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Statement of Outlays and Outcomes/Targets : Annual Plan 2005-06

(Rs. in Crores)

Sl. No	Name of Scheme/ Programme	Objective/Outcome	Outlay 2005-06	Quantifiable Deliverables	Processes/ Timeliness Annual targets	Remarks/ Risks
1.	GEOLOGICAL SURVEY OF INDIA					
	(i) Survey & Mapping	Creation and updating of national geo-scientific information and knowledge base through ground , marine and airborne surveys. Growing emphasis on concept oriented thematic geological mapping on progressively larger scales, geochemical and geophysical mapping	41.00	i)STM 6000 Sq. Km. (ii)GCM 22000 Sq. Km. (iii) GPM 15000 Sq. Km. (iv) Areal Surv 28000 Km (v)EEZ Bathy. 5000 Km (vi)EEZ Magnetic 4500 lKm (vii) TW Survey 3000+ Sq Km	Continuing item from last financial year 2004-05	There may be short fall under Survey and mapping specifically in marine survey as the research vessel has been out lived its life for which replacement action has been initiated
	(ii) Mineral Exploration	Identification as well as preliminary assessment of the mineral resources, principal thrust being on gold, diamond, base metals, coal, and lignite. Emphasis also remain on ferrous , industrial ,refractory mineral etc. since minerals are non- renewable assets, identification and development of mineral resources has been considered the basic requirement for assured industrial growth of the country.	23.00	(i) LSM 900 sq km (ii) DM 30 sq km (iii) Drilling 85000 m		
	(iii) Specialised Investigations	Miscellaneous civil engineering projects. Geo-environmental investigations for both regional and site specific studies. Greater emphasis	6.00	91 nos.		

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	on natural hazard studies and disaster management including earthquake and landslide zonation studies				
(iv)(a) Other Exploration (Antarctica)	Study of Antarctic glaciology monitoring global climatic changes, fluctuation of shelf ice surface and polar ice margin, glacio-morphological mapping, iceberg monitoring, ice dynamics studies. Present work of GSI in Antarctica focuses to understand the pathogenesis on mineral chemistry, geochemistry and geochronology, deformational history, metamorphism, active crystal deformation uplift faulting and delineation of bedrock / ice and water / ice interface.	9.35	Antarctica : 1000 sq. km.	-	
(iv)(b) Research & Development	Expand the existing laboratory set up to an international -standard and suitable support system to various field investigations. Fulfillment of modernization plan through procurement / installation of sophisticated state-of-the art instrument set ups for induction of new methodologies for various laboratories investigation of the survey.		65 nos.		
(v)Information Dissemination	theme-based relational database. Dissemination of data through maps, publications , customization etc.	22.00	45 nos		
(vi)HRD (Training)	Training in specialized fields for upgradation of technology and expertise. As per recent Expert Committee recommendation GSITI to	3.15	35 types(45 courses)		

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	upgraded to international standards to develop and foster the right kind of professional expertise in earth science in various organization of the country.				
(vii)Modernization and Replacement	Modernization and expansion of laboratories and survey facilities aiming at refurbishing and upgrading the in-house capabilities of GSI with a view to enable to meet new challenges and achieve the goals in the coming decades.	42.00			
2. Total INDIAN BUREAU OF MINES		146.50			
(i) Inspection of mines for scientific and systematic mining, mineral conservation and mines environment	To ensure scientific and systematic and mineral resources. Promotion of conservation of minerals. Protection of sustainable development of mine environment through statutory enforcement of MM(D&R) Act 1957, MCDR 1988 and relevant portions of MCR 1960, by carrying out regular inspections/studies of mines, other than coal, petroleum and natural gas atomic minerals, minor minerals.	4.20	For enforcement of MCDR and approval of Mining plans scheme of mining, 2300 mine will be inspected as per the annual programme 2005-06. The outcome of this scheme is systematic and scientific development of mineral deposits, conservation of minerals protection of environment, and sustain- able closure of mines. For this purpose mining plans, schemes of mining and mine closure plan prepared by lessee are being supported by IBM and are being monitored for their effective implementation.	Inspection of 2300 mines will be completed during the year 2005-06	Fulfillment of the target is subject to the availability of existing strength of inspecting officers. All the activities in IBM

