

**MINUTES OF THE 58th MEETING OF THE
CENTRAL GEOLOGICAL PROGRAMMING BOARD**

**A. P. Shinde Symposium Hall, Indian Council of Agricultural Research,
NASC Complex, Pusa, New Delhi**

(15th February 2019)

58.01.00	The 58 th meeting of the Central Geological Programming Board (CGPB) was held on 15 th February, 2019 at A.P. Shinde Symposium Hall, Indian Council of Agricultural Research (ICAR), NASC Complex, Pusa, New Delhi. The list of participants is given at Annexure-I .
58.01.01	Shri Haribhai Parthibhai Chaudhary, Hon'ble Minister of State (Mines) graced the occasion as chief guest and inaugurated an exhibition displaying " <i>Mineral Exploration in India</i> " in the presence of Shri Anil Mukim, IAS, Secretary, Mines & Chairmain CGPB, Dr. Dinesh Gupta, Director General, Geological Survey of India (GSI), Dr. K. Rajeswara Rao, IAS, Additional Secretary, Mines, Shri R. S. Garkhal, Additional Director General (PSS), Shri D. Mohan Raj, Additional Director General & National Mission Head II, GSI and other senior officers of GSI and delegates of the 58 th CGPB Meeting. Apart from GSI, four other organisations, viz. National Mineral Exploration Trust (NMET), Hindustan Zinc Limited (HZL), Mineral Exploration Corporation Limited (MECL) and Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARDDC) for the first time actively participated in the exhibition to display their recent geoscientific activities and achievement in exploration and mining sectors throughout the country.
INAUGURAL SESSION	
Welcome address by Dr. Dinesh Gupta, Director General, GSI	
58.02.00	Dr. Dinesh Gupta, Director General, GSI extended a hearty welcome to Shri Haribhai Parthibhai Chaudhary, Hon'ble Minister of State (Mines); Shri Anil Mukim, IAS, Secretary, Mines; Dr. K. Rajeswara Rao, IAS, Additional Secretary, Mines; Shri R. S. Garkhal, Additional Director General, GSI; Shri Bipul Pathak, IAS, Joint Secretary, Mines, delegates and participants of the Central Ministries / organizations, PSUs, State Departments, academic institutions, private entrepreneurs and media to the 58 th meeting of the Central Geological Programming Board (CGPB) which is held annually for adoption of field season programmes (FSP) of GSI and to discuss future mineral exploration strategy, geoscience programmes and inter-organisational coordination.
Presentation on "Highlights of GSI initiatives" by Director General, GSI	
58.02.01	Director General, GSI presented " <i>Highlights of GSI initiatives</i> " and conveyed the following: (1) Visions of GSI are to develop into a world class institution for fundamental and applied geosciences, to create a close-knit national geoscientific community through leadership and collaborative partnerships, to acquire and provide

expertise, and widely disseminate geoscientific information to facilitate decision-making by policy makers and stake-holders and enable use of geoscientific data for sustainable socio-economic development.

(2) Data Sharing and Accessibility Policy (DSAP), GSI, 2019 has been notified where dissemination of geoscientific baseline data (geological, geochemical and geophysical) will be done from its web portal with effect from 1st March, 2019. This dissemination of data follows the guidelines of Ministry of Defence (MoD).

(3) Data acquisition in 2nd round of Multi-sensor National Aero-geophysical Mapping Programme is to be initiated in four prioritized block over the *Obvious Geological Potential* (OGP) areas for search of deep-seated mineral deposits. Data acquisition over the four blocks taken up in the 1st round is nearing completion, covering 6 lakh line kilometers in the states of Rajasthan, Gujarat, Madhya Pradesh, Uttar Pradesh, Chhattisgarh and Maharashtra. This data shall be available in public domain by May, 2019.

(4) In view of the rapid depletion of surface/near-surface deposits, there is a paradigm shift in thrust to probe deep-seated deposits under Project UNCOVER, in collaboration with Geoscience Australia in the Aravalli & Bundelkhand Cratons and Western & Eastern Dharwar Cratons. Further, blocks have been prioritised for Deep Seismic Reflection (DSRS) and Magnetotelluric (MT) survey in collaboration with ONGC and IIT (ISM), Dhanbad. Fast track upgradation of exploration stages viz. G4 to G3 and G3 to G2 for various mineral commodities viz. manganese, vanadium, gold, base metal, PGE etc. have been taken up by GSI to accelerate mineral exploration activities.

(5) GSI has identified mineralised zones for vanadium in Arunachal Pradesh; potash and phosphate rich zones in Jharkhand and REE in Rajasthan. Through its continual effort, GSI has augmented mineral resources worth Rs. 79,560 crores in the national exchequer during 2017-18. Resource Bearing G2 & G3 stages Mineral Exploration Reports are handed over to State DGMs for auction.

(6) Besides fundamental research on intricate problems of geosciences, GSI is involved in several societal projects on landslides and earthquake hazard studies. Landslide Early Warning System in Giddapahar, Darjeeling and post disaster studies of Landslides in Kerala and Karnataka were taken up during the ongoing field season. By March 2019, an area of 3.22 lakh sq km will be covered by National Landslide Susceptibility Mapping (NLSM) programme. Further, GSI has installed 20 permanent GPS stations in India to understand the crustal dynamics and providing high precision base station co-ordinates for other mapping activities. 10 broadband seismographs and accelerographs have been established for real time earthquake monitoring.

(7) As a measure towards capacity building and sharing of expertise, GSI has developed its unique outreach and collaborative programmes. MoU has been signed with IIT, Hyderabad (IIT-H) and IIT (ISM), Dhanbad that envisages capacity building and collaborative research leading to Ph.D. degree. MoU with Banaras Hindu University (BHU) is also being finalized.

(8) GSI has launched *100 x100 VAQ Model programme* for enhancing Visibility, increasing Activities and enriching Quality of GSI activities. Bhuvismvad, a unique

	<p>platform under MoM was launched, facilitating interaction of geoscientists from GSI with the students from different universities/colleges.</p> <p>(9) GSI has also signed MoU with National Council of Science Museums (NCSM), Ministry of Culture, Govt. of India for taking up the work for designing, development, fabrication, installation and commissioning of Gwalior Geoscience Museum at Gwalior in Madhya Pradesh.</p>
<p>Presentation on “Brief Overview of CGPB and FSP 2019-20” by R.S. Garkhal, ADG (PSS), GSI & Member Secretary, CGPB</p>	
<p>58.02.02</p>	<p>Shri R.S. Garkhal, Additional Director General (PSS), GSI & Member Secretary, CGPB presented “Brief Overview of CGPB & FSP 2019-20”. He gave a brief history of CGPB and its reconstitution and its activities.</p> <p>He informed that the Annual Programme of GSI for FS 2019-20 has been drawn keeping in view the stated policies of the Central Government and the requirement of the States as proposed in SGPB meetings. He highlighted the following points:</p> <ul style="list-style-type: none"> • All the programmes of GSI for FS 2019-20 have been internally peer reviewed and 20% randomly selected programs have been externally peer reviewed. • A total of about 900 standard items will be taken up in FS 2019-20. • GSI has oriented its Baseline Geoscientific Data Generation (Mission-I) by doing STM, NGCM, NGPM with special emphasis to cover the Obvious Geological Potential (OGP) areas. The geochemical dataset with other complementary geological and geophysical datasets will be useful to identify mineral potential zones for further exploration. Under Mission-I, 167 programmes are included. • Mineral investigation programmes for 2019-20 on different commodities with G4, G3 and G2 stages are formulated with an aim to generate potential auctionable mineral blocks. • A total of 390 items are included under Mineral Exploration of which 333 are under Mission–IIA (Mineral Resource Assessment), 21 pertain to coal and lignite, 4 are under Geothermal, 13 are under R & D related to exploration including Project UNCOVER& Regional Mineral Targeting, and 19 others. • With the thrust to probe deep-seated deposits, Project UNCOVER in collaboration with Geoscience Australia will be in full swing during FS 2019-20. • Regional Mineral Targeting programme by integration of all baseline data of ground survey and aerial survey in GIS platform for prognosticating newer areas for mineral exploration will continue this year. • During F.S. 2019-20, 66 mineral exploration programmes are being taken up which are spinoffs from STM, NGCM, NGPM and RMT items.

	<ul style="list-style-type: none"> • Under Geoinformatics (Mission –III) a total of 49 items are proposed to be taken up during 2019-20. • A total of 172 items are being taken up under Fundamental and Multidisciplinary Geosciences (Mission –IV) during FS 2019-20. • National Landslide Susceptibility Mapping (NLSM) will continue throughout landslide prone priority areas of India to mitigate the societal issues. • GSI Training Institute will conduct courses on various themes for capacity building in the earth science domain as per changing operational needs of GSI as well as for participants from other institutes of India and abroad. • A total of 119 items of Training and Capacity Building are proposed to be taken up in 2019-20 which include 2 international courses, 90 thematic courses, 6 Orientation courses and 21 administrative courses.
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Address by Shri Anil Mukim, Secretary (Mines) & Chairman, CGPB

<p>58.02.03</p>	<p>The Secretary, Mines began his address by highlighting the role of CGPB as a mechanism for developing synergy between the States and Centre. Similarly, SGPB meetings are assigned due importance in identifying the needs of the states. He emphasized the critical role of mining sector in economic development and attracting investment. Further, he stated that the policy reforms introduced in mining sector in recent years have enhanced mineral exploration activities in the country with a transparent, accountable system of awarding of mining leases. He stressed that the exploration, exploitation and management of minerals need to be guided by the national goals and mining has to be carried out in an environmentally sustainable manner. The regulatory system in mining has to ensure ease of doing business and obtaining clearances has to be simple and time bound. The National Mineral Exploration Policy (NMEP) 2018 is expected to boost private sector participation in mineral sector. Another significant step for promoting private sector participation and capacity building of state and central agencies is creation of National Mineral Exploration Trust (NMET).</p> <p>Owing to depletion of near surface mineral resources, search for deep seated and concealed resources is essential. GSI has taken up Project UNCOVER in collaboration with Geoscience Australia; the data generated will be available in public domain. In addition, GSI has put huge amount of data in its portal and the National Aerogeophysical Mapping program of GSI is taking appropriate shape.</p> <p>Secretary, Mines appreciated the innovative initiative taken for enhancing the Visibility, Activity and Quality of work in GSI under the guidance of the Additional Secretary, Mines and stated that the exercise will bring tangible results very soon. He announced that during the field season 2019-20, GSI will double its quantum of activities in the field of mineral exploration which will lead to availability of more number of auctionable mineral blocks.</p> <p>Secretary, Mines concluded his address by stressing on the need to intensify the</p>
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	consultative activities of CGPB and SGPBs at various levels and urged all to utilise CGPB platform for enhancement of geoscientific activities in the country.
Release of Publications	
58.02.04	<p>Following publications were released on the occasion:</p> <ol style="list-style-type: none"> 1) Lignite Atlas of India, (2019) by <i>NLC India Limited</i> 2) GSI Bulletin Series 'A', No. 45, Vol: VI, (2019), Geology and Coking Coal Resources of Jharia Coalfield, Dhanbad and Bokaro Districts, Jharkhand. (ISSN: 0536-8782) 3) GSI Bulletin Series 'B', No. 71, (2019), A Comprehensive Report on Pre-construction and Construction Stage Geotechnical Investigation of Maneri-Bhali Hydroelectric Project, Stage-II, Uttarakhand. (ISSN: 0445-622X) 4) Records of Geological Survey of India, (2019), Annual Report 2017-18, Vol. 152, Part 9. (ISSN: 0370-5226) 5) Coal Mining Governance and Coalfields of Chhattisgarh, (2019) by <i>Directorate of Geology and Mining, Chhattisgarh. (ISBN: 9788170750963)</i> 6) Glimpses of the Mineral Exploration activities in Madhya Pradesh by Geological Survey of India since 1990: Findings and Recommendations 7) <i>GSI Coffee Table Book on Graphites of Madhya Pradesh, (2019)</i>
Handing over of Mineral Exploration Reports (G2 & G3 level) to State Governments	
58.02.05	<p>Twenty (20) Mineral Exploration reports, worth about Rs. 80,000 crore as per the 15.02.2019 market dynamics, were handed over to 7 state governments i.e., Odisha, Rajasthan, Madhya Pradesh, Chhattisgarh, Haryana, Karnataka and Kerala.</p> <p>The break-up is as follows:</p> <p>Four (4) G2 stage reports (Iron – 3, Manganese – 1) were handed over to Govt. of Odisha.</p> <p>Four (4) G2 stage reports (Copper & associated metals – 3, Basemetals – 1) were handed over to Govt. of Rajasthan.</p> <p>Five (5) G2 & G3 stage reports (Iron – 2, Zinc – 1, Graphite – 1, Gold – 1) were handed over to Govt. of Madhya Pradesh.</p> <p>Two (2) G2 stage reports (Bauxite – 1, Limestone – 1) were handed over to Govt. of Chhattisgarh.</p> <p>Two (2) G2 stage reports (Limestone – 2) were handed over to Govt. of Karnataka.</p> <p>One (1) G2 stage report (Bauxite – 1) was handed over to Govt. of Kerala.</p> <p>Two (2) G2 stage reports (Copper – 2) were handed over to Govt. of Haryana.</p>

