sustainable Development Framework, Coordination/review of steps for prevention of illegal mining, issues arising out of the National Mineral Policy and legislation governing mineral development etc.
- The CEC meets quarterly, and has held thirteen meetings so far, wherein important decisions aimed at minimizing delays in processing of mineral concession applications at various levels and bringing about efficiency and transparency in the overall mineral concession regime were taken.
- One of the main decisions taken by the CEC in its first meeting that has been reiterated in the subsequent meetings was that a State level Coordination-cum-Empowered Committee (SEC) would be constituted in each State under the chairmanship of Chief Secretary or Additional Chief Secretary/Principal Secretary of the Mining/Industries Department with representation from all concerned Departments/institutions. As per the information received by the Ministry, all mineral-rich States viz. Andhra Pradesh, Chhattisgarh, Gujarat, Goa, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan and Tamil Nadu have constituted their respective SECs. The other major decisions/steps taken by the CEC relating to mineral concessions were: calling upon the State Governments to ensure timely submission of quarterly reports on mineral concessions, prompt issuance of letters of intent (LOI), and expeditious disposal of long-standing concession cases.
- The Ministry of Mines has, in consultation with the State Governments, issued detailed guidelines on 24th June, 2009, in order to bring more clarity in processing the mineral concession proposals under the Mines and Minerals (Development & Regulation) Act, 1957 and Mineral Concession Rules, 1960. The guidelines also seek to ensure application of uniform criteria and transparent principles by the State Governments while examining and recommending proposals to the Central Government.
- Based on an analysis of the cases falling under Section 11 (5) of the Act, as well as the consultations with the State Governments in the meeting of the CEC held on 22nd December, 2009, the Ministry of Mines has framed a Policy on 'special reasons' to be adopted and applied by all State Governments while recommending a mineral concession proposal in favour of a later applicant under Section 11(5) of the Act. Guidelines in this regard have been issued to the State Governments on 9th February, 2010.

- In the context of its responsibility to dispose of the mineral concession proposals within a reasonable time, the Ministry of Mines has issued guidelines on 29th July, 2010 regarding return of cases to the State Governments wherein there has been no response to the Ministry's queries for over six months. Besides, in order to ensure that the areas recommended by the State Governments for mineral concessions are clearly demarcated, the Ministry has issued comprehensive guidelines on 13th October, 2010 regarding submission of maps by the State Governments along with the proposals.
- In view of the opinion of the Hon'ble Supreme Court dated 27.9.2012 on the Presidential Reference made in the context of the observations made in the order dated 2.2.2012 of the Apex Court in the 2G Spectrum Case regarding allocation of natural resources, the Ministry of Mines on 11.2.2013 has prescribed modified Checklists for RP, PL and ML in order to further stream line the processing of mineral concession proposals. These guidelines are available on the Ministry's website (<http://mines.gov.in>).
- The Ministry has taken an initiative to process all mineral concession proposals within one month of their receipt in the Ministry by way of their preliminary scrutiny, in order to ensure that the documents/information submitted along with the proposals are as per the requirements under the provisions of the MMDR Act, 1957 and Rules and guidelines framed thereunder.
- The Ministry of Mines is using internet services to bring about more accessibility and transparency in processing the mineral concession applications recommended by the State Governments. The website of the Ministry (<http://mines.gov.in>) provides all information on the current status of the mineral concession applications.

## **4. REVENUE FROM MINERAL RESOURCES**

### **Royalty**

**4.1** The Second Schedule to the MMDR Act, 1957 specifies the rate at which royalty shall be payable in respect of any minerals. Under the provisions of Section 9(3) of the MMDR Act, 1957, the Central Government may, by notification in the Official Gazette, amend the Second Schedule, so as to enhance or reduce the rate at which royalty shall be payable in respect of any minerals with effect from such date as may be specified in the Notification, provided that the Central Government shall not enhance the rate of royalty in respect of any minerals more than once during three years.

**4.2** Similarly under Section 9A(2) of the Act, the Central Government may, by notification in the official Gazette, amend the Third Schedule so as to enhance or reduce the rate at which the dead rent shall be payable in respect of any area covered by mining lease and such enhancement or reduction shall take effect from such date as may be specified in the notification, provided that the Central Government shall not enhance the rate of the dead rent in respect of any such area more than once during three years.

**4.3** Ministry of Mines has set up a Study Group to consider revision of rates of royalty and dead rent on major minerals (other than coal, lignite and sand for stowing) and to make appropriate recommendations to the Government. The Study Group submitted its Report on 28.6.2013 which is under the consideration of the Ministry.

## **5. INTERNATIONAL COOPERATION:**

**5.1** Geology and mining is an evolving field. Various countries have expertise in different sectors of this industry. Through international cooperation, Ministry of Mines strives for access to the expertise across the world. This is achieved through personnel exchange and training wherever feasible. Indian expertise in certain areas has also been found useful by some countries who have utilised

the training facilities available in India to upgrade the skill of their personnel. The Ministry also makes effort to project mining sector of India as an attractive investment destination in various international mining events for attracting foreign direct investment.

## **Participation in Leading International Mining Events abroad**

### **Mining Indaba, 2013**

**5.2** The 'MINING INDABA, 2013' (*Indaba* in Zulu language means business) – which is one of the largest mining exhibitions and conferences – was held during 4<sup>th</sup> - 7<sup>th</sup> February, 2013 at Cape Town, South Africa. This annual event brings together global investors and market leaders in the African continent and Ministers from key departments of South Africa and Sub-Saharan Africa. A 25-member Indian delegation led by Shri R.H. Khwaja, Secretary, Ministry of Mines participated in the event. A large number of African countries took part in the exhibition and showcased the wide range of mining blocks available in their respective countries. The objectives of participating in the event was to explore business opportunities for the Indian companies in the mining sector of South Africa and other African countries, interaction with mining companies to explore joint venture projects and also to explore investment opportunities besides participating in the INDABA Conference. The Ministry of Mines participated and made presentation on the capabilities of the Indian mining sector at the Conference.

### **PDAC – 2013**

**5.3** The annual convention of the Prospectors and Developers Association of Canada, 'PDAC-2013', which is the largest, most important and prestigious event in the global mining industry, was held during 3<sup>rd</sup>– 6<sup>th</sup> March, 2013 at Toronto, Canada. The Convention was attended by over 30,000 delegates from across the world.

**5.4** A Government of India delegation led by Shri R.H. Khwaja, Secretary, Ministry of Mines along with participants from other Government Departments such as Department of Atomic Energy, Government of Andhra Pradesh, Public Sector Undertakings of Ministry of Mines, Ministry of Steel and representatives from private sector companies participated in this event. The Indian pavilion received the attention of a large number of visitors and prospective investors. An 'India Day' was also organized on 5<sup>th</sup> March, 2013, concurrently with the PDAC convention, which showcased India's mineral wealth and capabilities and potential of the Indian Mining Industry as an investment destination.

## **6. ATTACHED/ SUBORDINATE OFFICES**

### **Geological Survey of India (GSI)**

**6.1** GSI is an attached office of the Ministry of Mines. It is headquartered at Kolkata and has six Regional offices located at Lucknow, Jaipur, Nagpur, Hyderabad, Shillong and Kolkata. The State Unit offices exist in almost all States of the country. Government constituted a High Powered Committee (HPC) in 2008 to thoroughly review the functioning of GSI and assess its capacity to meet the emerging challenges taking into account the technological and manpower resources of the organization. The report of the HPC was approved by the Cabinet in October 2011.

### **6.2 Important Developments in 2013**

- ❖ A workshop on "Envisioning and Script Writing" was organised at Hyderabad on the 6<sup>th</sup> and 7<sup>th</sup> June 2013 under the chairmanship of Secretary, Ministry of Mines. The workshop designed by the Ministry of Mines was basically a brainstorming session on how to develop GSI into a world-class institution for fundamental as well as applied geosciences, keeping up with the latest technologies and methodologies.

- ❖ Prior to the workshop, a total of sixty officers individually submitted write-ups on significant contributions and major failures of GSI in the last sixty-five years and the measures they would like to take over a period of next three years and thirty years so that the glory of GSI can be restored and it can productively contribute to the economic growth of the country. The deliberations of the workshop were compiled and published as a Special Publication "Quest for Excellence" in July 2013. The ideas generated in the 'Quest for Excellence' are presently being converted into a time-bound action plan and the same will be reflected in next year's Field Season Programme (FSP).
- ❖ With a view to stepping up its marine activities especially sea-bed mapping and mineral exploration in off-shore areas, GSI has acquired a new Oceanographic Research Vessel (ORV) R.V. Samudra Ratnakar fitted with 27 state-of-the-art equipment and constructed at Hyundai Heavy Industries, Ulsan, South Korea. The vessel was dedicated to the nation by Shri Dinsha Patel, Hon'ble Minister of Mines, on 12<sup>th</sup> October 2013 at Kandla Port, Gujarat. The total cost of the vessel is about ₹ 650 crore. The vessel will commence its regular cruises for FSP 2013-14 from January 2014.

The vessel has capability of probing the surface features in metre-scale resolution and the subsurface structures up to a depth of 6000 m with its multi channel seismic system. It has state-of-the-art facility to observe the sea bottom with its Remotely Operated Vehicle (ROV) and collect sediment samples up to a depth of 30 m below the sea bed with its coring system. In addition to locating economic minerals on the sea bed it will be used for locating gas hydrate occurrences and hydrocarbon reserves below sea bed. The vessel will also be deployed for exploring the international waters for scientific purposes and for deep-sea mineral exploration.