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<p>(ii) Mineral Beneficiation studies utilization of low grade and sub grade ores and analyses of environmental samples</p>	<p>To ensure value addition to the low grade ores, which are otherwise going and wastes and to help directly or indirectly to the mineral industry for optimum exploitation of mineral resources of the country. Further analysis of air, water, solids wastes etc. for monitoring of mine efflu ent parameters are also being carried out.</p>	<p>6.00</p>	<p>The activities under this scheme are carried out in IBMs three laboratories and pilot plant situated at Nagpur, Ajmer and Bangalore In these three laboratories 70 Ore Dressing Investigation 50,000 chemical analysis and 2300 mineralogical examinations will be conducted as per the annual programme 2005-06. Besides this the S&T project on Enhanced Gravity and Magnetic Separation studies for recovery of values from plant tailing and slimes will be continued, characterization and beneficiation studies are conducted on chromite tailing samples from sukinda mines of Orissa Most of the mineral deposits found in nature fall short of the grade required by consuming industries and therefore needs up gradation by ore dressing process to suggest ways and means for their economic utilization as a part of conservation studies.</p>	<p>All these activities will be completed during 2005-06. Further S&T project on enhanced gravity and magnetic separation studies for recovery of values from plant tailing and slimes will be completed during the year.</p>	<p>Fulfillment of the target is subject to the availability of existing strength of inspecting officers. All the activities in IBM. The activities in this scheme are in the nature of promotional , tech. Consultancy and research oriented.</p>
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<p>(iii) Technological up gradation and Modernization</p>	<p>To estimate the national mineral reserves and preparation of Mineral maps with forest overlays to ensure development of new mining methods for scientific and systematic development of mineral resources including environmental management of mines. To develop the Human Resources and infrastructure</p>	<p>4.50</p>	<p>During the year 2005-06 the following activities will be carried out: Updation of NMI as on 1-4-2005 will be completed for 32 minerals and summary out put for 15 minerals will be generated. 100 multi-mineral maps along with forest overlays will be prepared . 18 mining/ geological assignments and 7 environmental/geotechnical assignments will be completed. 16 training courses will be completed Besides above S&T project on attenuation of hexavalent chromium by bio-remedial technology will be continued The outcome of this scheme is to benefit the mineral industry through its scientific, techno economic, research oriented studies and training on various aspects of mining geology ore beneficiation and environment to ensure R&D efforts on sustainable mine development with protection of environment and pollution control. This will update national Mineral Reserve and preparation of mineral maps with forest overlays for their proper exploration& exploitation.</p>	<p>All these activities excepting the S&T project will be completed in 2005-06. The S&T project on ATTENUATION of Hexa valent chromium by bio-remedial technology will be continued during the year and will be completed in the next year.</p>	<p>Under S&T scheme repeated cultivation of crop is required for tests on attenuation of hexavalent chromium. Risks are as of occurrence of natural calamities. Completion of multiminerall maps along with forest overlays is subject to timely availability of forest maps from FSI. Activities under this scheme are in the nature of promotional, tech.consultancy and research oriented and on human resource development. Incidentally some revenue is also generated and therefore the total out come can not be quantified in terms of money value.</p>
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<p>(iv) Collection, processing, dissemination of data of mines and mineral through various publications</p>	<p>To collect the data of mines and minerals through statutory returns and other means with a view to process analyses and disseminate the data through various statistical and technical publications.</p>	<p>1.85</p>	<p>During the year the following publications will be released 12 issues of Monthly Statistics of mineral production, Indian Mineral Industry at a Glance, Statistical profiles of mineral. 2 issues of Bulletin of mineral information, Bulletin on mining leases , PL & RPs directory of mines and mining leases as on 31.3.2005, Indian Mineral Book 2004. Market survey on Marble / flaggy limestone slate , digest of mineral Laws of India , Directory of Mineral Consumer of India Comparatives studies of Mining Law of India and 6 selected countries monograph on chromiite, Bulletins on abrasives of India environmental aspects of mining recent development in Blasting technology application of rock mechanics. The outcome of this scheme is to create data base on mines and minerals . This will very much useful for planning and taking policy decision by the Government and mineral industry. The entire mining industry and concerned governments look to IBM as the agency for providing information on mining and minerals and has been recognized as one of the sub system of National Information System of Science and Technology. (NISSAT)</p>		<p>IBM collects data from like state Govts, DGCI& S, Coal controller, Kolkata, Ministry of Petroleum & Natural Gas, Ministry of Commerce and Industry, and Ministry of Steel, DGMS, etc., Therefore the publication are subject to timely receipt of data. The activities under this scheme are mainly service nature. Incidentally some revenue is also generated and therefore the total out come can not be quantified in terms of money value</p>
<p>(v) Provision for NER etc.</p>	<p>Development of mineral sector in NER</p>	<p>1.95</p>	<p>-</p>	<p>-</p>	<p>--</p>
<p>Total</p>		<p>18.50</p>			