Address by Shri Haribhai Parthibhai Chaudhary, Hon'ble Minister of State for Mines	
58.02.06	In his inaugural address, Shri Haribhai Parthibhai Chaudhary, Hon'ble Minister of State for Mines expressed his pleasure in attending the 58 th meeting of CGPB held for finalising the geoscientific activities of GSI and hoped that the deliberations in the meeting will bring out an actionable work plan to provide impetus to mineral exploration activities in the country. Invoking the vision of Hon'ble Prime Minister of India to introduce more efficiency and transparency in the mining sector for the ease of doing business, he stated that several important reforms have been introduced by the Government of India. In this direction, National Mineral Exploration Trust (NMET) has been established for promoting mineral exploration activities in the country for extending support to the states and exploration agencies. This has also helped in assessment of geological potential of minerals and auctioning of mineral blocks. Ministry of Mines is also taking initiative for inclusion of private exploration agencies in exploration. The Hon'ble Minister appreciated the work being carried out by GSI in exploration of deep seated mineral resources. Collaboration with other countries, exchange of technical expertise, use of satellites data are being promoted by the Ministry of Mines which will prove to be milestones for mineral exploration in the country. The Government of India has taken adequate steps to ensure availability and exchange of data and maps to the stakeholders; the information being made available on GSI portal is a major step in this direction. The Hon'ble Minister appealed the states to make best use of the resources provided by the central government for effective mineral exploration in the country. He invited one and all to make concerted efforts for increasing the contribution of mining sector to the GDP of the nation. The Hon'ble Minister invoked the gathering to inculcate a sense of national pride especially, among the younger generation.
Vote of thanks	
58.02.07	The vote of thanks for the Inaugural Session was proposed by Shri M. Chandra Das, Dy. DG, GSI, New Delhi.
PLENARY SESSION-I	
Approval of the Minutes of 57th CGPB	
58.03.01	Minutes of the 57 th CGPB meeting held on 16 th February, 2018 was placed by Shri R.S. Garkhal, ADG (PSS) & Member Secretary, CGPB and was unanimously approved by the House.
Review of Follow-up Action on Minutes of 57th CGPB Meeting by Member Secretary, CGPB	
58.04.01	Regarding assistance to be provided for preparation of proposal towards detailed exploration for coal occurrences in Arunachal Pradesh (Para 57.04.03) DGM, Arunachal Pradesh has informed that a joint field survey was undertaken

	<p>with MECL and it has requested MECL to provide final accessibility & feasibility report for detail exploration of coal in the state.</p> <p>In response, MECL apprised the House that –</p> <p>(i) In Thalatt Block, only 6-8 boreholes can be drilled in G-4 stage and this area is accessible only in dry season. Local law & order problem prevails in the block.</p> <p>(ii) In Jairampur Block, major portion is occupied by the Assam Rifles Army Camp and the remaining part is covered under dense forest. It is not possible to take up exploration work in the block.</p> <p>(iii) Pinjoli River Block is mostly in hilly terrain and reserve forest and in the flat portion of the block there is army base. The block is not suitable for any level of exploration.</p> <p>CGPB Secretariat approached MECL for the report and MECL stated that the same will be handed over to DGM, Arunachal Pradesh.</p> <p style="text-align: right;">(Action: MECL)</p> <p>In this regard, CMPDIL supplemented that a tender floated for outsourcing detailed coal exploration in Namchik East & Namchik West in Arunachal Pradesh was cancelled due to insufficient participation. The block was retendered on 06.09.2018. The bid was opened on 22.10.2018, and Tender committee recommendation is awaited for awarding the work order.</p> <p style="text-align: right;">(Action: CMPDIL)</p>
<p>58.04.02</p>	<p>Regarding Para: 57.04.04</p> <p>AS (Mines) emphasized to have close interaction/frequent meetings among state DGM/DMG with state PCCF, Principal Secretary / Chief Secretary to sort out the forest clearance and EC.</p> <p>DG (O), Odisha stated that it executes its exploration programmes in close coordination with the Principal Secretary, S & M Department.</p> <p>DMG, Andhra Pradesh mentioned that it submitted the proposals to the Govt. of Andhra Pradesh to organize a meeting with the Secretary (Mines) Government of Andhra Pradesh, the PCCF, Govt. of A.P; GSI, State Unit; Andhra Pradesh and Director of Mines and Geology to resolve the forest issues.</p> <p>DMM, West Bengal stated that the matter has already been considered for having close interaction/ frequent meetings with PCCF to sort out the Forest Clearance/ EC, as required. PCCF, West Bengal is a long-time Member of SGPB, West Bengal.</p>
<p>58.04.03</p>	<p>Regarding sharing of aero-geophysical data by other organizations with GSI (Para 57.04.05)</p> <p>AMD expressed that Airborne radiometric and magnetic data available with AMD can be shared as per the guidelines of MoD. But there is no mention of heliborne EM data in MoD guidelines and no heliborne gravity data is available with AMD.</p>

	<p>GSI responded that the heliborne EM data of AMD can be used by GSI. So modification in MoD guidelines regarding EM data is required for sharing. A Committee has been constituted in RSAS, GSI as per the decision in 14th meeting of CGPB committee-VII to propose modification to the MoD guidelines regarding EM data format to be shared among different stakeholders.</p> <p style="text-align: right;">(Action: DDG & HOD,RSAS)</p> <p>In a meeting at Principal Scientific Advisor (PSA) office, DG, GSI had raised the issue with Director, AMD and as per discussion, GSI once again sent a request letter for sharing of digital as well as processed airborne EM and magnetic data with GSI for internal use in regards to Rajasthan state and the reply is awaited. DG, GSI reiterated that sharing of available aerogeophysical data is very much necessary to avoid duplication of work in the same area by various agencies.</p> <p style="text-align: right;">(Action: AMD)</p> <p>GSI apprised the house that it has received data from HZL and the data will be processed shortly. GSI also stated that regarding data from DMG, Rajasthan, magnetic data acquired by M/s. Anglo American flown over Khamor, Sameliya areas of Rajasthan in grid was received which is useful and is being processed. But the data of remaining part have no details of coordinates, scale, legend, title, color bar etc. and hence cannot be reinterpreted. Magnetic data acquired by M/s. ACC Rio Tinto pertaining to 4 blocks (KH-11, KH-17, KH-23, KH24-Sikar district, Rajasthan) was also received by GSI in the form of Geosoft database which is useful and is being processed. Tiff and jpg format files have no details of coordinates, scale, legend, title, color bar etc. and hence the data is not useful.</p>
<p>58.04.04</p>	<p>Regarding preparation of a database of studies on landslide in Sikkim (Para 57.04.07)</p> <p>DMG, Sikkim informed that one DPR on Mangan area has been prepared in collaboration with Sikkim State Disaster Management Authority (SSDMA) and submitted to NDMA.</p> <p>NDMA responded that DPR of Mangan is recommended by Technical Evaluation Committee (TEC) of NDMA for financial support. An SFC proposal has been submitted to MHA on 03.08.2018 for approval of funding support by NDMA.</p> <p style="text-align: right;">(Action: NDMA)</p>
<p>58.04.05</p>	<p>Regarding sharing of exploration data and creation of exploration data bank for the State of Rajasthan (Para 57.04.08)</p> <p>DGM, Rajasthan conveyed that digitisation of their exploration reports is under process, but raised concern citing their lack of expertise in digitisation and budgetary issues. They are pursuing the matter with the Govt. of Rajasthan.</p> <p>Director (Tech), MoM mentioned that the issue of budget constraint can be resolved if the digitisation is considered for funding by NMET.</p>

	<p>Additional Secretary, Mines opined that MoM will formally take up this issue with the Govt. of Rajasthan.</p> <p style="text-align: right;">(Action: NMET Secretariat/ DGM, Rajasthan)</p>
58.04.06	<p>Regarding Resource estimation for Iron Ore deposits in Bonai region, Jharkhand & Odisha (Para 57.04.13)</p> <p style="text-align: right;">(Suggestion: Tata Steel)</p> <p>It was suggested to have collaboration between GSITI, Hyderabad and Resource Estimation Division of Tata Steel for 3D modelling and resource estimation by statistical approach.</p> <p>It was informed that a meeting between GSITI and Tata Steel was held on 04.01.2019 where various aspects of formulating such training programme and mutual sharing of expertise were discussed.</p> <p>DG, GSI requested Dy. DG & HoD, GSITI to expedite and complete the process by obtaining a concrete proposal from Tata Steel by 28.02.2019.</p> <p style="text-align: right;">(Action: GSITI, Tata Steel)</p>
58.04.07	<p>Regarding Proposal for GSI to enter into an MoU with KIOCL, for carrying out exploration work at the earliest (Para 57.04.14)</p> <p style="text-align: right;">(Suggestion: KIOCL)</p> <p>GSI apprised the house that a Committee was constituted by DG, GSI, involving ADG (Finance) as Chairman to explore the possibility of outsourcing of works to KIOCL on nomination basis. Information on the in-house drilling and chemical analyses capacity of KIOCL has been sought. Response received from KIOCL indicates that they have analytical capability of approx. 500 samples/month for iron ore, limestone and coal. However, NGCM packages cannot be analysed by KIOCL. Hence, GSI may send the iron ore, limestone and coal samples to KIOCL, if required. GSI added that since KIOCL itself is doing drilling through outsourcing, GSI cannot offer drilling jobs to KIOCL.</p>
58.04.08	<p>Regarding Proposal for inclusion of Industrial non-metallic minerals like quartz, feldspar, pegmatite, calcite and dunite in the category of major minerals (Para 57.04.15)</p> <p style="text-align: right;">(Suggestion: DGM, Tamil Nadu)</p> <p>It was requested by DGM, Tamil Nadu and they expressed that there are a lot of obligations in respect of minor minerals like dunite and calcite. DGM, Tamil Nadu added that all the applications are kept pending and sought guidance in the regard.</p> <p>IBM informed that the issue involves policy decision requiring approval by the Ministry of Mines (MoM).</p> <p>MoM responded that as informed by IBM, the issue involves policy decision which is being taken up with the Ministry separately.</p>
58.04.09	<p>MECL is carrying out exploration for three molybdenum blocks in Tamil Nadu. MECL informed that the reports were likely to be submitted in</p>

	<p>January 2017 to facilitate auctioning of blocks by the State Government. MECL is requested to provide necessary assistance for demarcating the blocks with the State Government (Para 57.04.16)</p> <p style="text-align: right;">(Suggestion: DGM, Tamil Nadu)</p> <p>DGM, Tamil Nadu has informed that demarcation of one block has already been completed and ready for auctioning. Regarding another two blocks, demarcation is under progress and Govt. of Tamil Nadu is planning for auctioning three blocks by this year. Hence, DGM, Tamil Nadu requested IBM regarding finalization of the price and royalty for Molybdenum ore.</p> <p>MECL responded that all the three Reports on Molybdenum have been submitted to the state.</p> <p>IBM expressed that –</p> <ol style="list-style-type: none"> 1) Ministry of Mines has already constituted a study group on revision of rates of royalty and dead rent for minerals (other than coal, lignite, sand for stowing and minor minerals). 2) The process of prescribing/computing methodology to determine the Average Sale Price of Molybdenum is under finalization. <p>DG, GSI requested IBM to expedite the process.</p> <p style="text-align: right;">(Action: IBM)</p>
58.04.10	<p>Request by Telangana for taking up blocks on REE/RM, diamond, base metals, PGE/chromite under NMET funds (Para 57.04.18)</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>It was suggested by the Secretary, Mines that for preparation of proposal for all State DGMs/DMGs, MoM has empanelled MECL, NMDC and KIOCL at a fixed cost on 18.01.2018. State DGM/DMGs can utilize their service for the preparation of project proposals.</p> <p>MECL expressed that they are ready for preparation of exploration proposals.</p> <p>DMG, Telangana informed that they are discussing it with MECL and a nodal officer from DMG was appointed for preparation of the project proposal for taking up exploration for REE, RM, diamond, basemetal, PGE, chromite under NMET fund. The proposal will be finalized shortly.</p>
58.04.11	<p>Collaborative Investigation work for Beach sand minerals to be undertaken with GSI, SU: Tamil Nadu (Para 57.04.20)</p> <p style="text-align: right;">(Suggestion: DGM, Tamil Nadu)</p> <p>DGM, Tamil Nadu apprised the house that in the State of Tamil Nadu, beach sand mineral cases are pending before the Hon'ble High Court of Madras. Since the matter is subjudice, any collaborative work of investigation of beach sand mineral at present could not be suggested.</p>
58.04.12	<p>Issues related to GSI Publication:(i) Status of publication of Volumes of</p>

	<p>'Manual of Geology of India' (ii) Write up on Jharia Coalfield (Para 57.04.22) (Suggestion: MGMI)</p> <p>GSI responded that –</p> <p>i) The publication “A <i>Manual of Geology of India</i> – 4th Edition, Volume I: Precambrian Geology of India, Part-II: Central part of the Peninsula” is expected to be released by July, 2019.</p> <p>(Action: ADG & Head-III, GSI)</p> <p>ii) Publication entitled “<i>Geology and coking coal resources of Jharia coalfield, Dhanbad and Bokaro districts, Jharkhand</i>” has been released on 15.02.2019.</p>
<p>58.04.13</p>	<p>Collaboration between GSI and CGWB for capacity building of CGWB in processing and interpretation of aerogeophysical data (Electromagnetic, Gravity etc.) for ground water studies. (Suggestion: CGWB)</p> <p>In this Context, CGWB replied that they have already shared the data with GSI including Electromagnetic data.</p> <p>Director (Tech.), Mines mentioned that as CGWB has shared EM, AMD can consider sharing the EM data available with them with GSI. AMD responded that they are taking up the matter with the higher authorities in the department. In this regard, DG, GSI has clarified that there is no restriction from MoD for sharing the EM data and the matter may be expedited for obtaining the data from AMD.</p> <p>(Action: AMD)</p> <p>On Capacity building of CGWB, DG, GSI replied that more training courses will be organized by GSITI, once the nominations received from CGWB.</p>
<p>58.04.14</p>	<p>1. Clarification regarding grid spacing of boreholes in different stages of exploration (Ref. Part-III) of Minerals (Evidence of Mineral Content) Rules, 2015: whether prescribed grid spacing is applicable both for mineralized as well as non-mineralized areas, particularly in G2 & G1 level of exploration (Para 57.06.01) (Suggestion: Tata Steel)</p> <p>IBM commented that as prescribed in sub rule 4 of rule 12 of MCDR, 2017, G1 level of exploration is required over the entire potentially mineralized area. Therefore, no exploration in terms of drilling is required to be taken up in the non-mineralized area. However, the non-mineralized area is to be clearly delineated through geological & structural mapping and through other techniques such as geophysical studies.</p> <p>2. Providing guideline for determination of bulk density of rocks (core/chips)</p>