- ❖ GSI has procured one Advanced Light Helicopter (ALH) Dhruv helicopter VT-HAU from Hindustan Aeronautics Limited, Bangalore suitably modified to accommodate state-of-the-art Time Domain Electro-Magnetic (P-THEM) system fitted on a heliborne platform along with the latest magnetic, spectrometric and gravity Heliborne Geophysical Survey Systems (HGSS). The integration/ installation process has been completed and the customised HGSS is scheduled for commencement of operation following its dedication to the Nation on 22 January 2014. The first heliborne survey is planned over a test area covering Aladahalli-Nuggihalli schist belt in Hassan district, Karnataka.
- ❖ As a follow-up to the decision taken by Technical Advisory Committee for Landslide Mitigation and Management, headed by the Secretary, MoM, three regional workshops were planned to be organised by GSI, the nodal agency for landslide studies in India. The first workshop was arranged at Shimla on 19<sup>th</sup> and 20<sup>th</sup> June 2013, while the second at Shillong on 22<sup>nd</sup> and 23<sup>rd</sup> November 2013. The third workshop is scheduled to be held on 17<sup>th</sup> and 18<sup>th</sup> January 2014 at Ooty, Tamil Nadu. Some of the major decisions taken during the two workshops are:
  - GSI should open Geohazard Research and Management (GHRM) Cell in all the landslide affected regions and also appoint nodal officers in the State Units of such Regions.
  - GSI to formulate perspective work plan for covering the landslide susceptibility mapping of the areas as envisaged in National Disaster Management Authority (NDMA) guidelines.
  - NDMA and GSI to take measures for avoidance of duplication of work in the field of landslide studies and all activities in this regard should be made available to GSI by other agencies for uploading in GSI portal.
  - Public awareness campaign on landslide issues through public lectures in the universities/institutes and other public fora to be initiated.
  - The need for creation of a network system involving NGOs working in the field of landslide was emphasized and GSI was directed to take an extra step in this regard.

- ❖ The revised organisational structure as proposed by HPC has largely been implemented. As a result of the “Right sizing’ of GSI and introduction of Mission Offices” at both National and Regional levels, new posts were created as their functional domains, responsibility profiles and reporting structures needed revision. Accordingly, “A manual on roles and responsibilities and reporting mechanism of Missions, Regions and Support Systems” has been prepared. The manual pertaining to the Technical streams (Geology, Geophysics, Chemistry and Engineering) has been approved by Ministry of Mines. The process for the preparation of manual related to Administrative, Finance and Personnel streams has been initiated.
- ❖ GSI participated and put up an exhibition stall in Mining, Exploration Convention and Trade Show (MINING MAZMA-2013) organised by Federation of Indian Mineral Industries (FIMI) in Bangalore International Exhibition Center (BIEC), Bangalore from 19<sup>th</sup> to 21<sup>st</sup> September 2013 which was inaugurated by Shri R. H. Khwaja, Secretary, Ministry of Mines, Government of India. GSI stall highlighted the newly acquired state-of-the-art research vessel R. V. Samudra Ratnakar and Heliborne Geophysical Survey System attached to the Dhruv helicopter. Special focus was given to GSI’s leadership in winning the bid at Bisbane in August 2012 to host the International Geological Congress (IGC) in the year 2020. The GSI stall won 2<sup>nd</sup> best prize in the categories of Government organisations and PSU participation in the exhibition.
- ❖ On the occasion of the Golden Jubilee Celebrations of State Units: Karnataka & Goa, GSI organized a National workshop on Five Decades of GSI’s contributions to Geoscience of Karnataka and Goa on 20th and 21st September 2013. The workshop was inaugurated by Shri R. H. Khwaja, Secretary, Ministry of Mines, and Shri D. S. Mishra, Joint Secretary, Ministry of Mines was the guest of honour. ‘Geological map of Karnataka’ ‘Brochure’, 1:50K maps (8 Nos.), 1 QGM of Hassan, the book titled ‘Quest for excellence’, etc. were released on the occasion. Some of the topics discussed in the workshop were ‘Recent advancements in Dharwar Geology’, ‘Sargur Complex: The earliest rock association in the Geology of Karnataka, its tectonic framework as a mélange, its relationship with tonalities and its evolution’, ‘Harnessing gold resources for development’, ‘The sustainability dimension, groundwater studies and research in Karnataka’ and ‘GSI in building engineering structures’ etc.

### **Activity Domain of GSI**

**6.3** Geoscientific work of GSI encompasses practically the entire gamut of Earth sciences and thus great responsibilities are bestowed on the organisation. In accordance with the HPC recommendations, the activities of GSI have been reorganised into 5 Missions in line with its future challenges, which are namely, Baseline Geoscience Data Generation (Mission I), Natural Resource Assessments (Mission II), Geoinformatics (Mission III), Fundamental and Multi-disciplinary Geoscience (Mission IV) and Training and Capacity Building (Mission V). Three Support Systems, viz. Policy Support System (PSS), S & T Support System (STSS) and Administrative Support System (ASS) have been introduced and structured to provide support and cross-cutting co-ordination.

### **Performance of GSI during 2013-2014**

**6.4** Year-wise, scheme-wise financial performance of GSI against the approved Plan outlay during first two years of the XII Plan is given in **Annexure-6.1**. Targets and achievements during the last financial year (2011-12) of XI Plan and first two years of XII Plan (2013-2017) of GSI are given in **Annexure-6.2**.

## Mineral Resource Assessment (Ores and Minerals):

6.5 Some of the important breakthrough in identifying new prospects and estimating of additional resources of minerals are:

### Gold

- In Gundelapara NW Block of Banswara district, Rajasthan, 2.90 million tons of gold ore with 1.63 g/t (UNFC-333) and 0.063 million tons gold ore with 1.148 g/t (334)
- In Ajjanahalli D Block Tumkur district, Karnataka **gold** mineralized zone has augmented 1.05 mt of gold ore with 0.94g/t (333)

### Basemetal

- In Khera block, Alwar district, Rajasthan a total of 23.46 million tons of **Copper** ore with 0.28% Cu(333) ,1.32 million tons of **gold** ore with 0.66g/t Au (333) and 1.51 million tons of **silver** ore with 6.55%Ag (333) has been augmented
- In Mahawa block, Sikar dist, Rajasthan **copper and lead** a total of 2.19 million tons of copper ore with 0.38% Cu (333) and 0.65 million tons of Lead ore with 0.24% Pb (333) has been augmented.

### Iron Ore

- A total of 29.24 million tons of **iron ore** (at Cut off Fe of 55%) (333) with Fe 63.72%, SiO<sub>2</sub> 1.83% , Al<sub>2</sub>O<sub>3</sub> 3.53%) has been augmented in Ghoraburhani Sagasahi area,Sundergarh dist, Orissa.

### Manganese

- In Damurda South Block, Kendujhar district, Orissa 1.20mt(333) manganese ore having 29.35 % Mn content has been augmented.
- In Savali Block and Mohgaon Block, Nagpur district, Maharashtra, **manganese** ore of different tonnage and grades i.e 64152 tonnes (333) of 7.65% Mn ; 13122 tonnes(333) of 25.12% Mn and 0.014 million tonnes (334) Of 11.01% Mn has been augmented.

## Specialized investigations:

6.6 One of the important specialized studies undertaken during the year is the preliminary geological assessment/ studies of the natural disaster in the five affected districts following the heavy rain in the catchment areas of the major rivers of Uttarakhand state, during the period from 15<sup>th</sup> June to 17<sup>th</sup> June, 2013, causing severe damage to life and property in Uttarkashi, Tehri, Pauri, Rudraprayag, and Chamoli districts of Garhwal region and Bageshwar, Almora, Pithoragarh districts of Kumaon region. Consequent upon the 72 hours incessant and torrential rains, the trunk streams like Bhagirathi, Alaknanda, Mandakini, Dhuliganga, Pindar and Kali swelled enormously. The rivers with unprecedented discharge swept away many settlements/houses located in the villages and townships on the banks of these rivers. During this period the Mandakini and its tributaries like Kali Ganga and Madhya Maheshwar Ganga played havoc along their courses causing heavy damage to life and property, particularly, in the downstream areas. The worst affected areas are Kedarnath, Rambara, Gauri Kund, Sonprayag, Chandrapuri, Agastmuni and Tilwara. The heavy to very heavy downpour triggered a number of landslides and debris flows that took a heavy toll of livestock and property on the mountain slopes. The debris flows caused damage to settlements and communication routes (NHs and SHs) at several locations completely snapping the supply of essential commodities to the remote areas/ villages. GSI has carried out preliminary geological assessment/studies of the disaster in all the five affected districts and identified the area where site specific detailed geological mapping / assessment will be carried out.

## **Subordinate Office:**

### **Indian Bureau of Mines (IBM)**

**6.7** The Indian Bureau of Mines is a multidisciplinary scientific and technical organization under the Ministry of Mines with statutory and developmental responsibilities for promotion of scientific development of mineral resources, conservation of minerals, protection of environment in mines.