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3.	S&T	Research & Development work on mining & metals	7.43	Projects catering to the national requirements and for building the capabilities and strengths of the mineral & non-ferrous metals	Continuous nature of research work	
4.	Construction	Indian Bureau of Mines & Geological Survey of India	6.00	Building construction in IBM & GSI	-	
	Total		13.43			
4.	Hindustan Copper Limited					
	(i) Replacement & Renewals	To maintain the existing plant and machineries for optimization of production	40.00	-	-	
	Total		40.00			
5.	Mineral Exploration Corporation Ltd.					
	(i) Promotional , Exploration on the behalf of the Ministry of Mines	Detailed mineral exploration of projects approved by standing committee on promotional Projects (SCPP)	11.00	Exploration reports. As on date exploration of 7 projects are in progress.	As on date all the projects are on the progress as per time schedule.	1)The entire outlay is likely to be utilized during the year. 2) Two projects namely Maruda Gold at Kerala & Dolamala copper could not commence for want of forest clearance.
	(ii) Capital	For replacement of old critical capital equipments and accessories.	5.00 a) Equity Rs. 1.00 crore b) IEBR 4 crore	Replacement of old critical equipment / Accessories	Expected to be procured before 31 st March, 2006	
	Total		16.00			

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6.	National Aluminium Company Ltd.				
A.1	(i) Special Grade Alumina & Zeolite	Installation of capacity to produce 26,000 MT of special Grade alumina/Hydrate and 10,000 MT of Zeolite.	1.26	Spl. Gr. Alumina/Hydrate: 10000 MT Zeolite: 9000 MT	Special Hydrate portion commissioned in March 2004. The balance portion of the project to produce special grade alumina will be commissioned during the current year.
	(ii) Equity Participation in IAPL (Rolled Product Unit)	Installation of Rolled product unit for manufacture of 50000 MT of rolled products.	16.91	Rolled product Production : 10,000 MT capacity 50,000 MT	As committed to the GOI the mechanical completion of all the segments of the projects is expected in July 2005. It will take some time before product is well established in domestic and thereafter in international market. A production target of 5000 MT has been kept for the year.
		Total	18.17		

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A2	Critical ongoing schemes		9.18	Bauxite : 4800000 MT Alumina : 1575000 MT	Mines commissioned in Dec., 1999. Alumina: Debottlenecking commissioned on 1st July, 2001 10th March, 2002	
(i) Phase I expansion Mines and Refinery	Increase in capacity of bauxite mines from 24,00,000 MT to 48,00,000 MT and alumina Refinery from 8,00,000 MT to 15,75,000 MT.	40.27	Aluminum 345000 MT	120 Pots commissioned in Jan. 2003 and balance 120 pots in August 2004. CPP 7th Unit commissioned on 1st March, 2003.		
(ii) Phase I Expansion : Smelter and CPP	Increase in capacity of smelter plant from 2,30,000 MT to 3,45,000 MT and of CPP from 720 MW (120 MW X 6) to 840 MW (120 MW x7)	11.81	Power : for all the eight units including the seventh unit covered under smelter and CPP expansion Power 5800 MLn Kwh (sufficient to meet captive requirement)	CPP 8th commissioned on 1st May, 2004.		
	Total	61.26				

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B. Schemes Aimed at Maximising Benefits					
Additions/ Modifications Renewals Replacements (AMR)	To maintain the production/productivity in different segments of the company	75.00			
C. New Schemes					
Phase II (i) Expansion (i) Alumina – 4 th Steam (ii) Aluminum 4 th Pot Line (iii) VIII Unit of CPP	Increase in capacity Bauxite mines 48,00,000 MT to 63,00,000 MT Alumina Refinery 15,75,000 MT to 21,00,000 MT Smelter 3,45,000 MT to 4,60,000 MT CPP 960 MW (120 MW x 8) to 1200 MW (120 MWx10)	290.28	The project activities have since commenced after receipt of GOI approval on 26.10.2004. The requisite consultancy contracts awarded and major MRs/Technical specifications drawn	Schedule start up date from Zero date (26.10.2004) Bauxite Mines 42 months Al. refinery 46 months Smelter 50 months CPP 47 months	
(iv) Equity participation of Qatar Project	Exploration of equity participation in overseas smelter project for utilization of company's surplus alumina.	1.00	An adhoc provision has been made. A high level delegation went to middle East to explore possibilities of utilizing company's surplus alumina. A final decision is yet to be taken.	-	

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(v) Utkal E coal	Allotment of a new captive coal mine by government of India to cater to coal requirement of 9 th , 10 th , 11 th 12 th units of CPP.	5.00	Pre project activities such as DFR, environment clearance, mining lease forest clearance etc. have been taken up for approval by the respective Government agencies before final investment decision is taken.	The completion schedule depends on the final capacity determination and investment decision.	
	Sub total	296.28			
	Total	450.71			
	Grand Total	685.14			