	<p>during prospecting/exploration (Para 57.06.01)</p> <p style="text-align: right;">(Suggestion: Tata Steel)</p> <p>A committee was constituted by the Controller General, IBM on 25.04.2018 with the members from IBM, GSI, MECL, NMDC & Tata Steel Ltd. The SOP for determination of bulk density has been finalised by the committee. Committee has submitted its report to CGPB Secretariat.</p> <p>Tata Steel replied and stated that they are working with GSI, IBM and MECL and other organisation for determination of bulk density. In continuation to this IBM also replied that the report has been submitted for processing to the CGPB Secretariat.</p> <p>Additional Secretary, Mines suggested IBM to process the report and if any changes are required in the guidelines, a proposal may be put forth accordingly.</p> <p style="text-align: right;">(Action: IBM)</p>
58.04.15	<p>1. Sharing of Mineral Investigation report of beach sand minerals by AMD with State.</p> <p>2. Clarification regarding reserving beach sand deposits below threshold value for mining by PSUs. (Para 57.06.04)</p> <p style="text-align: right;">(Suggestion: DMG, Kerala)</p> <p>AMD apprised the house that the officials of AMD and DGM, Kerala held meetings to discuss the modalities for sharing data. The state of Kerala has 35 BSM deposits, of which 17 falls in the category of below threshold monazite value. 13 Reports have been handed over to DGM, Kerala.</p>
58.04.16	<p>Search for Gold and associated minerals in Deccan Traps formation in Western parts of Telangana State (Para 57.06.07)</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>GSI informed that Reports pertaining to the area covering Deccan trap in Telangana re-examined and there is no significant value on gold. DG, GSI suggested ADG & HoD, GSI, SR to communicate the same to DMG, Telangana.</p> <p>Geo-thermal energy prospects around Manuguru area, Kothagudem District (Para 57.06.07)</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>DMG, Telangana requested GSI to provide the report on “<i>Geothermal Energy Prospects around Manuguru area, Kothagudem District</i>”.</p> <p>GSI stated that the report cannot be made available at this stage as it is a 2-year programme and would be completed in 2019. Report will be made available after 30.09.2019.</p>
58.04.17	<p>Relaxation in Forest Clearance (Para 57.06.10)</p> <p style="text-align: right;">(Suggestion: Department of Industry, Mines and Geology, Jharkhand)</p>

	<p>MoEFCC apprised the house that vide its letter no. 5-3/2007-FC dated 24th December, 2018 has issued guidelines for stipulating the norms for Survey and Investigation (Prospecting of ores) on forest land. The said guideline has been placed on the website of the Ministry (www.forestclearance.nic.in).</p>
58.04.18	<p>CMPDI has submitted 101 applications for taking up detailed coal exploration in blocks covered by forest area. However, till date no forest clearance has been granted (Para 57.06.11)</p> <p style="text-align: right;">(Suggestion: CMPDI)</p> <p>CMPDI stated that in many blocks exploration in non-forest areas has been completed but the work could not be carried out in the forest area due to non-availability of forest permission. Delay in forest clearance will lead to premature closure of projects and preparation of Geological Reports leaving the coal resources of forest area inadequately explored. Hence, the exploration of block will remain in 'Regional' instead of 'Detailed (G1)' category.</p> <p>Additional Secretary, Mines invited comments of MoEFCC on the issue.</p> <p>MoEFCC commented that NPV was reduced (1%, 2% & 5%) based on the forest density and delegation of power upto 70% of the forest areas in a block lies with the Regional office of MoEFCC. A guideline was issued on 24.12.2018 in this regard which may be referred.</p> <p>CMPDI responded that though MoEFCC revised NPV rate, but they have kept a provision of around 25 boreholes in 10 sq km area for coal which will not lead to 'Proved' category (G1) of resource assessment. It has requested MoEFCC to enhance the number of boreholes to 6-7 boreholes per sq km so that the resource can be assessed in 'Proved' category.</p>
58.04.19	<p>Rashtriya Ispat Nigam Limited (RINL) being a notified exploration agency is ready to explore the potential iron ore blocks in the states of Andhra Pradesh and Odisha (Preferably in Sundargarh and Keonjhar districts) through NMET funds and develop the block to mine (Para 57.06.13)</p> <p style="text-align: right;">(Suggestion: RINL)</p> <p>Additional Secretary, Mines advised RINL to submit the proposal to NMET Secretariat if they have the required capacity in carrying out exploration. However, it was made clear that NMET funding is for auctionable blocks only.</p> <p>RINL informed that presently the resources of RINL are engaged in carrying out detailed exploration works in its captive mines. RINL is not in a position to take up any auctionable blocks for exploration at this stage.</p>
58.04.20	<p>Presently there are 27 districts in Chhattisgarh state. Separate District Resource Maps for some new districts are not available so far. It is requested to publish DRM of these new districts. It is also suggested that DRM of different district are not published on same scale. (Para 57.07.01)</p> <p style="text-align: right;">(Suggestion: Directorate of Geology & Mining, Chhattisgarh)</p> <p>GSI expressed that discussion was held with DGM, Chhattisgarh in this regard and</p>

	<p>State Unit: Chhattisgarh, GSI, CR has formulated an item to achieve the objective titled "Digitization, compilation and up-gradation of the District Resource Maps of Raipur, Balodabazar, Bemetara and Durg districts on Arc GIS platform on 1:250K scale" in FS 2019-20.</p>
58.04.21	<p>Even though several organizations/agencies are involved in mineral investigation and exploration, but no report is being shared for the work already carried-out/in progress/proposed with the Telangana state. Therefore, it is requested to issue suitable instructions through CGPB platform for sharing the reports with the State Govt. (Para 57.07.02)</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>Additional Secretary, Mines advised, DMG, Telangana may check availability of the reports handed over to them by GSI. In case the reports not being available with them, they may contact ADG & HoD, SR or Dy. DG, State Unit: Telangana to sort out the issue.</p> <p>GSI informed the house that in 2016, GSI handed over 49 geological reports to the Govt. of Telangana. In 2017, GSI took up investigation of three prospective limestone blocks at the instance of DMG, Telangana in the gap areas of existing limestone concessions in Suryapet District of Telangana and the GSI report was handed over to MECL on 12.09.2017. In 2018, GSI handed over four reports of iron ore investigations (G4 stage) carried out during FS 2016-17 to Govt. of Telangana.</p>
58.04.22	<p>It is requested to GSI, Itanagar to provide a copy of all the Geological and mineral exploration reports carried out during the period of last ten years along with maps, plans, section etc. in soft and hard copy to the state DGM for the official purposes (Para 57.07.03)</p> <p style="text-align: right;">(Suggestion: DGM, Arunachal Pradesh)</p> <p>Additional Secretary, Mines directed that GSI needs to address such issues and provide handholding support to the Northeastern states.</p> <p style="text-align: right;">(Action: GSI)</p> <p>GSI stated that soft copy of all the reports on geology and mineral exploration carried out during last ten years in Arunachal Pradesh have been handed over to DGM, Arunachal Pradesh.</p> <p>Additional Secretary, Mines advised ADG & HoD, GSI, NER to visit Arunachal Pradesh to meet the Chief Secretary of Arunachal Pradesh and hand over all the reports to DGM, Arunachal Pradesh. It was also requested to send an Action Taken Report to MoM in this regard.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NER)</p>
58.04.23	<p>CSIR-NEERI has been working in different areas which look at environment sustainability. Of late, it is observed that many hill stations have witnessed unsustainable growth. It is necessary that the extent of urbanization need to be carried out keeping in view the physical environment especially the topography and the availability of resources like water. In this light, it is</p>

	<p>appropriate that GSI can undertake preparation of land suitability map for construction of houses in the hilly regions. It is suggested that this exercise may be done for the region in the vicinity of Nainital and other lake Bhimtal, Sattal, Naukuchiyatal, Khurpatal, Sukhatal in the Uttarakhand state. Though an exercise was done in late nineties, it needs to be revisited since the previous map prepared was not georeferenced and land use and land cover may have changed in last 20 years. Besides, micro-zonation map for this region should also be carried out. In many places, where our institute is studying urbanization in hilly regions, we realize that a proper mapping and sustainability of the slope should be urgently taken up. (Para 57.08.01)</p> <p style="text-align: right;">(Suggestion: CSIR-NEERI)</p> <p>A joint meeting was held on 12.02.2018 at GSI, CHQ, Kolkata for understanding the need of the proposed work of CSIR-NEERI and expectation from GSI in that regard. It was decided that CSIR-NEERI will frame a Perspective Plan related to the preparation of Land Suitability Map for construction of houses in the Nainital, Bhimtal, Sattal, Naukuchiyatal, Khurpatal and Sukhatal areas in Uttarakhand in consultation with various Government Agencies (CBRI, CRRI, CGWB, Sol etc.) to address the enumerated issue. As a follow up action NEERI will outline the need of GSI's service in reference to that plan.</p> <p>GSI mentioned that once the request from CSIR-NEERI is communicated to GSI for services, necessary action will be taken to address the issue.</p> <p>Additional Secretary, Mines advised CSIR-NEERI to prioritize the issue and expedite the matter.</p> <p style="text-align: right;">(Action: CSIR-NEERI)</p>
<p>58.04.24</p>	<p>Surface Geological study for finalizations of portal locations and Tunnel alignment for the following tunnels:</p> <p>A) Arunachal Pradesh</p> <p>(a) 3.20 Km long tunnel, between Km 66.80 to 97.10 on road Balipara – Charduar - Tawang under Project Vartak. (b) 2.45 Km long tunnel, between Km 132.50 to 150.00 on road Balipara- Charduar-Tawang Under Project Vartak. (Para 57.08.02)</p> <p style="text-align: right;">(Suggestion: BRO)</p> <p>GSI informed that work has already been initiated after signing MoU with BRO. As per the request of BRO, preliminary appraisal by GSI has already been done. The proposed work may be taken up by GSI after signing MoU with BRO. GSI further stated the following:</p> <p>(i) Under the MoU dated 25.04.2017 with BRO, Project Vartak, GSI carried out preliminary assessment of proposed tunnel in two phases in 2017. The notes on the field work were submitted to BRO.</p> <p>(ii) Request from BRO for geotechnical investigation of Sela Pass tunnel to include in annual FSP of GSI was received on 26.08.2017. Accordingly, GSI held discussion with BRO (R&D, Shillong) officials on 01.05.2018. Since the earlier MoU was signed for one year only, a fresh MOU needs to be signed for the FS</p>

	<p>2018-19 on charge basis. A fresh MoU for signing had been handed over to BRO on 01.06.2018.</p> <p>In this context, BRO raised certain points regarding the draft MoU and stated that they will not be able to provide transportation from GSI, NER Shillong to the worksite, but can provide only local transport and requested GSI to modify the MoU accordingly.</p> <p>ADG & HoD, GSI, NER mentioned that as per Schedule of Charges, 2014, the sponsored agency needs to provide transportation from GSI Regional Headquarter to the worksite.</p> <p>Additional Secretary, Mines emphasized that since the proposed study to be carried out in a strategic location of the country, BRO and GSI should work hand-in-hand and the issue should be resolved at the earliest.</p> <p>DG, GSI advised ADG & HoD, GSI, NER to send a proposal with the requests of BRO for exemption of transportation cost which will be examined by ADG (Finance) and a suitable decision will be taken. This issue needs to be resolved before 22.02.2019.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NER & BRO)</p> <p>B) Assam</p> <p>Proposal for Construction of Underwater Tunnel Across Mighty Brahmaputra River for North-South Connectivity.</p> <p>Proposal for finalizing tunnel alignment and portal location based on the surface geological studies may be included in your annual programme. (Para 57.08.02)</p> <p style="text-align: right;">(Suggestion: BRO)</p> <p>Like the previous issue, BRO raised same points regarding MoU. Further BRO mentioned that the final corridor is not yet finalized where survey to be carried out.</p> <p>Additional Secretary, Mines reiterated that issue may be sort out at the earliest.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NER & BRO)</p>
58.04.25	<p>Detailed field surveying and creation of lithological, structural, geomorphological etc. mapping by GSI for generation of large scale landslide hazard zonation maps of study area in Uttarakhand through application of UAV. (Para 57.08.03)</p> <p style="text-align: right;">(Suggestion: NDMA)</p> <p>NDMA requested GSI to extend adequate support so that the proposed work can be completed by March 2020.</p> <p>Survey of India (Sol) informed that study for pilot area and the large scale mapping is under progress.</p> <p>DG, GSI requested NDMA to provide all the requisite maps from Sol and NRSC and assured that the item will be taken up in FS 2019-20 after obtaining the maps.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NR & NDMA)</p>