**6.8** The activities of IBM are in accordance with its charter of functions notified by the Government vide resolution No. 35/1/2002-M.III dated 6<sup>th</sup> March 2003 and are implemented through various Schemes as detailed in **Annexure. 6.3** Activities vis-a-vis Achievements in brief are as follows:

#### **Activity: Inspection of Mines for Scientific and Systematic mining, mineral conservation and mines environment.**

**6.9** Achievement: Inspected 2,556 Mines. Approved 152 Mining Plans, 609 Schemes of Mining and 32 Final Mine Closure Plans and carried out 12 Regional Mining Geological Studies. To sensitise the importance of mineral conservation and protection of environment, organised 14 Mines Environment and Mineral Conservation Weeks in non-fuel mines pan India. For speedy and effective implementation of amendment to rule 45 of MCDR, 1988, IBM created a portal to facilitate online registration of miners, traders, stockists, exporters and end users of mineral and submission of monthly and annual return thereon.

#### **Activity : Mineral Beneficiation Studies – utilization of low grade and sub-grade ores and analysis of environmental samples**

**6.10** Achievement : To encourage value addition and mineral conservation completed 55 Mineral Beneficiation Investigations. Carried out chemical analysis for 40,355 radicals and 2,399 Mineralogical Studies. Conducted 09 in-plant studies to evaluate performance audit of mineral processing plants and to suggest trouble shooting.

#### **Activity : Technological upgradation and Modernisation**

**6.11** Achievement : Released National Mineral Inventory-At a Glance as on 1.04.2010 and finalized National Mineral Inventory – An Overview as on 1.04.2010 in respect of 70 minerals as per United Nations Framework Classification of mineral resources. Intermediate Updation of NMI as on 1.4.2013 for 12 minerals is in progress. Updated 100 multi-mineral leasehold maps with forest overlays in respect of two States on a scale of 1:50,000. Completed 05 Mining Research oriented Consultancy Assignments and 03 Technical Consultancy Assignments on Mining, Geology and Environment. As part of the capacity building of human resources, conducted 20 training courses for the industry, State Governments employees, IBM employees etc including three exclusively for personnel from the NER States.

#### **Activity : Collection, processing, dissemination of data on mines and minerals through various publications**

**6.12** Released 19 statistical and allied publications and periodicals on various aspects of the mines and minerals. Inputs for replying 199 Parliament Questions & 560 Ministry references have been provided to Ministry of Mines. IBM provided Secretarial assistance to the Study Group for revision of rates of royalty and dead rent on major minerals ( other than coal, Lignite & Sand for stowing) constituted by the Ministry of Mines vide their OM dated 3/3/2011-MVI dated 13.9.2011

#### **Activity : Mining Tenements System**

**6.13** A scheme “Mining Tenement System” is being implemented by IBM 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. During the year, DPR of the Scheme prepared by a consultant have been approved by the Core Committee headed by Secretary (Mines), SFC approved & RFP finalized and tender floated.

## **Activity: Capacity building of State Government Development & Implementation of Ore Accounting Software**

**6.14** As per the advice of the Planning Commission, IBM had entrusted the job of preparation of Proof of Consent (PoC) to National Institute of Smart Government (NISG), Hyderabad. The NISG had submitted PoC Report and stated that in the present structural form, it is not possible to undertake the aforesaid project.

## **7. CENTRAL PUBLIC SECTOR UNDERTAKINGS (CPSUs)**

### **National Aluminium Company Limited (NALCO)**

#### **7.1 Introduction**

- National Aluminium Company Limited (NALCO), the largest integrated Alumina- Aluminium Complex in India, was incorporated on 7<sup>th</sup> January 1981 following technical collaboration agreement with Aluminium Pechiney of France. The project cost of ₹ 2,408 crores was part financed through *980 million euro dollar loan* extended by a consortium of International banks. The company has long back repaid the loan, besides contributing more than ₹ 20,000 crore to Central and State exchequer as tax and duties etc. and having cash reserves for future growth activities. It is an integrated and diversified mining, metal and power Group -A "Navratna" CPSE under Ministry of Mines and presently, Govt. of India holds 81.06% share of NALCO.
- The Company operates a Bauxite Mine of capacity 6.825 Million Tonnes Per Year (MTPA) and an Alumina Refinery of 2.1 Million Tonnes at Damanjodi, District Koraput, along with an Aluminium Smelter of 0.46 MTPA and 1200 MW Captive Thermal Power Plant at Angul, Odisha. The Company has port handling facilities at Visakhapatnam, Andhra Pradesh for export of Alumina/Aluminium and import of caustic soda. The Company also utilizes facilities at Kolkata and Paradeep Port for export of Aluminium. In addition, Company has also forayed into green energy production by way of setting up of two Wind Power plants in AP & Rajasthan.
- The Company is one of the lowest cost producers of alumina in the world. Its export earnings accounted for about 47% of the sales turnover in the year 2012-13 and was rated 3rd highest 'net export earning CPSE' of the Country in 2011-12.
- With ISO 9001:2000, ISO 14001, OHSAS 18001 and SA 8000 certifications and with products registered at London Metal Exchange, NALCO enjoys the status of a Premier Trading House. The Captive Power Plant is certified to Energy Management System Standard to ISO 50001:2011 and Alumina Refinery has also been recommended for certification.
- The Company has plans to set up Nuclear Power plants and thermal power plants as IPP and even UMPP.
- Looking beyond business interests, the company is involved in playing a significant role in the socio-economic development of the areas where it operates. Rehabilitation of displaced families through direct employment, income generation & health care for local people, development of infrastructure, care for environment and various humanitarian goodwill missions have earned NALCO a place of pride in the corporate world. In this regard, the Company has set up the NALCO Foundation and doubled the CSR budget to 2% of the net profit, to augment the activities in social sector significantly.

#### **Wind Power Plant**

**7.2** The Company has ventured into renewable energy sectors to meet the Renewable Power Obligation (RPO) and make its foot print in Green Energy. The 1<sup>st</sup> wind power plant of 50.4 MW at Gandikota, Andhra Pradesh having an investment of ₹ 274 crore, was commissioned in December, 2012. The 2<sup>nd</sup> wind power plant of 47.6 MW at Jaisalmer, Rajasthan, having an investment of ₹ 283 crore, is under progress of implementation out of which 30.6 MW capacity has been commissioned as of December, 2013.

### 7.3 Present Installed capacity of operating units:

Unit	Capacity
Bauxite Mines	68.25 Lakh TPA
Alumina Refinery	21.00 Lakh TPA
Aluminium Smelter	4.60 Lakh TPA
Captive Power Plant	1200 MW
Wind Power Plant-I	50.4 MW
Wind Power Plant-II	30.6 MW (Final Capacity:47.6 MW)

### 7.4 Physical Performance

Product	Unit	2010-11 Actual	2011-12 Actual	2012-13 Actual	MOU Target for 2013-14	2013-14 Actual up to Dec'13	*2013-14 Estimated Jan'14 to Mar'14
Bauxite Transportation	MT	48,23,909	50,02,626	54,19,391	64,50,000	45,05,154	21,24,846
Alumina Hydrate production	MT	15,56,000	16,87,000	18,02,000	21,50,000	14,25,500	6,24,500
Aluminium Metal Production	MT	4,43,597	4,13,089	4,03,384	4,05,000	2,37,913	71,087
Net Power Generation	MU	6,607.980	6,199.707	6,076	6,341	3760	1160

### 7.5 Sales Performance

Sales	Unit	2010-11 Actual	2011-12 Actual	2012-13 Actual	Target for 2013-14	2013-14 actual Up to dec'13	2013-14 estimated Jan'14-mar'14
Total Alumina/ Hydrate Sale	Lakh MT	6.82	8.42	9.83	13.52	9.69	4.84
Aluminium Export	Lakh MT	0.98	0.98	1.44	1.40	0.78	0.15
Domestic Aluminium Sale	Lakh MT	3.41	3.18	2.59	2.65	1.61	0.54
Total Aluminium Sale	Lakh MT	4.39	4.16	4.03	4.05	2.39	0.69

### 7.6 On-Going Projects

- **Utkal-E Coal Block**

Ministry of Coal, Govt. of India had allocated Utkal-E Coal Block to meet the coal requirement for 9<sup>th</sup> & 10<sup>th</sup> unit having 120 MW each as well as proposed 11<sup>th</sup> & 12<sup>th</sup> Captive Power Plant Units at Nalco, Angul. The total mineable reserve of Utkal-E Coal Block is 67.49 million tons. The mine life is 36 years at the target production of 2.0 million tons per year. The estimated cost of the Project is ₹ 338 crore at May, 2011 price level. Major milestones like approval of mining plan by Ministry of Coal, Environmental Clearance (EC) by MoEF, grant of Mining Lease by Ministry of

Coal, obtaining Consent to Establish from Odisha State Pollution Control Board (OSPCB), permission for water drawl from Singharajhor nalla by Department of Water Resource, Govt. of Odisha, obtaining Wildlife clearance from PCCF (Wildlife) and Chief Wildlife Warden, Odisha, DGPS Survey for Mining Lease area and obtaining Forest Right Certificate for 169.1779 Ha out of 197.787 Ha of forest land have been achieved. Disbursement of balance compensation of 40% for private land acquisition, construction of R&R colony, construction of common Rail corridor for coal evacuation by State Govt. and obtaining forest right certificate for balance 28.6 Ha forest land are yet to be completed.

- **Wind Power Project-II (47.6 MW) at Jaisalmer, Rajasthan:**

Investment approval was given in December,2012 for setting up a 47.6 MW wind power project II at an investment of ₹ 284 Crore. 36 wind energy generators (30.6 MW) out of 56 nos. (47.6 MW) have been commissioned. Construction of balance 20 WEGs is being expedited for which necessary permission from Govt. of Rajasthan has been received.

- **5th Stream at Refinery:**

Subject to availability of Pottangi Mines, Nalco has plans for a 5<sup>th</sup> stream Alumina Refinery having 1 million ton capacity, with advanced technology based on medium pressure digestion. DPR has been prepared and investment decision is on the way. As per DPR, investment will be ₹ 5,540 Crore.

## **7.7 Expansion / Diversification**

### **(i) Greenfield Growth Projects:**

NALCO has prepared the Detailed Project Report for setting up of a 1 MTPA alumina refinery project in Gujarat based on supply of bauxite by Gujarat Mineral Development Corporation (GMDC) from its bauxite mines in Kutch district at an estimated investment of ₹ 6263 crores. NALCO has planned to set up a Greenfield smelter and power plant in Sundargarh district in Odisha at an estimated investment of ₹ 16,345 crores. Site selection study and preliminary land survey for the proposed project is underway. Since allocation of captive coal block is a critical requirement for viability of the project, actions are being taken for the same.

### **(ii) Diversification**

- A JV Company between NPCIL and NALCO, "NPCIL-NALCO Power Company Ltd. (NNPCL)" has been incorporated in March, 2012. Kakrapar Atomic Power Station (KAPS) – 3 & 4 (2x700 MW) Project has been taken up at an estimated investment of ₹ 11,459 crores as the 1<sup>st</sup> JV Project. However, allotment of the project to the JVC by Govt. of India is awaited.

## **Energy Conservation**

**7.8** NALCO is one of the best performers in carrying out the energy conservation measures in all its units. Nalco is carrying out energy conservation measures through Small Group Activities (SGAs) by enhancing the energy efficiency in its different activities and processes.

## **Action Taken on Pollution Control and Environment**

- **7.9** All the units of NALCO are certified to International Standard ISO14001:2004-Environmental Management System. Nalco is proactive and has adopted preventive strategies like 3 R principle of Reduce, Reuse and Recycle.

## **Export/Import Performance**

**7.10** Under the Foreign Trade Policy 2009-10, NALCO has been granted with 'Premier Trading House Status' for achievement in export target. Certificate of recognition as Premier

Trading House has been issued on 30.9.2009 which is valid upto 31.3.2014. Premier Trading House status is the highest status awarded to any Export House by Govt. of India. NALCO has achieved export earnings of ₹ 3410 crore in the year 2012-2013.

### **Mineral Exploration Corporation Limited (MECL)**

**7.11** The Mineral Exploration Corporation Limited (MECL) since its inception in the year 1972 is carrying out mineral exploration activities. It is the premier exploration agency in the country and carries out its exploration activities under Promotional programme funded by Govt. of India and contractual programme on behalf of other agencies including Public Sector /Private Sector and State Government(s) on mutually agreed terms and conditions. So far, it has added 1,49,837 million tonnes of mineral reserves to National Mineral Inventory (upto 31-12- 2013). The authorised share capital and paid up equity of the company are ₹ 125.00 crores and ₹ 119.55 crores, respectively. The equity is fully held by Govt. of India.

**7.12** The Company's registered office is at Nagpur, (Maharashtra) and it manages the functioning of projects, the main production centres, through a two tier system from the Corporate Office at Nagpur. To facilitate the prompt maintenance of plants and machineries deployed at various projects, two Regional Maintenance Centres at Ranchi and Nagpur are being operated. Technical guidance to the projects, finalisation of geological reports, close liaisoning with the clients and looking for new business opportunities is being carried out through the Zonal Offices located at Ranchi, Nagpur, and Hyderabad. The commercial activities of the Company are being looked after by Business Development and Planning Division. In addition, two liaisoning office units are in operation at New Delhi and Kolkata.

**7.13** MECL is continuing its detailed exploration programme of various minerals as per national priorities identified in the Five Year Plan(s) and potentiality of the prospect. Accordingly, detailed exploration schemes are formulated and after due approval of Standing Committee on Promotional Projects (SCPP) and Ministry of Mines, projects are executed. Since its inception, MECL has carried out detailed exploration for ferrous, non ferrous, precious, industrial and other minerals on behalf of Ministry of Mines and a total of 4,945 million tonnes of reserves has been established.

### **Performance 2011-12 To 2013-14 (Upto December 2013)**

**7.14** The physical performance in drilling, developmental mining and geological reports for 2011-12, 2012-13, 2013-14 (upto December 2013) is given in **Table-7.1** and the financial performance is given in **Table-7.2**

**Table-7.1  
Physical Performance of MECL**

Items	2011-12	2012-13	2013-14	2013-14*
	Actuals	Actuals	MoU Target	Upto-Dec-'13 Achievement
Drilling (Mtrs.)	2,96,301	2,96,813	3,25,000	2,36,837
Mining (Mtrs.)	8,605	9,087	9,150	6,126
Final Geological Reports (Nos.)	30	23	15	16

**Table No.7.2  
Financial Performance of MECL**

(₹ in Lakhs)

Details	2011-12	2012-13	2013-14	2013-14*
	Actuals	Actuals	MoU Target	Upto-Dec-'13 Achievement
Gross Revenue (*)	159.82	171.68	185.50	134.59
Opening Cost	130.17	136.44	146.00	107.61
Depreciation and amortization	4.04	5.76	7.02	4.96
Net profit After Taxes	17.32	20.66	22.16	14.64

(\*) The gross revenue inclusive of other income

### **Hindustan Copper Limited (HCL)**

**7.15** Hindustan Copper Limited (HCL), a Mini Ratna Government of India (GoI) Enterprise under the administrative control of the Ministry of Mines, was incorporated on 9th November 1967 under the Companies Act, 1956. It was established as a Govt. of India Enterprise to take over all plants, projects, schemes and studies pertaining to the exploration and exploitation of copper deposits, including smelting and refining from National Mineral Development Corporation Ltd. It is the only company in India engaged in mining of copper ore and owns all the operating mining lease of Copper ore and also the only integrated producer of refined copper (vertically integrated company). Major activities of HCL include mining, ore beneficiation, smelting, refining and casting of refined copper metal into downstream products. HCL has four operating units – one each in the States of Rajasthan, Jharkhand, Madhya Pradesh and Maharashtra. HCL is a listed company on BSE and NSE, with 90.00% equity owned by the GoI.

### **7.16 Highlights of 2013**

- i. The Company has paid dividend to its shareholders at the rate 20% of the equity holding.
- ii. HCL is a Zero debt Company.
- iii. Profit After Tax for financial year 2012-13 of ₹ 355.64 crore was best ever since inception
- iv. Ore production of 36.57 lakh tonne in 2012-13 was highest in last 13 years.
- v. As part of its effort to restore to and ensure sustainability & eco-friendly mining, the Company has planted around 1.25 lakh saplings in collaboration with MP Van Vikas Nigam, Bhopal.
- vi. HCL was awarded "50 Most Caring Companies of India" in the World CSR Congress 2013 held in Mumbai on February 18, on World CSR Day.
- vii. Rolled out 08 Mine Expansion Projects to quadruple mine capacity from 3.2 million tonne to 12.4 million tonne per annum in the next five years. The Company has obtained Environment Clearance for Malankhand Underground Mine project from Ministry of Environment & Forests, Govt. of India in June 2013.
- viii. In terms of CCEA approval dated 14.9.2012, the Government of India has sold 8,87,23,300 equity shares (9.59%) from out of its existing shareholding in Hindustan Copper Limited (HCL) in two tranches through 'Offer for Sale' (OFS) through the Stock Exchange mechanism and mobilized an amount of ₹ 1,067.76 crores. After above disinvestment of shares, the Government shareholding in HCL has come down from 99.59% to 90.0% making the Company compliant with SEBI requirement of minimum public shareholding of 10% in listed CPSEs

**7.17 Existing capacities of HCL's Mines and Smelters are given below:**

<b>Mines</b>	
Location of Mines	Ore Capacity (As per IBM approved Mine Plan)
Khetri Copper Complex, Rajasthan	14.00 lakh tonnes per annum #
Malanjkhand Copper Project, Madhya pradesh	20.00 lakh tonnes per annum
Indian Copper Complex, Jharkhand	4.00 lakh tonnes per annum
<b>Total :</b>	<b>38.00 lakh tonnes per annum</b>

# - includes production capacity of Khetri Kolihan and Banwas mines (which is under development)

<b>Smelters</b>	
Location of Smelters	Metal Capacity
Khetri Copper Complex, Rajasthan	31,000 tonnes per annum *
Indian Copper Complex, Jharkhan	20,500 tonnes per annum
<b>Total :</b>	<b>51,500 tonnes per annum</b>

\* - Plant not operational since Dec., 2008 due to economic reasons

<b>Wire Rod Plant</b>	
Location of Plant	<u>Capacity</u>
Taloja Copper Project, Maharashtra	60,000 tonnes per annum

**7.18 Physical Performance:**

Product	2011-12 Actual	2012-13 Actual	Target for 2013-14	2013-14 Actual (upto Dec.,2013)
Ore Production('000MT)	3479	3657	3900	2891
Metal in Concentrate (MT)	31378	29285	35200	24145
Refined Copper (Cathode) (MT)	28358*	24210	16500	15406*
Wire rod (MT)	26310	20368	30100	15197

\* includes tolled cathodes.