<p>58.04.26</p>	<p>A detailed and modified GIS based micro level Landslide Hazard Zonation Study as per BIS methodology and guidelines is needed for site clearance on landslide point of view in Nilgiris and Kodaikanal of Tamil Nadu State. The above project may be taken on collaborative basis in between Department of Geology and Mining, Tamil Nadu and Geological Survey of India, Southern Region, Chennai. (Para 57.08.05)</p> <p style="text-align: right;">(Suggestion: DGM, Tamil Nadu)</p> <p>GSI conveyed that after discussion with DGM, Tamil Nadu, GSI has taken up a pilot project on Meso Scale Landslide Susceptibility mapping on 1: 10,000 during FS 2018-19 (in parts of toposheet 58A/11 in Nilgiri district) to finalise the methodology for Landslide Zonation on 1: 10,000 scale as there is no SOP / guideline available at present.</p>
<p>58.04.27</p>	<p>It is requested to GSI to provide training for the various level officers of the DGM, Arunachal Pradesh. (Para 57.09.02)</p> <p style="text-align: right;">(Suggestion: DGM, Arunachal Pradesh)</p> <p>GSI expressed that RTI, GSI, Shillong is regularly conducting various training programmes and regular communications through email have also been made to DGM office, Arunachal Pradesh. However, no nominations were received till date for training programmes. All the training programmes are open to all geoscientists of state DGMs of NER free of cost. If specific request comes for training programme from DGM, Arunachal Pradesh for sufficient number of officers/staffs of DGM, resource person from GSI, NER may go to impart training there.</p> <p>In this context, DMG, Madhya Pradesh raised the concern that their own field season may get affected if officers from DMGs attend the programmes of GSITI conducted during peak time of the field season (October – May).</p> <p>DG, GSI advised the State DMGs that they may nominate their officers on rotation basis to avoid hampering of their own field season. He also requested Dy. DG & HoD, GSITI to send training calendar of FS 2019-20 to all the DMGs for their advance planning.</p> <p style="text-align: right;">(Action: All state DMG/DGMs)</p> <p>Additional Secretary, Mines opined that some flexibility is required as per the demand of state DGMs and GSITI may restructure their training calendar to accommodate the requests from DGMs.</p> <p style="text-align: right;">(Action: GSITI)</p>
<p>58.04.28</p>	<p>NMDC has requested MoM to include NMDC in the Technical cum Cost Committee (TCC) of NMET. Since the exploration blocks being undertaken through NMET are to be auctioned for grant of minerals concessions like Composite License/Mining Lease, the experience of NMDC Ltd as an exploration agency and also a leading miner of the Nation will have added advantage and can contribute to the functioning of TCC. (Para 57.11.01)</p> <p style="text-align: right;">(Suggestion: NMDC)</p>

	NMET conveyed that Executive Committee (EC) meeting held on 11.01.2018 has approved the inclusion of a representative from NMDC in TCC, NMET.
58.04.29	<p>Exposure Visit for Geologists, Mining Engineers and Chemists of the DGM, Assam (Para 57.11.02)</p> <p style="text-align: right;">(Suggestion: DGM, Assam)</p> <p>GSI responded that mines visit does not come under the purview of GSI and DGM, Assam may contact IBM to discuss the same.</p> <p>IBM apprised that request have been made to the Govt. of Assam to be associated with IBM during the mining plan/MCDR inspection being carried out by IBM officers in Assam.</p> <p>DGM, Assam informed that IBM directed the Regional Controller of Mines, Guwahati to do accordingly as per the request of DGM, Assam.</p>
58.04.30	<p>As per the provisions in the re-organization bill published in the gazette of the India on 01.03.2014 an integrated Steel Plant is proposed for setting up in YSR Kadapa District of Andhra Pradesh. In this regard, the department is accessing the existing reserves of Iron Ore available in the State of Andhra Pradesh in order to submit a detailed note to the Government of India in connection with establishment of Steel plant. Accordingly, various deliberations are being conducted with the Government of India for establishment of Steel Plant. In this connection, the Department has been requesting the GSI for identification of prospective freehold areas in the Districts of Kadapa, Chittoor, Kurnool, Ananthapur and Prakasam Districts of Andhra Pradesh. (Para 57.11.04)</p> <p style="text-align: right;">(Suggestion: DMG, Andhra Pradesh)</p> <p>DMG, Andhra Pradesh conveyed that GSI has expressed willingness to carry out G2 level investigations of iron ore and manganese resources in the identified blocks. Accordingly, GSI communicated the draft MoU to the DGM, AP. DGM, AP has offered its comment on the draft MoU and sent to GSI for further deliberations.</p> <p>GSI informed that General Exploration for Iron Ore in Obulapuram Area (G2 Stage), Anantapur district, Andhra Pradesh has been taken up during FS 2018-19, as per the request of DMG, AP to establish resource for proposed integrated steel plant in Kadapa district. GSI has proposed total six iron ore investigation in Kadapa (two G4), Chittoor (one G4), Kurnool (one G3) and Prakasam (two G4) districts after identification of prospective freehold areas in those districts in FS 2019-20.</p> <p>Earlier M/s. Hindustan Zinc Ltd was having mining lease for Lead and Zinc in RF in Bandalamottu (V) of Bollapalli (M) Guntur District and subsequently the lease was surrendered in the year 2002. Hence, GSI is requested to take up detailed G2 level investigation and re-estimate the reserves. (Para 57.11.04)</p> <p style="text-align: right;">(Suggestion: DMG, Andhra Pradesh)</p> <p>DMG, Andhra Pradesh apprised that the department along with MERIT are preparing a detailed note on the mining lease for lead and zinc in RF in Bandlamottu (V) of Bollapalli (M) Guntur district previously held by M/s. HZL, for</p>

	<p>undertaking G2 level investigations and re-estimation of reserves using NMET funds. The proposal will be submitted to the NMET and GSI in due course. DMG, AP added that the Bandalamottu Lead and Zinc block of Guntur district will be auctioned by granting composite license.</p> <p>During the 50th SGPB Meeting held on 05.10.2017 at Ibrahimpatnam, Andhra Pradesh the Department of Mines & Geology requested the GSI to take up G2 level exploration for 9 Manganese Blocks identified in Vizianagaram District. (Para 57.11.04)</p> <p style="text-align: right;">(Suggestion: DMG, Andhra Pradesh)</p> <p>GSI apprised one exploration item in Chinnabantupalli and Bakuravalasa Block was taken combining Block Nos. I and VIII and the other exploration item in Yenubaruva block was taken for Block IX. Remaining three blocks were excluded as the block areas were very small. Blocks III and V were found to have very low Mn values while Blocks VI, VII are situated inside the forest. In both the G3 items drilling could not be initiated either due to non-availability of forest clearance or due to local problems from private land owners.</p> <p>Another request from DMG, AP was received requesting to undertake G2 level exploration for 14 Manganese Blocks. Out of these, 2 items have been continuing in current FS, 8 items have been proposed for FS 2019-20 and rest will be taken up later on.</p>
58.04.31	<p>Mineral Exploration to be expedited through NMET (Para 57.11.07)</p> <p style="text-align: right;">(Suggestion: DMG, Rajasthan)</p> <p>It was requested by DMG, Rajasthan to all the agencies engaged in the state to carry out exploration work with NMET funding on G3 level and above as far as possible so the DMGR may enable to put the area for e-auction. DMG, Rajasthan further stated that G4 level exploration cannot be funded through NMET as there is very low chance of getting positive results. It is also requested that the State DGM to be involved in decision making and finalising the NMET projects.</p> <p>Director (Tech), MoM responded that NMET is meant for both regional and detailed exploration as per the MMDR Act.</p> <p>NMET commented that as per the present policy of NMET, representative from the state DGM needs to be present in TCC meeting. If representative from the state DGM is not present, the project is not considered to be taken up.</p> <p>Additional Secretary, Mines suggested NMET to communicate with the State DGMs prior to finalisation of NMET projects.</p> <p style="text-align: right;">(Action: NMET)</p>
58.04.32	<p>Exploration for Potash upto G-3/G-2 level (Para 57.11.08)</p> <p style="text-align: right;">(Suggestion: DMG, Rajasthan)</p> <p>It was expressed by DMG, Rajasthan that Potash is found in Ganganagar-Bikaner basin where presently GSI has been working in Satipura area and MECL in Lakhasar area. The present exploration is of G-4 level. DMG, Rajasthan requested</p>

	<p>GSI and MECL to upgrade the exploration activities upto G-3/G-2 level in already explored areas upto G-4 level and expedite the work at earliest so potash blocks can be put for e-auction.</p> <p>GSI responded that the G3 stage Potash investigation report of Satipura Sub-basin has been handed over to the DMG, Rajasthan on 22.10.2018. GSI will take up 4 more items on Potash in the Satipura Sub-basin during FS 2019-20.</p> <p>Additional Secretary, Mines advised DMG, Rajasthan to approach ADG & HoD, GSI, WR for any clarification / request. He reiterated that all the state DGMs may have quarterly interactions with GSI and MECL to discuss various issues related to exploration activities carried out in their respective states.</p> <p style="text-align: right;">(Action: DMG, Rajasthan/All State DGMs/DMGs)</p>
58.04.33	<p>It is proposed by DGM, Madhya Pradesh that more than one exploration agency can be allowed to carry out exploration in the same area for different mineral commodities and GSI should take up more exploration blocks under regional mineral targeting projects and for detail investigations of strategic minerals. (Para 57.11.09)</p> <p style="text-align: right;">(Suggestion: DGM, Madhya Pradesh)</p> <p>GSI informed that based on the work of Regional Mineral Targeting project in Betul belt and Mahakoshals carried out during FS 2018-19, two G2, one G3 and two G4 stage investigations for Base metals & PGE have been proposed for FS 2019-20.</p> <p>Govt. of MP proposes to prepare Master plan of mineral exploration to be undertaken by all the agencies who are working in the exploration field in Madhya Pradesh. All the concerned exploration agencies are solicited to submit their future plan for at least five years to the State Govt., to create a synergy in the field of exploration. After compiling the geoscientific data, a consolidated Master Plan will be made out and accordingly the exploration work will be taken up. GSI, being the major exploration agency, shall expeditiously endeavor appropriate assistance in the preparation of Master Plan. (Para 57.11.09)</p> <p style="text-align: right;">(Suggestion: DGM, Madhya Pradesh)</p> <p>GSI apprised that draft five-year exploration plan of GSI has been presented and furnished to the DGM, MP during 51st SGPB meeting in April, 2018. On request of the Secretary, Natural Resources Division, Govt. of MP, a committee was constituted wherein 2 Directors of GSI and 2 Geologists of DGM, MP were nominated. The Committee held several meetings and compilation of proposals is under progress.</p> <p>A single GIS based integration platform for integrating all the geospatial information related to exploration agencies including geological, geophysical and geochemical together with all the past exploration data as well as leasehold status and forest cover status shall be established by the state of Madhya Pradesh. The exploration work carried out by all the</p>

	<p>exploration agencies should be placed in the single database system and that database will be made accessible to all exploration agencies like GSI, IBM and MOIL, MECL etc. It is requested to all the agencies to share their data for this purpose. It is requested to GSI to actively participate in the preparation of the Geospatial database. (Para 57.11.09)</p> <p style="text-align: right;">(Suggestion: DGM, Madhya Pradesh)</p> <p>GSI intimated that the meeting regarding National Geoscience Data Repository (NGDR) project for MoM was held on 27.11.2018 at GSI, SU: Madhya Pradesh, Bhopal in which representatives from PWC, GSI, DGM, MP participated. Preparation of DPR is underway.</p> <p>DGM, Madhya Pradesh requested GSI to organize training program on latest techniques in geo-exploration including IT and GIS as special theme for officers of DGM as well as other agencies, as to make them acquainted with updated technology.(Para 57.11.09)</p> <p style="text-align: right;">(Suggestion: DGM, Madhya Pradesh)</p> <p>GSI stated that officers of DGM, MP are given training as and when requested by DGM.</p>
<p>Agenda Items received from Stakeholders were placed before the House for discussion by Shri P.C. Patra, Dy. DG, PSS (P&M)</p>	
<p>Discussion on issues raised by stakeholders pertaining to Mission-I activities of GSI</p>	
<p>58.05.01</p>	<p>Issue-MI.1</p> <p>The Aero-magnetic data for 75,000 sq. km area of Odisha state has been handed over to GSI. The interpreted outcome of those data may be communicated to Director Geology, Odisha for planning out the future mineral targeting.</p> <p style="text-align: right;">(Suggestion: Directorate of Geology, Odisha)</p> <p>GSI has signed MoA with M/s IDPeX Pvt. Ltd. in January 2019 for interpreting existing legacy data of GSI and data acquired by Geoscience Australia for Government of Odisha. NMET has accorded financial sanction of Rs. 3,37,90,251/- (Inclusive of all taxes) towards the cost of the Project. The final report is expected to be available by April, 2021. After interpretation of data GSI will carry out detailed work in promising areas.</p> <p style="text-align: right;">(Action: Dy. DG & HoD, GSI, RSAS)</p>
<p>58.05.02</p>	<p>Issue-MI.2</p> <p>As a collaborative project by DMG, GSI and RSMML, RGMP (Rajasthan Geological Mapping Project) for geochemical mapping as a part of NGCM (National Geochemical Mapping) was taken up, 834 composite Soil samples are lying with DMGR for analysis; GSI is requested to collect the samples for analysis as it is part of NGCM.</p>

	<p style="text-align: right;">(Suggestion: DMG, Rajasthan)</p> <p>During the course of the meeting with the Additional Chief Secretary, Forest, Environment, Mines and Petroleum, Government of Rajasthan on 21.12.2018 at Jaipur, DG, GSI has assured DMG, Rajasthan to facilitate the analysis of NGCM samples through GSI labs which they are unable to analyze due to non-availability of required facilities at their end.</p>
58.05.03	<p>Issue-MI.3</p> <p>Proposal of DMG Jharkhand to take into account complete expanses of degree sheet numbers 63P, 72D, 72H, 72L and 72P for Multi-Sensor Aero-Geophysical Survey under National Aero-Geophysical Mapping Programme Survey as these cover crucial mineralized zones for targeting Base Metal, REE, RM, etc.</p> <p style="text-align: right;">(Suggestion: DMG, Jharkhand)</p> <p>The central part of the proposed area was partly covered under the project Operation Hard Rock (OHR) in 1967-68. During FS 2019-20, it is proposed to carry out surveys by GSI using TOASS over the uncovered blocks on the Eastern and Western sides by employing magnetic and spectrometric sensors.</p> <p style="text-align: right;">(Action: Dy. DG & HoD, GSI, RSAS)</p>
58.05.04	<p>Issue-MI.4</p> <p>1. Proposal from DCI Manipur to GSI for taking up programmes on Specialised Thematic Mapping in the Ophiolite suites of Khudengthabi-Moreh, Lokchao-Maipi-Mangkang in Toposheet Nos. 83 L/3 & 7.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>GSI informed that in the current FS 2018-19, GSI NER is carrying out STM in parts of toposheet no. 83K/7 and 11. The different parts of the ophiolite belt are being covered systematically through STM. The area suggested will also be covered in near future.</p> <p>2. Proposal from DCI Manipur to GSI for taking up programmes on Geochemical Mapping in the Ophiolite of Manipur in Toposheet Nos. 83 L/5 & 6.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>GSI informed that Geochemical Mapping in toposheet no. 83L/5 has been proposed in FS 2019-20. Toposheet no. 83L/6 will be taken up in future considering the lithology and terrain condition.</p>
58.05.05	<p>Issue-MI.5</p> <p>Request from NMDC to GSI to provide the raw Aero-Magnetic data (<5nT and</p>