**7.19 Financial Performance:**

(₹ in crore)

SI No	Details	Actual for the previous 2 years		Target for 2013-14	2013-14 Actual (upto Sept., 2013)
		2011-12	2012-13		
1.	Turnover	1638	1475	1651	594.00
2.	Net Profit/(Loss) before Income Tax	472.92	403.61	404.17	103.42
3.	Net Profit/(Loss) after income tax	323.44	355.64	273.05	80.58

The Company has achieved total sales of 20259 MT of copper during 2013-14 (upto December, 2013). The anticipated sales of copper during 2013-14 would be around 33,000Tonnes.

## **8. CORPORATE SOCIAL RESPONSIBILITY (CSR)**

### **National Aluminium Company Limited (NALCO)**

#### **Periphery Development & CSR Initiatives:**

**8.1** For CSR activities, the Company is allocating 2% of its net profit out of which 1% for Periphery Development Programme is spent, primarily through the Rehabilitation and Periphery Development Advisory Committees (RPDACs), set up by the Government of Odisha and 1% through Nalco Foundation, set up on the Guidelines on CSR or CPSEs, issued by the Department of Public Enterprises (DPE), Govt. of India.

#### **8.2 CSR highlights during April – December 2013**

##### **(i) Mobile Health Units:**

The Company is operating 8 mobile health units (MHUs) in the periphery villages of its Smelter and Power Complex, Angul (43 villages) and Mines and Refinery Complex, Damanjodi (142 villages). The mobile health units of Damanjodi are being operated through Wockhardt Foundation and that of Angul through Lion's Club, Angul. These MHUs provide primary health service at the villagers' doorstep, comprising free medicine, diagnostics and awareness building through Information Education and Communication (IEC) activities. From April 2013, to December-2013, total 1854 nos. mobile health camps have been organized and total 82943 patients have been treated.

##### **(ii) Relief Measures:**

To assist the Odisha Government in meeting the challenges of rehabilitation and construction works following the severe Cyclone "Phailin", The Company has contributed ₹ 10.00 Crores to the Chief Minister's Relief Fund. Further relief materials in the form of polythene sheets, Candles, match box etc. distributed in the affected areas of Balasore Puri and Ganjam Districts by incurring expenditure of ₹ 19.00 lakhs.

#### **8.3 NALCO Foundation**

##### **(i) School Education for Tribal students:**

NALCO Foundation has sponsored residential education of 655 children till they attain matriculation including 401 children sponsored for the academic year 2012-13 and additional 254 children during the academic year 2013-14.

##### **(ii) Study through CREWA**

Nalco Foundation has conducted an extensive study through Center for Rural Energy and Water Access (CREWA) for identifying the water and energy requirements in 142 periphery villages of Damanjodi, and also collected macro-level baseline information about the villages through the same survey. This information shall be helpful in planning and implementation of projects in Damanjodi sector.

#### **8.4 CSR activities for the financial year 2013-14**

- For the financial year 2013-14, a total amount ₹ 1185.66 lakhs has been allocated for CSR activities through RPDAC and Nalco Foundation.
- As on date a total amount of ₹ 157.00 lakhs out of 20% of the above amount assigned for Corporate Level has already been committed till date.

- RPDAC meeting for S&P Complex, Angul is scheduled to be held on 18.01.2014, for the finalization of Peripheral development Projects. In the mean while, PD works amounting to ₹ 82.32 Lakhs has been approved and are in progress in the contiguous villages of Lean Slurry Project area in Angul District.

#### **Hindustan Copper Limited (HCL):**

**8.5** HCL embraces the principles of United Nations Global Compact (UNGC). HCL's CSR Policy revolves round the principles laid down in the Millennium Development Goals (MDGs) and Targets.

**8.6** Realigning its CSR approach with the (Department of Public Enterprises) DPE Guidelines, a fresh need-assessment survey was conducted to identify Need-Based CSR projects for financial year 2013-14 targeting communities in the periphery of Company's mining units. The plan made provisions to address livelihood, agriculture/horticulture/plantation, veterinary services, improved health and sanitary practices, infrastructure development, drinking water & water resource development program, to fit in a ₹ 7.1 crore budget.

**8.7** The projects are being implemented in the target communities with the help of recommended local NGOs. A third-party evaluation is also in process. Following CSR activities have been taken up during the year.

- Livelihood: Alternative employment schemes through self-help groups in projects like pisciculture, vocational training etc.
- Agriculture/Horticulture/Plantation: Plantation of fruit-bearing trees, maintenance of existing plantation at Surda & River side and plantation of perennial plants around project.
- Health, Hygiene and Sanitation: Regular health camps and eye camps were held.
- Food & Nutritional Security: Integrated cropping, Rural Medical camps (Doctor & paramedical staff), Rural Medical camps (Medicines), Eye camps, Veterinary camp (including vaccination), Construction of Household latrine in one village.
- Water Management: Rain water harvesting structure, Safe drinking water structure (Bore well with motor fitting) including soak pit for water recharging, services.
- Solar Energy Programme: Installation of Solar Street lights at community place.

**8.8** The actual expenditure in the CSR activities during last three years is given in **Table 8.1**.

**Table 8.1**

<b>Financial Years</b>	<b>Spent (Rs crore)</b>
2011-12	1.60
2012-13	5.13
2013-14 (upto Dec.,2013)	3.00

#### **Mineral Exploration Corporation Limited (MECL)**

**8.9** MECL has drawn a long term Corporate Social Responsibility Policy;

**8.10** For the year 2013-14, an amount of ₹ 52.46 lakhs have been envisaged under Corporate Social Responsibility towards sanitation and public health, providing drinking water facility and promoting education of children, providing sewing machines to the women belonging to weaker sections around MECL projects. The action for implementation of the above activities are under progress. An amount of ₹ 12.80 lakhs have been envisaged for sustainable development

activities towards energy management, carbon emission management and material and natural resource management.

**8.11** Welfare of SC/ST:MECL gives due importance to meet socio-economic needs of the SC and ST communities. For this purpose, we provide health check-up facilities and training to these communities for their welfare and career development etc under the SC/ST sub plan Scheme for the year 2013-14.

**8.12** During 2013-2014, 20% of the total scholarship are kept reserved for children of SC/ST employees under the MECL Employees Grant of Scholarship Scheme.

**8.13** Women and weaker sections: Being a CPSU, MECL is committed for raising and improving the socio-economic status of women and weaker sections of the society. For this purpose, Health Check-up facilities and training to women for their welfare and career development etc. are provided. under the SC/ST sub plan Scheme for women for the year 2012-13.

**8.14** Under the CSR activities during 2013-14, 5 Projects have been identified for sanitation and public health under which toilets for students are being constructed in 6 Govt. Schools around our Projects. Similarly for providing drinking water facility to the weaker sections around MECL projects, atleast 1 borewell each is being constructed near 6 identified MECL Projects.

**8.15** Sewing machines will be provided and vocational training will be given on stitching and knitting to the women in villages around 10 projects of MECL.

## 9. INTEGRATED FINANCE DIVISION:

### 9.1 Annual Plans

- The Ministry had proposed a Gross Budgetary Support (GBS) of ₹ 956.73 crore for Annual Plan 2013-14, against which the Planning Commission allocated ₹ 467.00 crore. For payment of the final installment of Ocean Research Vessel (ORV) and related expenses an additional amount of ₹ 103.14 crore was allocated through Supplementary Demands for Grants by the Ministry of Finance.

- The Ministry has proposed GBS of ₹ 844.66 crore for the Annual Plan 2014-15. The proposed outlay (organization wise) alongwith allocation of the Ministry of Mines is given in the **Table 9.1**

**Table: 9.1**  
**Annual Plan 2014-2015 (Proposed) GBS and Allocation**

(₹ in Crore)			
Sl. No.	Organisation	Proposed Outlay	Allocation
1	MECL Promotional	10.00	10.00
2	GSI	697.29	483.70
3	IBM	60.85	53.00
4	S&T Programme	22.30	20.30
5	Construction		
	GSI	51.22	80.00
	IBM	3.00	3.00
	<b>Total</b>	<b>844.66</b>	<b>650.00</b>

### Audit

**9.2** Audit paras are being reviewed quarterly in the Standing Audit Committee (SAC) meeting under the Chairmanship of Secretary (Mines). There have been ten meetings since the inception

of the Committee. There were 9 Audit paras pending in the Ministry during the beginning of the year. Due to quarterly reviews by SAC and other related monitoring committees, 3 paras have been settled during the year and only 6 are pending.

## 10. PUBLIC GRIEVANCES

**10.1** Department of Administrative Reforms & Public Grievances (DAR&PG) is implementing a web based Centralized Public Grievance Redressal and Monitoring System (CPGRAM) vide which grievances of Ministries / Departments are forwarded for redressal. Joint Secretary of the Ministry of Mines has been designated as the Director of Public Grievances and vested with adequate powers in respect of matter pertaining to public Grievances. During the year 2013-14 (upto 31st December 2013), 322 cases were received. After examination/scrutiny these were referred to concerned Organization/ Authority for taking further necessary action in the matter.

## 11. VIGILANCE

**11.1** During the year 2013-14 (upto 31 December, 2013), 50 complaints were received out of which 8 cases were forwarded by CVOs, 14 complaints were forwarded by CVC for investigation, 1 complaint was received from CBI and rest were received directly from public/unions. Out of these 50 complaints 26 were brought to their logical conclusion and 24 complaints are still under investigation. Vigilance Awareness Week was observed from 29.10.2013 to 03.11.2013. During the week, essay competition related to vigilance activities was organized.

## 12. SCIENCE & TECHNOLOGY PROGRAMME

**12.1** During the year a meeting of the Project Evaluation and Review Committee was held on 29.10.2013. Further, based on the recommendations of Project Evaluation and Review Committee (PERC), the meeting of the 44<sup>th</sup> Standing Scientific Advisory Group (SSAG) was held on 18.12.2013 in which 7 Project Proposals were approved for Grant-in-Aid under the S&T Programme and 5 on-going projects for release of last installment and extension of projects.

**12.2** The Plan and Non plan grant released during the year 2013-14 (up to December 2013) are given in the tables **12.1 and 12.2**.

**Table 12.1**

<b>Plan Grant</b>		
<b>Sl.No</b>	<b>Project/Institutions</b>	<b>Funds released (in lakhs)</b>
1.	Study of toxic fumes and development of carbon nanotubes based sensing device, Central Institute of Mining & Fuel Research, Dhanbad and Amity University, Noida	₹ 8.928 lakh (CIMFR) & ₹ 6.102 lakh Amity University
2.	Characterisation of Indian lean grade magnesite ore, Central Glass & Ceramic Research Institute, Kolkata	₹ 11 lakh
3.	Federation of Indian Mineral Industries, New Delhi (IEC).	₹ 10 lakh
4.	Mineral systematic and pre-concentration of PGE values, Institute of Mineral & Material Technology, Bhubaneswar	₹ 33.56 lakh
5.	A Pilot study on Health Status of Mines workers and nearby population, NIMH, Nagpur	₹ 3.76 lakh
6.	Mining Engineers Association of India, Hyderabad (IEC)	₹ 5 lakh
7.	Development of Multilayered Materials for melting liquid, NFTDC, Hyderabad.	₹ 25.66 lakh

8.	Production of Ferro-Nickel from chromite overburden (COB) and nickel laterite, Institute of Minerals & Materials Technology, Bhubaneswar.	₹ 8.10 lakh
9.	Systematic study of potential biomarkers of occupational diseases in miners, National Institute of Miner Health, Nagpur	₹ 4.06 lakh
10.	Development of water resistant ANFO for blasting in water y holes, Central Institute of Mining and Fuel Research, Dhanbad	₹ 3.04 lakh
11.	Feasibility and application of bio-fuel as well as low cast, Central Institute of Mining and fuel Research, Dhanbad	₹ 6.50 lakh
12.	Development of a real time instrument/system to measure bath ratio, alumina concentration and superheat of the Aluminium electrolysis bath, JNARDDC, Nagpur.	₹ 7.80 lakh
13.	Recovery of copper from copper smelter dust and novel fixation, NFTDC, Hyderabad.	₹ 20 lakh

**Table 12.2**

### Non Plan Grant

Sl.No.	Organization	Funds released
1.	NIMH	₹ 115.49 Lakh
2.	NIRM	₹ 232 Lakh
3.	JNARDDC	₹ 243.60 Lakh

### The Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC), Nagpur

**12.3** JNARDDC an Autonomous Body under Ministry of Mines is a “Centre of Excellence” set up in 1989 as a joint venture of Ministry of Mines, Government of India and UNDP with a view to provide major R&D support system for the emerging modern aluminium industry in India.

**12.4** The Centre is also recognized as a scientific & industrial research organisation by the Department of Scientific & Industrial Research, Ministry of Science & Technology, Government of India. It is the only institute of its kind in India pursuing the cause of R&D from bauxite to finished product under one roof.

**12.5** The objective of the Centre is to assimilate the technology available in the country and abroad for the production of alumina and aluminium including aluminium alloys as well as to develop technical know-how for the basic engineering process and downstream areas and to provide training to the personnel employed in the Indian aluminium industries.

**12.6** The Centre caters to R&D needs of both primary and secondary producers. It has made key contribution in the areas of beneficiation, characterization, technological evaluation, upgradation of bauxites, reduction of energy consumption and environmental pollution by the effective utilization of aluminium industry residue materials such as red mud, dross & scrap etc. and process modeling for the overall interest of the aluminium industry and the nation as a whole.

### Major Activities in 2013

**12.7** The Centre completed four major projects in the field of bauxite and alumina and ten R&D projects were in progress till December, 2013 for various government and non-government organisation viz. National Aluminium Company Ltd. (NALCO), Bhubaneswar, Gujarat Mining Development Corporation (GMDC) Ahmedabad, Defence Metallurgical Research Laboratory (DMRL), Hyderabad, Mineral Exploration Corporation Ltd. (MECL), Nagpur. Several projects are under negotiation with NALCO, Ministry of Environment & Forests (MoEF), VEDANTA, Aria Chemicals Pvt. Ltd. etc. The major ongoing projects of Ministry of Mines and Industry / other organizations are given below:

## 12.8 Science & Technology Projects sponsored by Ministry of Mines

- Development of mathematical modeling using fuzzy logic to control superheat of aluminium electrolysis bath;
- Development of portable analytical kit for field analysis of bauxite : Emphasis on in-situ micro-analysis of mineral entities for mineral prospecting;
- Upgradation & utilisation of laterite of East- and West Coast deposits, and
- Process development for production of low soda ( $\text{Na}_2\text{O}$ ) hydrate in bayer circuit.

## 12.9 Projects sponsored by aluminium industries and other organizations

- Study of effect of alumina quality on solubility in electrolytic bath on lab scale **NALCO**, Angul;
- Beneficiation of low-grade bauxite/laterite of Kutch and Saurashtra deposits in Gujarat; **GMDC** (Gujarat Mining Development Corporation), Ahmedabad;
- Bench scale studies for treatment and utilization of Carbon portion of aluminium spent pot-liner (SPL): recovery of Carbon, Sodium and Fluorine values (**NALCO**).
- Indigenization and development of wrought aluminium alloys for Indian defence sector, **DMRL**, Hyderabad, and
- Caustic soda consumption audit for NALCO Alumina Refinery (**NALCO**)
- Analysis of impurities (Fe, Si, Ca etc.) in alumina and aluminate liquor using hand held spectrometer (**NALCO**)
- Characterization and technological testing of Gujarat bauxite for (**NALCO**)

### JNARDDC as sector expert

**12.10** The Bureau of Energy Efficiency (**BEE**), Ministry of Power has nominated JNARDDC as a sector expert for the aluminium sector under the PAT (Perform, Achieve & Trade) Scheme in the National Mission for Enhanced Energy Efficiency (**NMEEE**) under Climate Change Project launched by the Hon'ble Prime Minister of India. The services of JNARDDC are utilized by BEE as a sector expert for evaluation of energy audit reports of Indian aluminium industries.

**12.11** The Centre achieved an Internal and Extra Budgetary Resource generation (IEBR) of ₹1.51 crores upto December, 2013.

### National Institute of Miners' Health (NIMH)

**12.12** National Institute of Miners Health, Nagpur (NIMH) is an autonomous institute established under Ministry of Mines, Govt. of India with the objective of promotion of occupational health and prevention of occupational diseases among the persons employed in mining and mineral bases industries.

**12.13** The Institute is engaged in research and developmental activities relating to occupational health, work place monitoring etc. The institute with the vision to ensure "Safe Mines and Healthy Miners" and with the mission "Mining and Minerals Industry sans Occupational Diseases" is contributing towards improvement of health of the miners by promoting occupational health & hygiene, health education, providing quality technical support services, facilitating compliance with the national statutes and international standards in mining industry. The institute has developed the brand image and reputation of providing quality comprehensive technical support services in the field of occupational health and hygiene.

**12.14** The Institute is recognized as a Scientific & Industrial Research Organization by the Department of Scientific & Industrial Research, Ministry of Science & Technology, Government of India.

**12.15** The Institute provides services mainly to metalliferous mining companies viz. NALCO, ACC, UltraTech, NMDC, Essel Mining, Sesa Goa, GMDC, APMDC, RSMML, etc. It is also in process of providing services to Coal Companies viz. Northern Coalfields Ltd. and Western Coalfields Ltd.

### **Key Achievements**

**12.16** The Institute detected high prevalence of silicosis among stone mine workers in Karauli district of Rajasthan in collaboration with Dang Vikas Sanstha and ARAVALI, the NGOs initiated by State Government of Rajasthan (GoR). The GoR already has ear-marked funds to improve working condition of miners and have started special free treatment programme for silicosis victims. The GoR has approved ex-gratia payment of ₹ 1.00 Lakhs each to 68 Silicosis affected persons and ₹ 3.00 Lakhs each to 5 cases of death due to silicosis to the family members.

**12.17** The Institute formulated guidelines for Health Risk Assessment due to exposure to Whole Body Vibration in HEMMs.

**12.18** During 2012-13, the institute has completed workplace monitoring studies in 18 mines and conducted health surveillance of 1888 mine workers in 10 mines. The Institute generated IEBR of ₹ 115.15 lakhs during the year.

### **12.19 Science & Technology Projects sponsored by Ministry of Mines (Completed)**

- Development of a protocol for evaluation of vibration hazard potential of mining equipment;
- Systematic study of potential biomarkers of occupational diseases in miners;
- A Pilot study on Health Status of Mine workers and nearby Population around Iron Ore Mines;

### **National Institute of Rock Mechanics (NIRM)**

**12.20** The National Institute of Rock Mechanics (NIRM) is a premier centre for research in applied and basic rock mechanics. It is an ISO-9001:2000-certified Research Institute. The Institute is located at Kolar Gold Fields, Karnataka and it has one unit at Bangalore. The present strength of the Institute is 57, out of which 49 are scientists and scientific/technical staff.