	<p>>5nT) for Vindhyan Super Group in part of various districts of Madhya Pradesh, where NMDC is conducting exploration for Diamond.</p> <p style="text-align: right;">(Suggestion: NMDC)</p> <p>GSI apprised that prior approval of MoD is required to share the raw Aero magnetic data (< 5nT) and GSI has written to MoD for approval. The data will be shared with NMDC after getting clearance from MoD and signing a formal MoU with NMDC.</p> <p>Regarding sharing of >5nT Aero-Magnetic data, it was informed that GSI will share the data after signing of MoU with NMDC. In this context, Director (Tech), MoM informed that MoU may not be required as per Data Dissemination Policy, which is going to be effective from 1st March 2019 whereby, the aero magnetic data (>5nT) can be handed over to NMDC without signing MoU.</p> <p>NMDC acknowledged MoM and GSI and conveyed that the aero-magnetic data will be utilized for 45 target areas for exploration of diamondiferous kimberlite.</p> <p style="text-align: right;">(Action: Dy. DG & HoD, GSI, RSAS)</p>
<p>Discussion on issues raised by stakeholders pertaining to Mission-II activities of GSI</p>	
<p>58.05.06</p>	<p>Issue-MII.1</p> <p>Regarding issue raised by De Beers India Pvt. Ltd on Review of the MMDR (Amendment) Act, 2015 to Revive Private Sector Exploration.</p> <p style="text-align: right;">(Suggestion: De Beers India Private Limited)</p> <p>Additional Secretary, Mines stated that the amendment of National Mineral Policy is in the advanced stage of finalization wherein some of the issues raised by private sectors for mineral exploration will be addressed in addition to certain structural changes in NMET. Once the National Mineral Policy is finalized, the MMDR Act will be revised accordingly.</p>
<p>58.05.07</p>	<p>Issue- MII.2</p> <p>Request from DGM, Odisha to GSI to convene meeting of Working Groups for different minerals prior to finalization of GSI field programmes in order to avoid possible overlapping of exploration/prospecting programmes.</p> <p style="text-align: right;">(Suggestion: Directorate of Geology, Odisha)</p> <p>GSI responded that once the FSP proposals by GSI for FS 2019-20 are finalised in the CGPB meeting, the programmes will be shared with other exploring agencies in the State.</p> <p>Directorate of Geology, Odisha informed that recently a meeting was convened with GSI, S.U. Odisha, MECL, IBM and others to formulate the programs without overlaps.</p>

<p>58.05.08</p>	<p>Issue- MII.3</p> <p>All the stake holders involved in the exploration activities within the state should allow the field level officers of exploring agencies to interact within themselves for sharing of knowledge and technology.</p> <p style="text-align: right;">(Suggestion: Directorate of Geology, Odisha)</p> <p>GSI conveyed that interaction between field level officers of different exploring agencies for exchange of ideas and knowledge sharing is always appreciated and promoted.</p> <p>Additional Secretary, Mines advised all DMGs to take initiative for enhancing interaction among field officers from different government agencies, state DGMs and exploration agencies.</p> <p style="text-align: right;">(Action: All state DMG/DGMs)</p>
<p>58.05.09</p>	<p>Issue-MII.6</p> <p>DGM Chhattisgarh expressed that in case of non-forest activities in forest areas NPV payment is required, but it should be based on practical approach. Following are proposed:</p> <ul style="list-style-type: none"> • For G-4 level exploration complete waiver of NPV, since at this level of exploration there is very less core drilling and thus minimal disturbance to the forest land. • Revision of NPV for G-2 level exploration. <p style="text-align: right;">(Suggestion: DGM, Chhattisgarh)</p> <p>Additional Secretary, Mines directed that the revised and the latest NPV guidelines dated 24th December 2018 may be complied with in this regard.</p>
<p>58.05.10</p>	<p>Issue-MII.7</p> <p>1. In Parasrampura area of Jhunjhunu district exploration for limestone through NMET was carried out by MECL as per report resources are about 320 million tonnes. State Government desires to split this area in to two blocks each of about 160 million tonnes. Therefore, MECL is requested to provide two reports forming two blocks each of about 160 million tonnes so that these blocks can be put up for auction.</p> <p style="text-align: right;">(Suggestion: DMG, Rajasthan)</p> <p>MECL informed that they are in contact with DMG, Rajasthan and action regarding the auction of two blocks in Parasrampura area of Jhunjhunu district is going on and is expected by end of February 2019.</p>

2. GSI, WRO, Jaipur has provided a report on Kheda copper block, the area was put for auction but no response was there from entrepreneurs, therefore, GSI is requested to provide reports of such blocks which are feasible for mining and attract entrepreneurs. GSI may take help of IBM for economic and feasibility axis. In this regard entrepreneurs like HZL, HCL were consulted and it was suggested that for copper mining reserves must be more than 50 million tonnes with average grade of 1% Cu.

(Suggestion: DMG, Udaipur, Rajasthan)

GSI conveyed that as per MMDR Amendment Act 2015 after attending to the geological study axis of MEMC Rule, 2015 the mineral blocks are to be taken up for auction. During the course of the meeting of DG, GSI with Additional Chief Secretary, Forest, Environment, Mines and Petroleum, Government of Rajasthan on 21.12.2018, the later had outlined that feasibility study will be undertaken by DMG, Rajasthan.

It was suggested that, as copper prospects with high tonnage & grade are not available today, the mining agencies may think of blending the low grade copper ore with the higher grade ores. This is a viable option for utilization of low grade ores which are in proximity of existing mines and smelters. Alternately, economic viability is to be studied through suitable beneficiation techniques to upgrade the low grade ores, for which IBM may be contacted.

3. Project for exploration of wollastonite and emerald should be taken up as indications of both occurs in wide spread areas falling in Sirohi, Ajmer and Rajsamand districts.

(Suggestion: DMG, Rajasthan)

It was informed that GSI is in the process of formulation of two G4 stage FSP proposals one each, pertaining to Emerald and Wollastonite in Ajmer, Sirohi and Rajsamand Districts, Rajasthan for FS 2019-20.

DMG Rajasthan informed that in view of the fact that emerald is not mined for last 20-25 years in Rajasthan and only preliminary geological investigation has been taken up by State, while GSI had published a map of Emerald bearing belt of Rajasthan long back. He requested GSI to take up exploration for emerald and wollastonite in Rajasthan.

GSI informed that except diamond, GSI does not take up investigation normally, for precious and semiprecious stones and takes up such programs only on specific request from States, as these occurrences are highly localized, if any. DMG Rajasthan agreed to send formal proposals for exploration to GSI and requested active participation of State Govt. officers in these programs from GSI.

(Action: DMG, Rajasthan/ GSI, SU:Rajasthan)

	<p>HZL opined that the size of the block area for auctioning may be increased for generating interest from mining companies, to which Advisor to DG, GSI commented that the area of the block for auctioning need to be decided beforehand by the competent authority.</p> <p>4. GSI has provided exploration reports for potash as per Auction Rules, 2015. For assessment of mineral asset sale price from IBM is to be obtained, IBM has shown inability to provide sale price, as potash mining is not done in the country, in lieu of this block cannot be auctioned, therefore through CGPB ministry is requested to provide the sale price.</p> <p style="text-align: right;">(Suggestion: DMG, Rajasthan)</p> <p>IBM responded that at present there is no sale price for Potash in India, however, action is being initiated. MECL informed that the issue will be sorted out in the next meeting scheduled on 22nd February 2019. DMG, Udaipur, Rajasthan requested that a committee at Ministry level may be constituted to sort the issue along with representatives from MECL, IBM, GSI, States and others.</p> <p style="text-align: right;">(Action: MoM/IBM)</p>
58.05.11	<p>Issue-MII.8</p> <p>To take up exploration for discoveries of new large deposits of limestone in the states of Uttar Pradesh, Jharkhand, Odisha, coastal Andhra Pradesh, Tamil Nadu and states of North-East”.</p> <p style="text-align: right;">(Suggestion: FIMI)</p> <p>GSI informed that 7 items for exploration for limestone are proposed to be taken up in Tamil Nadu (2 nos) and NER (5 nos) during FS 2019-20.</p>
58.05.12	<p>Issue-MII.9</p> <p>1. Exploration in captive leases expiring in 2030:</p> <p>As per section 8A (5) of MMDR Act, 1957 captive leases will be expiring in 2030. Time bound exploration over the entire potential mineralized area in these mines need to be taken up. The state govt. may be requested to identify such leases expiring on 31.03.2030.</p> <p style="text-align: right;">(Suggestion: IBM)</p> <p>GSI conveyed that it is ready to take up exploration work in the potential freehold areas of expiring captive leases provided that the information on the potential freehold areas along with information on the present law and order condition are made available to GSI by IBM/State DGMs.</p> <p>IBM informed that in 2020 non-captive leases are expiring while in 2030 around 220 captive leases are expiring. For final processing of the information IBM requested State DGMs to provide the exact data. The compiled final data can be</p>

shared with GSI.

(Action: IBM/State DGMs)

2. Time bound exploration in leases expiring beyond 31.03.2020:

Identification of leases expiring after 31.03.2020 in accordance with the section 8A (6) of MMDR Act, 1957 and prioritization of time bound exploration in these leases.

(Suggestion: IBM)

GSI has proposed four items in 2019-20 in Jharkhand in non-working leases for Iron and Manganese. If some more areas with forest clearance is given, GSI will take those items also.

(Action: IBM/State DGMs)

3. Identification of non-working leases and determination of such leases under section 4A (4) of MMDR Act, 1957 may be expedited so that exploration agencies can take up exploration work in these leases.

(Suggestion: IBM)

State DGMs to take action immediately. Additional Secretary, MoM advised DGMs to brief the Principal Secretary of the respective State regarding the administrative issues for identification of non-working leases and related actions to expedite the process.

(Action: State DGMs)

4. Kacche Ari Dongri mines (M/s Godawari Ispat and Power Ltd) is a single mine producing in (2017-18) more than one million tonnes of Magnetite in Chhattisgarh. Boriya Tibbu Iron Ore Mines of M/s Godawari, M/s Sharda Energy and Chhote Donger mine of M/s Jayaswal Necco Industries have also reported magnetite in their mining leases. Surrounding areas of these mines can be considered for further detailed exploration for Magnetite (Iron ore) in Chhattisgarh State.

(Suggestion: IBM)

GSI informed that freehold areas will be worked out for taking up detailed exploration for Iron Ore in and around Kacche Ari Dongri, Boriya Tibbu and Chhote Donger, if present status of PL/ ML of the proposed blocks is intimated by IBM /DGM with block co-ordinates. In this context, IBM conveyed that the status of the mining leases will be shared with ADG & NMH-II for finalising the proposals.

(Action: IBM/ ADG M-II GSI)

5. Various private agencies have done the RP and PL surveys for deep seated minerals viz. Kimberlite and Gold and have selected potential areas but due to changes of rules it's not granted or converted into PL or ML. Particularly for Diamond and Gold potential area in Jashpur and Jhangir, Champa district which can be further taken up for G3, G2 level exploration so that same can be auctioned in near future.

(Suggestion: IBM)

Most of the areas of Jashpur and Janjgir districts of Chhattisgarh which were under RP & PL, have already been explored by GSI earlier. If any scope of further exploration is there after consultation of earlier reports GSI will take up programmes in these areas. One G-4 level exploration programme is currently under execution in Barjor area of Jashpur district by GSI and another programme is proposed for FS 2019-20 in Surguja, Balrampur & Mahasamund districts for Gold & Base metals.

Three G-4 level Kimberlite (KCR) items were already completed by GSI during FS 2017-18 in Raigarh, Balodabazar, Mahasammund, Gariyaband & Dhamtari districts and one item is under execution in Kabirdham District and two items have been proposed for FS 2019-20 in Surguja, Jashpur, & Raigarh districts.

DG, GSI advised IBM to contact ADG & NMH-II, GSI for sorting out the matter.

(Action: IBM/ NMH-II GSI)

6. Chhattisgarh is the only tin producing State in India. Tin ore is known as cassiterite, which was reported in Dantewara district apart from Bailadila Iron ore complex. It's associated with the lepidolite bearing pegmatites. Cassiterite bearing pegmatites are reportedly rich in collumbite and tantalite, which are ore of rare metals niobium and tantalum, respectively. Lepidolite is also a source of rare alkali metals namely lithium (Li <2.15%) cesium (Cs <0.83%) and rubidium (Rb <5.9%). Dantewada and Jagdalpur area may be selected for detailed geological study for Tin and Rare earth elements by AMD/GSI.

(Suggestion: IBM)

GSI conveyed that keeping in view the prevailing law & order situation it is not practicable to take up any mineral exploration work in the area, at present.

7. Bauxite ore: The Latehar district of Jharkhand especially in between Orsapat and Chirokukud area needs to be explored in detail. Western part of Amtipani area (Gorapahar area) in Netarhat plateau, shows promising mineralization of Bauxite, which is yet to be explored in detail. The Forest land of leased out areas in Gumla district are also not been explored in detail to prove its future potentiality.

(Suggestion: IBM)

It was informed that GSI will take up exploration in these areas if the leases are expiring in 2020. GSI has proposed two items for bauxite exploration around Jaljali, Godami and Dhoradih in Latehar district, Jharkhand during FS 2019-20.