**12.21** NIRM provides research and consultancy services for improving safety and productivity in the mining and civil engineering sectors and for infrastructure projects. Equipped with the state-of-the-art laboratory facilities and software, and with experienced manpower, the Institute plays a vital role in offering technical services in mining, hydro-electric and tunneling projects, site evaluation for construction of nuclear power plants and underground storage caverns for petroleum products.

**12.22** NIRM carries out research work through both government-funded and industry-sponsored S&T and consultancy projects. The clientele includes the mining industry (metalliferous & coal mines, underground & opencast mines); civil engineering industry (underground caverns and tunnels for hydro-power projects, nuclear power project sites), and infrastructure development industry (underground metros and LPG/crude oil storage caverns).

## **Projects Undertaken**

**12.23** During the year 2013, NIRM carried out investigations for 64 research projects, of which, 29 are new projects taken up this year. The projects of national importance carried out by the Institute during the year include the geological mapping and design of rock support systems for the underground tunnels and structures for irrigation projects in Andhra Pradesh, geophysical investigations for Haldia-Barauni pipeline section within Ranigang coal belt area, 3D numerical modelling for mine shafts and underground caverns of hydroelectric projects, rock blasting close to structures for the Chennai Metro Rail, blast design for limestone mines and canal works, and rip-rap blasting for the dam construction works at Indira Sagar Polavaram Project, Andhra Pradesh.

**12.24** NIRM also carried out proof testing and non-destructive testing (NDT) of wire ropes, mining machinery and their accessories, as per the guidelines of the Directorate General of Mines Safety and as per international standards. In this regard, NIRM signed 5 MoUs with ONGC, UCIL, M/s Shaft Sinkers (Rajasthan) and M/s China Coal (Rajasthan).

## **Performance at a Glance**

**12.25** During 2013-14, NIRM completed 27 research projects, and continued investigations for another 37 projects. NIRM scientists contributed a total of 29 technical papers in various national/international journals and symposia.

**12.26** During the year 2013-14, the Institute is expected to register an internal revenue generation amounting to nearly ₹ 400 lakhs, and is likely to receive a Non-Plan grant-in-aid of ₹ 500 lakhs from the Ministry.

## **13. WELFARE ACTIVITY**

### **Welfare of Scheduled Castes (SCs), Scheduled Tribes (STs), Women and other Weaker Sections**

**13.1** The Ministry of Mines, with its attached office, subordinate office and the Public Sector Undertakings under its administrative control, strives to fill up the backlog vacancies in respect of SC/ST. For upliftment of weaker sections of society, PSUs identify and implement a number of programmes in the peripheral area of their units/locations. A number of activities like community education programmes, facilitating availability of drinking water, development/repair of approach roads of surrounding areas, arranging health awareness programmes and medical camps in rural areas were undertaken by the PSUs for upliftment of the community in and around their townships as part of their social responsibility.

**13.2** For the welfare of persons with disabilities in the Ministry, due attention is being given to Section 33 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, which provides that every appropriate Government shall appoint in every establishment such percentage of vacancies not less than three per cent for persons or class of persons with disability, of which one per cent shall be reserved for persons suffering from (i) blindness or low vision; (ii) hearing impairment, and (iii) locomotor disability or cerebral palsy in the posts identified for each disability.

## **14. PROGRESSIVE USE OF HINDI IN OFFICIAL WORK.**

### **Introduction**

**14.1** The Ministry of Mines, through various measures, ensures compliance of the Official Languages Policy of the Union of India in the Ministry as well as in its Attached/Subordinate Offices and PSUs. Utmost efforts have been made for due compliance of Section 3(3) of Official

Languages Act, 1963 during the period under report . Letters received in Hindi are replied to in Hindi. Officers/employees are nominated for training in Hindi Language (Prabodh, Praveen & Pragma), Hindi stenography and Hindi typing as and when required.

### **Hindi Salahakar Samiti**

**14.2** During the year 2013-14, meeting of the Hindi Salahakar Samiti was held on 18.06.2013 under the Chairmanship of Hon'ble Minister of Mines Shri.Dinsha Patel.

### **Meetings of Official Language Implementation Committee**

**14.3** The Official Language Implementation Committee has been constituted in the Ministry headed by the Joint Secretary. The quarterly meetings of the Committee are held regularly.

### **Measures for Implementation of Official Language Policy**

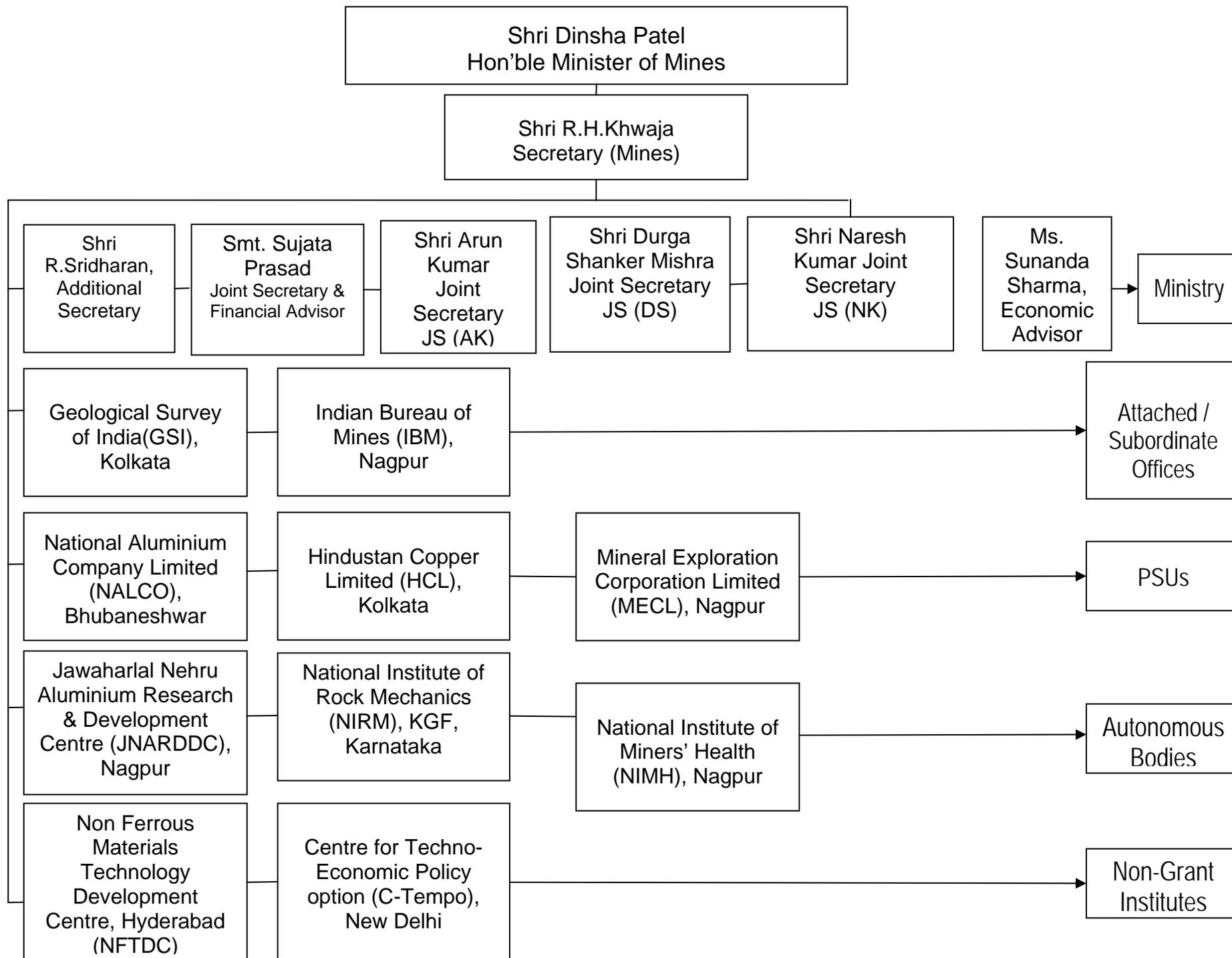
**14.4** In order to inspire and encourage the officers/employees of the Ministry to work in Hindi, various Cash Award Schemes of the Department of Official Language have been implemented and Hindi workshops were organized.

### **Hindi Fortnight**

**14.5** With a view to create a conducive atmosphere for the progressive use of Hindi in the Ministry, Hindi fortnight was observed from 14-30th September, 2013. A message by Hon'ble Minister for Mines, Shri Dinsha Patel was also circulated in all the sections, units and attached/subordinate offices of the Ministry.