8. Graphite: Entire Palamau district and its surrounding area has indication of promising potentiality of Graphite mineralization but no detailed

	<p>exploration report is available for the district. Even the lease hold areas in villages of Rabda, Sohgara, Purnadih, Angara, Serendag, Hatai, Bistrampur etc. which are located in forest land needs to be explored in detail to have a clear picture of Graphite mineralization. Since promising Graphite deposit is reported to occur in Jharkhand only in the district of Palamau, hence clear assessment of its Resource potentiality is very much essential to meet the future requirement of the State.</p> <p style="text-align: right;">(Suggestion: IBM)</p> <p>Exploration in the lease hold areas in forest land around villages of Rabda, Sohgara, Purnadih, Batuatoli, Angara, Serendag, Hatai, Bistrampur etc. will be considered as per the communications from DGM, Jharkhand.</p> <p>Further, it was informed that GSI is carrying out 4 nos. of Specialised Thematic Mapping (STM) items in Palamau district, Jharkhand during FS 2018-19. Graphite mineralization, if reported, in the area, items will be taken up for further exploration in coming years. 4 items of graphite exploration have been proposed for FS 2019-20 in Latehar, Garhwa and Saraikela-Kharsawan districts, Jharkhand.</p> <p>9. Exploration for Gemstones: Search and Exploration covering a large area in pegmatites for Gemstones may be done by Govt. Agencies for ease of auctioning process.</p> <p style="text-align: right;">(Suggestion: IBM)</p> <p>GSI informed that if specific request comes with details along with lease status & information on the present law and order condition in the proposed area, GSI will consider taking up such investigations for exploration of gemstones.</p> <p style="text-align: right;">(Action: IBM)</p>
58.05.13	<p>Issue-MII.10</p> <p>Forest clearances (Payment of NPV)</p> <p>As per guidelines for stipulating the norms for Survey & Investigation on forest land circulated by Assistant Inspector General of Forest (FC) vide F.No 5-3/2007-FC, GoI, MOEF (FC Division), dated 9th May, 2018, the user agency has to pay NPV and ICFRE charges to take up exploration in forest areas.</p> <p style="text-align: right;">(Suggestion: MECL)</p> <p>Issue already discussed under para no. 58.05.11</p> <p>MECL participation in NGDR (National Geoscience Data Repository) and NCMT (National Centre for Mineral Targeting)</p> <p style="text-align: right;">(Suggestion: MECL)</p> <p>MECL is a stakeholder in the NGDR project for providing mineral exploration related data on all India level for the proposed NGDR system.</p> <p>The financial and functional model for NCMT is under preparation by the steering</p>

	<p>committee on the advice of the Secretary, MoM. Once the Financial/Technical model of NCMT is accepted and approved by the competent authority, a list of organisation/institute would be finalised by the governing body.</p> <p>Sharing of laboratory</p> <p>Facilities among GSI, MECL, IBM & other govt. & PSU laboratories.</p> <p style="text-align: right;">(Suggestion: MECL)</p> <p>As per the advice of Additional Secretary, Mines, a Laboratory Group has been constituted under the Chairmanship of ADG & NMH-IV, GSI with members from CSIR-CIMFR, CSIR-NGRI, AMD, JNARDDC, CSIR-NEERI and CSIR-NML.</p> <p>1st meeting of the Laboratory Group was held on 21st January, 2019 at Geological Survey of India, Central Headquarters. The meeting was attended by officials from other geoscientific institutes viz., CSIR-CIMFR, AMD, JNARDDC, CSIR-NEERI and CSIR-NML.</p>
58.05.14	<p>Issue MII.11</p> <p>To take up surface gravity survey in the gap areas of East Coast lignite belt, Tamil Nadu under GSI's own item during FS 2019-20 and share the gravity anomaly details for planning regional exploration for lignite.</p> <p style="text-align: right;">(Suggestion: NLC)</p> <p>DG, GSI conveyed that the ground gravity survey in the suggested area can be taken up as GSI's own item as per the standard NGPM methodology to generate baseline data at 2.5 km station interval i.e regional level which would help in identifying the basin only. However for delineating Lignite horizons, higher resolution of 1 sq. km. density is required, which can be undertaken as per Schedule of Charges of GSI on specific request from NLC.</p> <p style="text-align: right;">(Action: NLC)</p>
58.05.15	<p>Issue MII.13</p> <p>1. Standardization of Geological Report (GR) for auction blocks: As exploration is carried out by various agencies like GSI, MECL and State Govts., there is a need to have uniformity in data capture and analysis while preparing GR. A format is already available and prescribed in MEMC Rule, 2015, but we find it is not followed uniformly and we urge to strictly follow the standards outlined and represent finding in the specified format.</p> <p style="text-align: right;">(Suggestion: Tata Steel Limited)</p> <p>GSI informed that GSI is preparing all its mineral exploration reports following the MEMC Rule, 2015. DG, GSI requested all other stake holders to follow the MEMC Rule 2015 for quality of report.</p> <p>2. QAQC in exploration: A standard guideline for QAQC at each exploration activity may be developed and followed.</p> <p style="text-align: right;">(Suggestion: Tata Steel Limited)</p>

	GSI informed that it has a robust mechanism of quality control of all reports through appropriate review systems.
58.05.16	<p>Issue MII.14</p> <p>Proposal for Geological Exploration of copper ore at Tulsitanr (Tambakhan) in Deoghar district, Jharkhand.</p> <p style="text-align: right;">(Suggestion: DMG, Jharkhand)</p> <p>GSI informed that in the meeting held between the Secretary (Mines), Govt. of Jharkhand and the Dy. Director General, GSI SU: Jharkhand on 15th January, 2019, the Report entitled “Preliminary investigation of copper, lead and zinc mineralization at Tulsitanr (Santhal Parganas District) and Baghmari (Bhagalpur District), Bihar” was handed over to the Secretary (Mines), Govt. of Jharkhand for consultation. On the basis of recommendations of the report it was observed in the meeting that the area was not promising for further work and thus the issue is closed.</p>
58.05.17	<p>Issue MII.15</p> <p>1. Joint venture by DMR, AMD and GSI in the exploration of Rare Earth Elements (REE) in and around Sung Valley including Geophysical logging and drilling.</p> <p>2. Collaborative work by DMR and GSI in the exploration of copper and base metal mineralization associated with Quartz veins around Nongtnger-Langkokhlam near Phlangdiloin, South West Khasi Hills District.</p> <p style="text-align: right;">(Suggestion: DMR, Meghalaya)</p> <p>DMR, Meghalaya responded that two proposals, one on exploration of Rare Earth Elements in Sung Valley and another on base metal mineralisation around Nongtnger-Langkokhlam near Phlangdiloin, South West Khasi Hills District shall be proposed shortly for the forthcoming field season and requested GSI not only for logistic and laboratory support but also for technical guidance in the field.</p> <p>GSI informed that it has been providing technical and laboratory support to DMR Meghalaya, and assured for future assistance also; however, drilling activities need to be taken up by the state in the proposed items.</p> <p style="text-align: right;">(Action: DMR, Meghalaya)</p>
58.05.18	<p>Issue MII.16</p> <p>1. G4 stage survey of limestone deposits between Sajik Tampak and south of Aishi, Chandel District in Toposheet No. 83 H/16. GSI is requested to take up the programme.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>Considering the limited extent of limestone in the area GSI has not proposed any such item.</p>

	<p>2. Proposal for Ground Magnetic Survey in the Ophiolite of Apong, Kamjong Sub-Division, Ukhrul District, Manipur in Toposheet No. 83 L/5. GSI is requested to take up the programme.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>Based on the outcome of the investigation in the adjacent block (Yentem area proposed for FS 2019-20), the Ground Magnetic surveys in the requested area will be taken up by GSI in future.</p> <p>3. Preliminary Exploration for Chromium, Nickel and Copper in the Ophiolite of Yentem and Apong, Kamjong District, Manipur falling in the Toposheet No. 83 L/5. GSI is requested to take up the programme.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>A reconnaissance survey for Cr-Ni-Co has already been proposed by GSI in Yentem block for FS 2019-20. Investigation in other areas will be considered in future based on the result of FS 2019-20.</p> <p>4. Preliminary Exploration for Chromite in the Ophiolite of Pushing, Ukhrul District, Manipur falling in the Toposheet No. 83 K/8. GSI is requested to take up the programme.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>Investigation for Chromite is in progress in Gamnom, and Singcha blocks of Ukhrul District. Based on the result of the FS. 2018-20 programmes, investigation in the suggested areas will be considered.</p> <p>5. Preliminary Exploration for Limestone in the village TM Kasom, Shokpau and Yongphu, Kamjong District, Manipur falling in the Toposheet No. 83 L/5. GSI is requested to take up the programme.</p> <p style="text-align: right;">(Suggestion: DCI, Manipur)</p> <p>DCI Manipur is requested to take up the item. Technical guidance and analytical support will be provided by GSI.</p> <p style="text-align: right;">(Action: GSI/DCI, Manipur)</p>
58.05.19	<p>Issue-MII.17</p> <p>The draft Indian Standard Procedure (ISP) for Coal and Lignite 2017 has been prepared by the core group and unequivocally accepted by all the stakeholders of CGPB, Committee-V. The Indian Standard Procedure (ISP) for Coal and Lignite 2017 may be accepted however some changes need to be incorporated in the Indian Standard Procedure for Coal Reserve Estimation 2017 in view of MoC directive for implementation of</p>

	<p>advanced/modern techniques in coal exploration for completion of regional/detailed coal exploration in a short time frame.</p> <p style="text-align: right;">(Suggestion: MoC/CMPDI)</p> <p>After detailed deliberation, DG, GSI advised that the technicality of the matter regarding number of drill holes vs. geophysical exploration for detailed exploration vis-a-vis reserve estimation for Coal and Lignite shall be sorted out by CGPB Committee-V within one month and the final outcome may be intimated to MoC. MoC requested CGPB committee also to sort out the issue regarding area of influence for reserve estimation for both indicated and inferred category.</p> <p style="text-align: right;">(Action: MoC/CMPDI/CGPB Committee-V)</p> <p>MoC also informed that funding to the tune of 70-80 crores has been earmarked for coal exploration in north eastern states and requested all concerned states to submit proposals to CMPDI.</p> <p style="text-align: right;">(Action: All State DGMs in NER/MoC/CMPDI)</p>
58.05.20	<p>Issue-MII.18</p> <p>1. In the SGPB meeting held on 11-12-2017, GSI agreed to analyze Bauxite Samples free of cost which were sent to GSI accordingly. But an estimate of Rs. 1,36,290/- has been received from GSI, as an advance for the conduct of analysis of 25 bauxite samples. It is requested as to whether GSI shall analyze the samples free of cost.</p> <p style="text-align: right;">(Suggestion: DGM, Jammu & Kashmir)</p> <p>GSI informed that as per prevailing practice, samples of other agencies are analysed on cost basis following the guideline of SoC.</p> <p style="text-align: right;">(Action: DGM, Jammu & Kashmir; GSI, NR)</p> <p>2. Drilling for Limestone in Kharpur, Lissar, Sop area, Anantnag District, Jammu & Kashmir: GSI has already proposed Stage G3 investigation for limestone in the above area during FS 2019-20. It is proposed that the drilling will be carried out by DGM and financial aspect will be borne by GSI. The matter to be taken at higher level for decision as conveyed by GSI.</p> <p style="text-align: right;">(Suggestion: DGM, Jammu & Kashmir)</p> <p>This proposal is not acceptable as per the policy of GSI.</p> <p>3. G2 Level Investigation in Matyan Block of DGM, Jammu & Kashmir. G3 level investigation has been completed at Matyan, Kargil by the DGM. It was discussed that the drilling machines and manpower shall be utilized from DGM and financial aspect shall be managed by GSI.</p>

	<p style="text-align: right;">(Suggestion: DGM, Jammu & Kashmir)</p> <p>DGM, Jammu & Kashmir is advised to submit the proposal to the Technical Cost Committee, NMET to get the job done by NMET fund. DGM, J&K agreed to the suggestion.</p> <p style="text-align: right;">(Action: DGM, J& K/NMET)</p> <p>4. Drilling for Limestone of Baila Formation in Darhal-La area, Rajouri District, Jammu & Kashmir. It was informed that Darhal investigation for limestone (G4 level) is under progress and GSI is planning for exploratory drilling in the area. DGM requires that the deposit could be worked out on G2/G1 level so as to get the block ready for auction purpose.</p> <p style="text-align: right;">(Suggestion: DGM, Jammu & Kashmir)</p> <p>After G4 stage of investigation if it becomes possible to demarcate a potential block, then GSI will develop the block definitely to G3 followed by G2 stage investigation for auctioning by state govt.</p>
58.05.21	<p>Issue-MII.19</p> <p>1. Reservation of following areas to NMDC under Section 17A (2) of Mines & Minerals (Development & Regulation) Amendment Act, 2015 for exploration & prospecting after the preliminary (G4 stage) exploration carried-out by GSI, SU: Telangana during FSP 2019-20:</p> <p>(i) Detailed survey and exploration for Diamond in Mahabubnagar, Nagarkurnool & Wanaparthy Districts.</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>GSI apprised that for the ensuing field season 2019-20, it has proposed two G4 items for primary source rock of diamond, one in parts of Mahabubnagar, Jogulamba Gadwal and Wanaparthy Districts and the other in Thoodukurthy block, Wanaparthy and Nagarkurnool districts, Telangana.</p> <p>(ii) Gold, Tungsten, REE & RM mineralization in Gadwal Schist Belt, Jogulamba-Gadwal District.</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>As per the request of DMG, Telangana, GSI has proposed two G4 projects in Gadwal Schist Belt for investigation of Gold, REE, tin and tungsten mineralisation, one in Atkur area in Jogulamba Gadwal and Wanaparthy Districts and another in Dharur-Dornala Block in Jogulamba Gadwal district, Telangana. These items will be taken up during FS 2019-20.</p> <p>(iii) Base metals exploration in Gadwal Schist Belt, Jogulamba-Gadwal District.</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p>

GSI informed that it has proposed one STM item in Gadwal Schist belt for FS 2019-20 with an objective of search for possible base metal, gold and REE mineralisation. GSI plans to take up more such STM items in Gadwal Schist Belt in coming years.

DMG, Telangana agreed to all the proposals from GSI.

2. Reconnoitary survey for Diamondiferous Kimberlites pipes in Suryapet District by NMDC Ltd.

(Suggestion: DMG, Telangana)

NMDC agreed to carry out the proposed survey.

In this context, DG, GSI stated that GSI is not interested to handover any regionally explored blocks to any other agency for detailed exploration as GSI has skill and capacity for developing any potential mineral block upto G2 stage.

NMDC may take up any programme at G4 stage itself and may develop further into G3 & G2 stage.

(Action: DMG, Telangana/NMDC)

3. Request the Ministry of Mines, Govt. of India to take-up with MoEFCC for early Forest Clearance enabling commencement of exploratory drilling by the Atomic Mineral Directorate for Exploration and Research for Uranium deposits in 4 blocks covering total 83 sq. km (38/38/3/4 sq. km) area in Narayanpur, Udimilla and Amrabad blocks (Amrabad Tiger Reserve), Nalgonda & Mahabubnagar Districts.

(Suggestion: DMG, Telangana)

MoEFCC conveyed that they have not received the proposal on Amrabad Tiger Reserve.

DG, GSI requested DMG Telangana to submit the proposal directly to MoEFCC for Forest Clearance.

(Action: DMG, Telangana & MoEFCC)

4. Regional survey for Phosphate, Apatite, Potash, Pyrite, Glauconite and associated minerals over an extent of 1357.08 sq. Km. in Warangal Urban District

(Suggestion: DMG, Telangana)

GSI will explore the possibilities to formulate programmes provided further technical information is received from DMG, Telangana.

(Action: GSI/DMG, Telangana)

5. Sharing of mineral investigation/exploration reports by the organizations/agencies involved in Telangana State with the Dept. of Mines & Geology for creation of State Repository and for coordination with the

	<p>National Repository at GSI.</p> <p>The Atomic Mineral Directorate for Exploration and Research, Hyderabad shall also share the exploration reports not having any strategic significance in terms of potentiality for Uranium mineralization so as to avoid repetitive exploration by the State DGM.</p> <p style="text-align: right;">(Suggestion: DMG, Telangana)</p> <p>GSI stated that in 2016, GSI handed over 49 geological reports to the Govt. of Telangana. In 2017, GSI took up investigation of three prospective limestone blocks at the instance of DMG, Telangana in the gap areas of existing limestone concessions in Suryapet District of Telangana and the GSI report was handed over on 12.09.2017 to MECL, which has proved cement grade limestone. In 2018, GSI handed over four reports of iron ore investigations (G4) to Govt. of Telangana.</p>
<p>Discussion on issues raised by stakeholders pertaining to Mission-III activities of GSI</p>	
<p>58.05.22</p>	<p>Issue-MIII.1</p> <p>NGCM data uploaded by GSI in public domain could not be downloaded and after introduction of OCBIS it is becoming difficult to access the data base. Therefore, it is requested to handover degree sheet wise soft copy of NGCM data in GIS format for planning of future exploration programme.</p> <p style="text-align: right;">(Suggestion: Directorate of Geology, Odisha)</p> <p>GSI informed that the Data dissemination policy of GSI has been notified and it will come into effect from 1st March, 2019. All registered users of GSI Portal will be able to download data from that date.</p>
<p>Discussion on issues raised by stakeholders pertaining to Mission-IV activities of GSI</p>	
<p>58.05.23</p>	<p>Issue-MIV.1</p> <p>Micro-zonation mapping of the important cities of Arunachal Pradesh: Eastern Himalaya is tectonically active and falls under the Zone-V, due to which frequent earthquakes are being occurred since the ancient period in the area. Most of the earthquakes occurred along major thrusts and along associated thrust. Major cities of Arunachal Pradesh are bounded in between major thrust and their associated thrusts such as Main Boundary Thrust and Himalayan Frontal Thrust etc., which causes damage to building and mega structures. Therefore, it felt necessary to carry out detailed micro-zonation mapping of the major cities of Arunachal Pradesh such as Itanagar, Pashighat, Likabali, Tezu etc. In this regard, it is requested to GSI to carry out micro-zonation mapping of the important cities of Arunachal Pradesh in phased manner.</p> <p style="text-align: right;">(Suggestion: DGM, Arunachal Pradesh)</p> <p>GSI informed that Seismic micro-zonation study of Itanagar has already been carried out. A two-year item (2019-21) on seismic microzonation has been</p>

	proposed for Pashighat, Arunachal Pradesh by GSI, NER. Other cities will be taken up subsequently.
58.05.24	<p>Issue-MIV.2</p> <p>Development of codes/guidelines for the construction of houses and infrastructure in hilly regions of Indian Himalayan Region (IHR), Western Ghats and other hills by the nodal agency (GSI) for landslide.</p> <p style="text-align: right;">(Suggestion: NDMA)</p> <p>Bureau of Indian Standard (BIS) regularly publishes codes/guidelines for construction of buildings, cutting of slopes, construction material, retaining structures etc. GSI is a member of CED 56 committee dealing with landslide zonation and is ready to contribute in this matter.</p>
58.05.25	<p>Issue-MIV.3</p> <p>1. Geological/Geo-technical study at Tathangchen area to find out vulnerability and plans for mitigation.</p> <p style="text-align: right;">(Suggestion: DMMG, Sikkim)</p> <p>GSI stated that the proposal from DMMG on 03.01.2019 pertaining to geological/geotechnical study of Tathangchen area and Site specific study in parts of Mangan town, Sikkim is under consideration by GSI. GSI further added that two meso-scale landslide susceptibility zonation items are being taken up during FS 2019-20 at the request of DMMG, Sikkim.</p> <p>2. Protection of Mangan Town from Landslides.</p> <p style="text-align: right;">(Suggestion: DMMG, Sikkim)</p> <p>GSI informed that it has carried out Meso-scale Landslide Susceptibility mapping in parts of Mangan and has identified susceptibility zones. The request for site specific studies is being examined by GSI.</p> <p style="text-align: right;">(Action: GSI, NER)</p>
58.05.26	<p>Issue-MIV.4</p> <p>Issue: 1. Proposal pertaining to <u>Medical Geology</u>:</p> <p>GSI should provide (like the USGS) scientific and technical expertise, leadership and co-ordination in addressing issues covering quality of Nations' Water Resources both in Urban and Rural areas. GSI can concentrate on inorganic chemicals that pollute waters and where laboratory facilities already exist to analyse these selected trace elements in ppb/ppt range. Following in organic suite of elements may be taken up initially: Hg, As, Cd, Pb, Al, Se, Ba, Cr, F (+ Nitrates and Nitrites). Six important Metros of India may be taken up initially (New Delhi, Bombay, Kolkata, Chennai, Hyderabad, Bangalore). It will be of great importance in the sub-discipline of Medical Geology and will create a data-base for human-health based on</p>

	<p>water quality studies. State Departments and a few Central organizations dealing with water resources have done precious little work so far on water quality studies. GSI should take lead in this area by taking up such a national project of immediate societal benefit, as other geological surveys are doing in advanced nations.</p> <p style="text-align: right;">(Suggestion: Geological Society of India)</p> <p>GSI informed the house about its National Programme on Geochemical Mapping on 1:50,000 scale based on stream sediment sampling (mostly 1 km x 1 km grid), in which 64 elements (major oxides, minor oxides, trace elements, REE and other significant elements including the 9 elements mentioned in the agenda point) are being analyzed and a national geochemical database is being generated. Through NGCM, GSI is planning to cover the entire accessible landmass of India. Along with stream sediments, one sample from water body and one sample from regolith and C-horizon is also getting analyzed in each 5' x 5' grid. The data can be used as an input for Medical Geology and Environmental studies.</p> <p>GSI is about to take up 15 items on Environmental and Medical Geology during the coming FS: 2019-20.</p>
<p>58.05.27</p>	<p>Issue-MIV.5</p> <p>1. Methodology for mapping/monitoring the nuclear pollution</p> <p style="text-align: right;">(Suggestion: CGWB)</p> <p>It was informed that GSI has not carried out mapping / monitoring of nuclear pollution. CGWB may contact Atomic Energy Regulatory Board in this regard.</p> <p>2. Age determination of samples collected from Ground Water Exploratory wells.</p> <p style="text-align: right;">(Suggestion: CGWB)</p> <p>The facilities of dating water samples (by using Tritium and Deuterium) is currently not available with GSI. GSI can provide 14C isotopic date of carbonaceous samples if present in the alluvium, provided the total weight of carbon is > 2gm.</p>
<p>Discussion on issues raised by stakeholders pertaining to Mission-V activities of GSI</p>	
<p>58.05.28</p>	<p>Issue-MV.1</p> <p>Officers of the Directorate of Geology, Odisha may be involved in the Orientation course conducted by GSI & thematic mapping.</p> <p style="text-align: right;">(Suggestion: Directorate of Geology, Odisha)</p> <p>GSI informed that GSITI conducts orientation courses every year for newly recruited Geoscientists of GSI and also accommodates nominated officers from State DMGs/DGMs as per their request.</p>

Discussion on general issues raised by stakeholders	
58.06.01	<p>Issue-GNI.1.1</p> <p>As per the Minutes of the 38th SGPB Meeting of DGM, Nagaland, it was resolved that DGM, Nagaland in collaboration with GSI, SU: Manipur&Nagaland would take up ‘Pilot project on the detailed Landslide investigation/exploration along with implementation of scientific remedial/mitigation measures as model for the rest of the state of Nagaland’ under Central fund assistance. Two consecutive meeting between GSI and DGM, Nagaland were held and it was decided that a concept note/proposal shall be prepared by carrying out preliminary geological investigations in 4-5 landslide areas in and around Kohima (State headquarter). If fund is made available, Detailed Project Report (DPR) would be prepared to propose financial assistance for executing of successful implementation of the project.</p> <p style="text-align: right;">(Suggestion: DGM, Nagaland)</p> <p>GSI stated that in-house meeting has been conducted with DGM, Nagaland and during the meeting, issues regarding the proposal of different participating units (concerned organizations), initial field visit, initial expenditure, selection of priority-wise study area, etc. have been discussed. GSI is ready to extend technical support and cooperation to the State Govt. in preparation of DPR but financial assistance to the state DGM is not possible.</p> <p>Additional Secretary, Mines suggested the Govt. of Nagaland to approach Ministry of Development of North Eastern Region for financial assistance to the state DGM, under intimation to MoM and GSI.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NER; DGM, Nagaland)</p> <p>Issue-GNI.1.2</p> <p>DGM, Nagaland sought clarification on providing assistance to State DGMs in the form of equipment and machineries for Capacity Building and also procurement of capital equipment through NMET fund.</p> <p style="text-align: right;">(Suggestion: DGM, Nagaland)</p> <p>NMET Secretariat conveyed that providing of assistance in form of equipments and machineries for Capacity Building and also procurement of capital equipments is not in accordance with objectives and functions of NMET detailed in Rule 9 of NMET Rules, 2015.</p> <p>Issue-GNI.1.3</p> <p>CMPDI has provided 1 (one) Diamond core drill unit i.e. D/core drilling Rig, Triplex Reciprocating Pumping set and Centrifugal Water Pump. However, the required equipments, accessories and tools attached with the machines</p>

	<p>were not provided. Therefore, the department will not be in a position to deploy the unit. As such, fund for procurement of the required materials amounting to Rs. 1,21,31,000/- may be provided for completion of the project in time.</p> <p style="text-align: right;">(Suggestion: DGM, Nagaland)</p> <p>CMPDI apprised that they have already provided required fund to DGM, Nagaland through central scheme of MoC.</p> <p>Issue-GNI.1.4</p> <p>During the meeting with the Secretary, MoC; Chief Secretary, Govt. of Nagaland; officials of CMPDI, DGM, Nagaland and NSMDC, Nagaland, in the early part of 2018, it was decided that NSMDC in collaboration with DGM, Nagaland would prepare a detailed project Report on Exploratory Model Coal Mine in Nagaland.</p> <p>Additional Secretary, Mines requested CMPDI to discuss the unresolved issues with DGM, Nagaland and take necessary action accordingly.</p> <p style="text-align: right;">(Action: CMPDI; DGM, Nagaland)</p>
58.06.02	<p>Issue-GNI.2</p> <p>Inclusion of representative of NMET as a permanent invitee on the five sub-committees of CGPB.</p> <p style="text-align: right;">(Suggestion: NMET Secretariat)</p> <p>GSI responded that the submitted proposal is under consideration and the decision will be communicated to NMET in due course.</p> <p style="text-align: right;">(Action: GSI/ NMET)</p>
58.06.03	<p>Issue-GNI.3</p> <p>Transfer of NMET contribution by State Governments in Consolidated Fund of India as per approved Accounting procedure.</p> <p>The CGPB meeting is being attended by the representatives of State Governments. The States may be asked to update the Ministry of Mines about the status of NMET due to be transferred from their respective States in Central Government account and the difficulty, if any, they are facing in effecting such transfers.</p> <p style="text-align: right;">(Suggestion: NMET Secretariat)</p> <p>DMG, Telangana responded that the State Govt. is not facing any difficulty in migration and adoption of new accounting procedure except that the Accountant General office is taking considerable time for transfer of the amount, with the new mechanism.</p>
58.06.04	<p>Issue-GNI.4.1</p> <p>Assam is rich in minerals but yet to do the detail survey. Therefore if the</p>

Ministry of Mines can provide the NMET fund as the advance contingency, the State will be able to start the survey work in detail.

(Suggestion: DGM, Assam)

NMET Secretariat mentioned that DGM, Assam may submit the exploration proposal in the approved format to the Technical-cum-Cost Committee (TCC) of NMET for technical and cost analysis. If the proposal is in order, the TCC recommends the proposal to the Executive Committee (EC) of NMET for approval. The NMET fund is being reimbursed for the work completed in the approved project. Presently, there is no provision to provide advance payment.