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### Organizational Structure of Ministry of Mines



## ANNEXURE-6.1

## Year wise Scheme-wise Financial Performance of GSI against the approved Plan outlay during first two years of the XII Plan

(₹ in Crore)

Schemes	2012-13									2013-14						TOTAL	
	BE			FE			Actual			BE			Actual (upto Dec'13)			Break up of Total Grant of XII Plan	Total Actual Expnd. (upto Dec'13)
	GSI	NER	Total	GSI	NER	Total											
Survey and Mapping	41.77	6.27	48.04	43.49	6.27	49.76	43.00	6.50	49.50	65.05	6.10	71.15	56.47	5.24	61.71	599.29	111.21
Mineral Exploration	19.65	3.25	22.90	22.04	3.25	25.29	21.80	3.36	25.16	23.00	3.25	26.25	15.59	2.79	18.38	246.90	43.54
Spl. Investigation	6.78	1.22	8.00	6.78	1.22	8.00	6.52	1.17	7.69	7.00	1.00	8.00	2.55	0.83	3.38	41.53	11.07
Research & Development	5.80	2.28	8.08	6.08	2.28	8.36	6.09	2.27	8.36	6.35	1.68	8.03	4.18	1.73	5.91	62.08	14.27
Information Dissemination	15.82	2.35	18.17	13.40	2.35	15.75	12.91	2.36	15.27	14.60	1.40	16.00	10.96	1.37	12.33	238.52	27.60
HRD	5.43	0.71	6.14	4.91	0.71	5.62	4.88	0.74	5.62	5.50	0.60	6.10	5.24	0.52	5.76	37.34	11.38
Mod. & Replacement	71.59	3.32	74.91	147.91	3.32	151.23	149.08	3.40	152.48	343.58	3.87	347.45 #	324.67	1.00	325.67*	596.00	478.15
TSP	7.76	0.00	7.76	7.76	0.00	7.76	6.86	0.65	7.51	7.16	0.00	7.16	5.61	0.25	5.86	54.76	13.37
<b>Total</b>	<b>174.60</b>	<b>19.40</b>	<b>194.00</b>	<b>252.37</b>	<b>19.40</b>	<b>271.77</b>	<b>251.14</b>	<b>20.45</b>	<b>271.59</b>	<b>472.24</b>	<b>17.90</b>	<b>490.14</b>	<b>425.27</b>	<b>13.73</b>	<b>439.00</b>	<b>1876.42</b>	<b>710.59</b>
% of Utilisation of Fund against allotment (RE)									99.93						89.57		37.37
Construction Budget of GSI						10.00						10.00				128.00	
<b>GRAND TOTAL</b>																<b>2004.42</b>	

# ₹ 98.14 crore received in the 1<sup>st</sup> Supplementary towards 2<sup>nd</sup> phase of 6<sup>th</sup> and final installment of ORV\* Includes Ship Payment (i) 5<sup>th</sup> Instalment – ₹ 128.06 crores paid in 12<sup>th</sup> April 2013 & (ii) 1<sup>st</sup> Phase of 6<sup>th</sup> /Final Installment– ₹ 83.66 crore paid on 2<sup>nd</sup> August 2013(iii) 2<sup>nd</sup> Phase of 6<sup>th</sup> /Final Installment– ₹ 98.48 crore paid on 13<sup>th</sup> September 2013

Total Ship Payment (ORV) during FY 2013-14 : ₹ 310.20 Crore

**Target and Achievements during the Last Financial Year (2011-12) of XI Plan and First Two Years of XII Plan (2013-2017) Of Geological Survey of India**

Name of the Scheme /Project / Programme	Target Vs Achievement		Target Vs Achievement		Target Vs Achievement	
	Target (April 2011 to March 2012) π	Achievement (April 2011 to Mar 2012)	Target (April 2012 to March 2013) π	Achievement (April 2012 to Mar.' 2013)	Target (April 2013 to March 2014) π	Achievement (April 2013 to Dec.' 2013)
<b>MISSION-I : BASELINE GEOSCIENCE</b>						
<b>a)Ground Survey</b> Systematic Geological Mapping (sq km)	1376.69@	1037	1960	1289	2,000	1,647
Spl. Thematic Mapping (sq.km.) (1:25,000 scale)	11368.58@	12,144	15,000@	21,566.50	18,000	12349
Geochemical Mapping (in sq.km.) (1:50,000 scale)	40,635.60@	47,544	46,000@	80,318	75,000	46345.50
Geophysical Mapping (in sq.km.) (1:50,000 scale)	19222.27	19,865	22,000	27,535	27,000	19,023
<b>b)Aerial Survey</b> (i)Multisensor/Aero magnetic Survey* (with Twin Otter (lkm.)	29965	#	25,000	#	30,000	36,138
(ii)Heliborne Survey(lkm)	15,000ψ	\$	10,000	\$	15,000	Ω
<b>c)Marine Survey</b> i) Parametric Survey within EEZ and beyond						
a) Bathymetry (lkm)	3000	3572	5,000	4,596	3,000	4,351
b) Magnetic (lkm)	3000	3572	1,700	3,923	3,000	4,351
c) Swath Bathymetry(Sq.km )	61,100	68,853	50,000	59,342	40,000	20,720
ii) Territorial Water (sq.km)	2410 + Parametric surveys	2050	1,700	1,775	1,500	Nil
<b>MISSION-II : NATURAL RESOURCE</b>						
a) Large Scale Mapping (sq.km.)	1909.48 @	1878.9	2,500	4,916.59	4,500	3354.40
b) Detailed Mapping (sq.km.)	36.095@	45.105	40	45.43	50	34.767
c) Drilling (metre)	62934.73	63,097.45 ©	66,000	70,006.95©	70,000	46706.75©
<b>MISSION-III : GEOINFORMATICS</b>						
(Map, Publication, Information Technology, Core Library etc) (in nos)	30	30	30	30	30	Work initiated for all items.

<b>MISSION-IV : FUNDAMENTAL AND MULTIDISCIPLINARY GEOSCIENCE</b>						
(Geotechnical, Earthquake Geology & Seismology, Geo-environment, Glaciology, Geothermal etc.) (in nos)	92	95 $\mu$	91	89	85	Work initiated for 77 items $\text{\pounds}$
<b>Research &amp; Development</b> Research (No of investigation including Deep Geol., Polar studies)	39	39	36	36	30	33
<b>MISSION-V : TRAINING AND CAPACITY BUILDING</b>						
Training (in GSITI) No of Types (No of courses)	63	87+Orientation Courses	80	100 courses completed and 4 courses continued in FY 2013-14	75	55 courses completed and 3 courses in progress.

\* **Flying Season: normally from October to March**

# Multisensor Survey:

- Navigational system PNAV-2100 broken down during FY 2010-2011
- No Airborne survey conducted in F.Y. 2011-2012 & 2012-13 as Navigational system PNAV -2100 not working.

\$ Sensors under installation to the helicopter

@ Upward revision of target made with the induction of new officers in the Dept.

© Include drilling under M-IV also.  $\mu$  Include additional request items (FS 2010-12)

$\text{\pounds}$  Some items will be initiated on sponsor requirement.

$\Omega$  Flight trials of the Heliborne Survey System with power on for all sensors have been completed. The survey will be taken up after analyzing the quality of data output after the test flight over Aladahalli.  $\pi$  Target as per outcome budget.

**Scheme-Wise Activities and Physical Performance of IBM during Calendar  
Year 2013**

Sl. No.	Name of the Scheme / Programme	Activities	Target for Calendar Year 2013	Achievement During Calendar Year 2013
1	Scheme No. 1: Inspection of Mines for Scientific and Systematic mining, mineral conservation and mines environment.	Promotion of conservation, systematic and sustainable development of mineral resources and protection of mines environment through statutory enforcement as well as through promotional activities by carrying out:  1. Inspection of Mines for enforcement of provision of MCDR, 1988 and examination of MP/MS	2570 Mines	2556 Mines Inspected
		2. RMGS/RMDS Studies	08 Studies	12 RMGS completed & 08 RMDS in progress
		3. Approval of Mining Plans & Scheme of Mining	No. of cases as and when received	152 Mining Plans and 609 Schemes of Mining approved
2	Scheme No. 2: Mineral Beneficiation Studies – utilization of low grade and sub-grade ores and analysis of environmental samples	Upgradation of low grade ores by ore dressing process and suggest ways and means for their economic utilization through : i) Ore Dressing investigations	60	55
		ii) Chemical Analysis	40,000	40,355
		iii) Mineralogical studies	2,300	2399
		iv) In-plant studies	As and when required	9 studies carried out.
3	Scheme No. 3: Technological upgradation and Modernisation	Technological upgradation and modernization through : Technical Consultancy Assignments	5-7 Assignments	3 completed & 4 in progress
		Mining Research	2-4 Assignments	5 completed.
		Training courses	16 courses	20 courses conducted
		Updation of Mineral Maps with forest overlays	100 multi mineral maps will be updated	100 multi mineral maps updated.
		Preparation of NMI An Overview as on 1.4.2010.	Finalization of 70 chapters	Finalized 70 chapters.
		Intermediate Updation of NMI adopting UNFC	Updation of NMI as on 1.4.2013 for 12 minerals	Intermediate Updation is in progress.

<b>Sl. No.</b>	<b>Name of the Scheme / Programme</b>	<b>Objectives</b>	<b>Annual Target</b>	<b>Achievement</b>
4	Scheme No. 4: Collection, processing, dissemination of data on mines and minerals through various publications	Collection, processing, dissemination of data on mines and minerals through: 1. Release of IBM publications	18 Publications will be finalized & brought out	19 Publications released
		2. Advisory role	As & when received	199 PQ & 560 Ministry references have been replied
5	Scheme No. 5: Mining Tenements System	To develop an online National Mineral Information System by linking Central and State organizations engaged in administration of mineral resources in the country.	Preparation & Finalization of DPR, Floating of EOI & RFP, award of work and commencement	DPR prepared, SFC approved & RFP finalized and tender floated.
6	Scheme No. 6: Capacity building of State Government Development & Implementation of Ore Accounting Software	Implementation of Rule 45 of MCDR, 1988 by developing uniform ore accounting software with interface to Railways, Ports, MMTC & DGCI&S and Custom	Preparation & Finalization of DPR, Floating of EOI & RFP, award of work and commencement	NISG has submitted inception report and PoC.