Issue-GNI.4.2

As per the Mineral Auction (and Mineral Content) Rule, 2015 every block for auction shall have DGPS coordinates. Therefore, if Ministry of Mines provide training of DGPS survey for the surveyor and geologists of DGM, Assam, then it will definitely help the Directorate to achieve the target for mineral exploration.

(Suggestion: DGM, Assam)

GSI conveyed that DGM, Assam discussed the issue with RTI, GSI, NER and accordingly a training programme on “Refresher course on Surveying using Total Station and DGPS and data processing using GIS software” has been proposed to be conducted at Shillong during FS 2019-20 (tentatively in April 2019), where the nominated officers of State DGM, Assam would be accommodated.

Issue-GNI.4.3

There is a shortage of machinery in DGM, Assam therefore if Ministry of Mines provide fund from NMET to procure truck mounted core drilling rig, then it will develop the infrastructure of DGM, Assam for exploration of minerals.

(Suggestion: DGM, Assam)

NMET Secretariat has pointed out that the support to develop infrastructure of State DGM is not in accordance of the Objective and Functions of the Trust as detailed in Rule 9 of NMET Rules, 2015.

Issue-GNI.4.4

The Directorate of Geology and Mining facing problems for handling the NMET fund. If Ministry of Mines can deploy officer to train the officers of Directorate of Geology and Mining, Assam and lease holder to adopt the procedures to be followed to transfer the amount collected in the Head of account “8449-Other Deposit;123- National Mineral Exploration Trust Deposits” to Consolidated Fund of India.

(Suggestion: DGM, Assam)

	<p>NMET Secretariat stated that DGM, Assam may send the officer(s) dealing with the matter to NMET Secretariat to clear doubts related to transfer of NMET contribution to CFI.</p> <p style="text-align: right;">(Action: DGM, Assam)</p>
<p>58.06.05</p>	<p>Issue-GNI.5</p> <p>Protection of National Geological Monuments: GSI has identified and declared a number of geological, geomorphological and mineral bearing areas as National Geological Monuments. There are four such monuments in Karnataka. In the case of Maradihalli Pillow lava near Chitradurga and Columnar lava of Malpe near Udupi, the Govt. of Karnataka transferred the land to GSI for preservation of Geological monuments. Recently it was noticed that some of the outcrops near the Peddapalli village have been removed to form a Housing Layout. Presently, GSI does occasional replacement of the boards and has no mechanism to protect the monuments. GSI should provide necessary fund to erect fence/compounds to protect the monuments and also interact regularly with the local village committees to educate them about the importance of the monument and the need to preserve. The issue may be brought to the notice of all District collectors wherever such Geological monuments are located.</p> <p style="text-align: right;">(Suggestion: Geological Society of India, Bengaluru)</p> <p>GSI appreciated the concern and suggestion of Geological Society of India in this regard. GSI informed the house that Govt. of Karnataka has already handed over the land to GSI in St. Mary Island and Maradihalli and there are staff for watch and ward duty to protect the sites. Lalbagh Garden, as stated, is already protected by Govt. of Karnataka. In case of Kolar pyroclastics, GSI has already taken initiative and discussed with the Deputy Commissioner, who promised to give the Govt. land to GSI but compensation has to be arranged for the private land portion.</p> <p>Additional Secretary, Mines requested DG, GSI to take up the matter with the Govt. of Karnataka to resolve the issue.</p> <p style="text-align: right;">(Action: GSI)</p>
<p>58.06.06</p>	<p>Issue-GNI.6</p> <p>Collaborative work by DMR, GSI and AMD in identifying geologically important sites for development of Geo-Tourism in the state.</p> <p style="text-align: right;">(Suggestion: DMR, Meghalaya)</p> <p>GSI informed that it is coordinating with the Director, Tourism, Govt. of Meghalaya to develop Geo-Tourism in the state. A meeting was held with the Director, Tourism on 31.10.2018 wherein proposals for developing geotourism/geo-heritage sites in association with the Govt. of Meghalaya has been submitted. A Concept note on declaring and preserving (1) Cretaceous – Tertiary (K/Pg) Boundary in the Therriaghat (Um Sohryngkew River) Section, Meghalaya and (2) Mawmluh Cave, Cherrapunjee, Meghalaya has been submitted to the Chief Secretary, Govt. of</p>

	<p>Meghalaya on 16.11.2018 and 09.08.2018 respectively.</p> <p>In this context, Additional Secretary, Mines advised that DMR, Meghalaya may submit an integrated proposal to the Ministry of Tourism and Ministry of DONER, Govt. of India with intimation to MoM. He stated that MoM will take up the issue with the Chief Secretary, Govt. of Meghalaya, if required.</p> <p style="text-align: right;">(Action: DMR, Meghalaya)</p>
PLENARY SESSION-II	
Placing of Proposals of GSI pertaining to FS 2019-20 by Director General, GSI	
58.07.01	<p>DG, GSI presented the proposals of GSI for FS 2019-20 and conveyed the following:</p> <p>(1) During the ensuing year 2019-20, GSI is going to take up 897 regular Field Season Programmes which includes 167 programmes of Mission-I (Baseline Geoscience Data Generation), 390 programmes of Mission-II (Natural Resource Assessment), 49 programmes of Mission-III (Geoinformatics), 172 programmes of Mission-IV (Fundamental and multidisciplinary geosciences) and 119 programmes of Mission-V (Training and Capacity Building).</p> <p>(2) Taking up 390 programmes under mineral exploration almost doubles last years' Mission-II programmes, thus making a quantum jump in the field of mineral exploration activities by GSI. It includes 344 items on Mineral Resource Assessment, 27 on Natural Energy Resources and 19 others.</p> <p>(3) GSI is going to take up 93 programmes at the request of State Governments and SGPB/CGPB/VAQ recommendations, 6 programmes in collaboration with national institutes like ONGC, HSHDB, ISI, DTRL etc. and 3 programmes will be taken up with international collaborators like British Geological Survey (BGS) and Geoscience Australia (GA). 4 sponsored training courses will be taken up with ISRO and MEA and there will be 20 sponsored geotechnical projects with various stakeholders like NWDA, CWC, NTPC, Railways, NALCO etc.</p> <p>(4) Finalization of programmes has taken into account the priorities and importance set forth by the Government of India through its various policy decisions and also on the basis of the recommendations of CGPB Committees and State Geological Programming Board (SGPB) meetings.</p> <p>In this context, DG, GSI emphasized that programmes pertaining to Environmental and Medical Geology are to be taken up in FS 2019-20 in parts of Bihar, Uttar Pradesh and West Bengal.</p> <p>Additional Secretary, Mines requested ADG & HoD, GSI, NER and ADG & Head, Mission-II to meet the Chief Secretary of Arunachal Pradesh to sort out various issues pertaining to the state and submit a status note to MoM.</p> <p style="text-align: right;">(Action: ADG & HoD, GSI, NER and ADG & NMH-II, GSI)</p> <p>On a query raised by DGM, Chhattisgarh, DG, GSI responded that GSI is giving thrust on REE & RM over bulk minerals in FS 2019-20.</p>

	<p>As per the demand of the stakeholders, Additional Secretary, Mines suggested that GSITI may conduct a brief training course on forest clearances.</p> <p style="text-align: right;">(Action: Dy. DG & HoD, GSITI)</p> <p>All the proposed field season programmes of GSI pertaining to FS 2019-20 were approved by the CGPB.</p>
<p>Presentation on “Soil Geochemical Map of India: A tool for Mineral Prospecting” by M. N. Mishra, Dy. DG, GSI, WR</p>	
58.07.02	<p>Shri M.N. Mishra, Dy. DG, GSI, WR presented talk on “Soil Geochemical Map of India: A tool for Mineral Prospecting”. The salient points of the presentation are as follows:</p> <ul style="list-style-type: none"> • Compilation of the regional soil geochemical data has been initiated and will continue in future. • The regional soil geochemical maps nicely depict the concentration and spatial distribution of elements across the country. • Though the data is regional in nature, the maps identify a large number of areas with geochemical anomaly where further geochemical investigations for environmental studies and resource exploration may be launched. • Regional soil geochemical map may be integrated with regional geophysical, geological, & remotely-sensed datasets for mineral prospectivity mapping. • Future studies required to have new insights into the dataset through EDA, Empirical cumulative distribution plots, Multivariate analysis, Variography etc.
<p>Presentation on “36th IGC – An Overview of Progress” by Dr. L.P. Singh, Director, DGCO</p>	
58.07.03	<p>Dr. L.P. Singh, Director, DGCO presented an overview on 36th International Geological Congress (IGC) which will be held from 2nd to 8th March, 2020 at New Delhi with the theme of “Geosciences – The Basic Science for a Sustainable Future”. As the nodal organization for 36thIGC, GSI is spearheading various preparatory activities viz. science, field trips, legacy programme etc. of the congress and has pivotal role in its organization. The congress is likely to attract about 8000 international delegates and shall be having more than 60 parallel scientific sessions, 71 field trips across the Indian subcontinent. Known as Olympics of Geosciences, IGC is returning to Indian soil after a gap of 56 years. The scientific programmes of the IGC will include plenary lectures, symposia on multiple geoscientific themes, workshops, short courses and field trips, release of publications, newsletters / bulletins etc.</p>

CONCLUDING SESSION	
Summary of discussion by Director General, GSI	
58.08.01	<ol style="list-style-type: none"> 1. Summing up the day's proceedings, DG, GSI remarked about the new trend emerging in CGPB-participation by agencies other than GSI viz. MECL, HZL, JNARDDC in the exhibition which was also appreciated by the Hon'ble Minister of State for Mines. 2. 7 publications including 2 from other agencies were released during the meeting. In addition to this, 20 mineral investigation reports were handed over to the stakeholders. These reports will generate revenue worth Rs. 79,560 Crore. 3. Secretary, Mines in his address has highlighted the importance of geosciences in societal issues and development of the country and appreciated the efforts of GSI. 4. Hon'ble Minister of State for Mines has highlighted the importance of geology for common man. He has further directed that the contribution of mining sector to GDP has to be raised to 8-9% from its present rate which is a mammoth challenge for mineral investigation and exploration agencies. All stakeholders need to rise to the occasion and contribute. 5. There will be a quantum jump in the M-II activities of GSI during field season 2019-20 during which 390 field items will be taken up. 6. The efficacy of geochemical mapping was presented by GSI on the basis of 5 elements which will yield more interesting results with integration of different dataset which is likely to provide more thrust to mineral exploration activities. 7. India is going to host the 36th session of International Geological Congress (IGC) in 2020. All need to pool in their collective efforts to meet the challenges and make this event a successful one. <p>He extended sincere thanks to the Secretary, Additional Secretary and Joint Secretary, Ministry of Mines for their constant monitoring and guidance in the activities of GSI.</p>
Concluding Remarks by Dr. K. Rajeswara Rao, Additional Secretary, Mines	
58.08.02	<p>Dr. K. Rajeswara Rao, Additional Secretary, Mines in his concluding remarks expressed happiness over the overwhelming response from all participants in the proceedings of the meeting.</p> <p>He complimented Director General, GSI and his team for successfully steering the CGPB activities which is the culmination of yearlong consultative process involving SGPB meetings by 28 states, deliberations of 12 CGPB committees involving a wide range of stakeholders.</p> <p>Appreciating the good work carried out by GSI, he stated that the 58thCGPB has seen the emergence of a new GSI as evident in 100% increase in its mineral exploration items. This challenge can be successfully met with participation of</p>

states, regulatory agencies and other stakeholders.

GSI has contributed to the nation through its dedicated workforce and commitment to the nation's cause which is appreciated by the Ministry of Mines.

There is reasonable synergy between the states and GSI and there is wide appreciation of initiatives undertaken by GSI to resolve the issues of the states. GSI cannot work in isolation and cooperation of states and other stakeholders is essential for fruitful results. SGPB has to be a meaningful platform.

Interaction of GSI at district and state level needs to be stepped up. Additional Secretary, Mines advised that the DG and ADGs of the regions communicate with the Chief Secretaries of the states highlighting the activities of GSI and upscale the activity and visibility of GSI, with copies marked to the Principal Secretaries to the Chief Minister for effective follow up action on the issues to be addressed.

(Action: GSI)

The status of VAQ will be reviewed after completion of mandated 300 days. Every recommendation of VAQ has to be achieved and GSI needs to follow up the recommendations to meet the milestones in a time bound manner with active participation of all stakeholders.

(Action: GSI)

Basic facilities for camp management and lady geologists of GSI are priority and to ensure this, Ministry of Mines will delegate powers as per the proposal submitted by ADG (Finance). By 15th March, 2019 a satisfactory system for providing basic facilities for GSI camps and lady geoscientists will be in place.

Due to its geostrategic importance, the requirements of Northeastern region should be given special attention. Joint Secretary, Mines will be visiting Northeastern region for a joint meeting along with the GSI officers of the region. DG, GSI may look into the matter for extending every possible support to the Northeastern states.

GSITI will organise customized courses as per the requirements of the Northeastern states. GSI will also extend support to them for needs like developing proposals, resolving technical issues. The states may communicate with GSI regarding their needs.

(Action: GSITI/ DGMs of Northeastern states)

MECL may take necessary steps to meet the demand and requirement of Arunachal Pradesh.

(Action: MECL)

Appreciating the proposals for FS 2019-20, active participation of the stakeholders and deliberations at 58th CGPB meeting, Additional Secretary, Mines invited everyone to work in synergy towards the common goal of generating more national wealth.

Last but not the least, he appreciated elaborate deliberations on numerous issues in the meeting and thanked all for active participation with the objective to achieve the vision of development, conservation and augmentation of mineral resources

	and make our nation self-reliant in mineral resource needs.
Expressing solidarity with the 40 brave soldiers who laid down their lives in Pulwama, J&K for the cause of the nation, the house expressed its deepest condolences to the families and observed one minute silence in the honour and memory of the martyres.	
Vote of thanks	
58.08.03	The meeting ended with vote of thanks proposed by Shri R.S. Garkhal, ADG (PSS), GSI & Member Secretary, CGPB.

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