

**MINUTES OF THE 62<sup>nd</sup> MEETING OF THE  
CENTRAL GEOLOGICAL PROGRAMMING BOARD**

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

**(09<sup>th</sup> February 2023)**

<b>62.01.00</b>	The 62 <sup>nd</sup> meeting of the Central Geological Programming Board (CGPB) was held on <b>09<sup>th</sup> February 2023</b> at A.P. Shinde Symposium Hall, Indian Council of Agricultural Research (ICAR), NASC Complex, Pusa, New Delhi. The list of participants is given at <b>Annexure-I</b> .
<b>62.01.01</b>	Shri Vivek Bharadwaj, Secretary, Mines & Chairman, CGPB inaugurated an exhibition showcasing Adoption of Green Mining Technologies by Indian Companies, Advancement in Exploration of Deep seated /Concealed Deposits, New Technology in Marine/Off-shore Exploration, Aero- Geophysical Survey for Mineral Targeting and promotion of Geoheritage Sites in India in the presence Dr. S. Raju, Director General, Geological Survey of India (GSI); Shri Sanjay Lohiya, IAS, Additional Secretary, Mines; Shri Janardan Prasad, Additional Director General, GSI and other senior officers of GSI and delegates of the 62 <sup>nd</sup> CGPB Meeting. Apart from GSI, two other organisations, viz. Mac Phar International Pvt. Limited and Sander Geophysics India Ltd. participated for the first time in the exhibition to display recent geoscientific activities and achievement in aero-geophysical surveys for exploration and mining sectors in the country.
<b>INAUGURAL SESSION</b>	
<b>Welcome address by Dr. S. Raju, Director General, GSI</b>	
<b>62.02.00</b>	Dr. S. Raju, Director General, GSI extended a hearty welcome to Shri Vivek Bharadwaj, IAS, Secretary, Mines; Shri Sanjay Lohiya, IAS, Additional Secretary, Mines; Shri Janardan Prasad, Additional Director General, GSI; delegates and participants of the Central Ministries / organizations, PSUs, State Departments, academic institutions, private entrepreneurs and media present in the 62 <sup>nd</sup> 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-organizational coordination.
<b>Presentation on “Highlights of GSI initiatives” by Director General, GSI</b>	
<b>62.02.01</b>	Director General, GSI presented “ <i>Highlights of GSI initiatives</i> ” and conveyed the following: <ul style="list-style-type: none"> <li>1. Since MMDR Amendment Act, 2015, GSI has handed over 178G2/G3 Geological Reports and 252 Geological Memorandum for non-fuel minerals till</li> </ul>

	<p>date for facilitating in auctions. During the 62<sup>nd</sup> CGPB, GSI has handed over 35 Geological Memorandum &amp; 16 G2/G3 Geological Reports for non-fuel minerals and 17 Geological Reports for Coal and Lignite.</p> <ol style="list-style-type: none"> <li>2. Keeping pace with current thrust areas of exploration, GSI has taken up 125 projects on Strategic &amp; Critical Minerals in current FS 2022-23. The endeavour to search for concealed and deep seated deposits is manifested through Regional Mineral Targeting and Uncover projects in potential terrains across the country. The successful installation of the HR-SIMS will provide further fillip to fundamental research and quest for new deposits in GSI.</li> <li>3. GSI always responds proactively to geo-hazard across the country. GSI has completed a comprehensive landslide hazard assessment of Kinnaur district in Himachal Pradesh comprising 12 site-specific studies at 1:1K and susceptibility mapping of 6 critical road corridors and Reckong Peo town at 1:10K. GSI's prototype regional Landslide Early Warning System (LEWS) is being evaluated and tested in two pilot areas in India (Darjeeling and Kalimpong districts, West Bengal, and the Nilgiris district, Tamil Nadu). GSI has taken up similar initiative in other landslide-prone States like Uttarakhand, Sikkim etc. in a phased manner.</li> <li>4. GSI is spearheading the NGDR project, which is a multi-stakeholder geoscience data repository being developed by BISAG-N and 52 stakeholders are already on board.</li> <li>5. Furthering GSI's pursuit towards digitisation, GSI introduced e-Office and SPARROW from January, 2023.</li> <li>6. Transformational changes are being enabled through R&amp;D innovations, stakeholder engagement, co-ordination with several other departments within our country and institutions like Geoscience Australia (GA), British Geological Survey (BGS), University of Florida (UoF), IIT Kharagpur, IIT Bombay, IIT Roorkee, Directorate General of Hydrocarbons (DGH), National Geophysical Research Institute (NGRI), Mineral Exploration Consultancy Limited (MECL) etc., through bilateral and multilateral framework.</li> <li>7. GSI is also deeply committed towards preservation of Geoheritage monuments and Geotourism sites. A comprehensive informative web map depicting 90 Geoheritage / Geotourism sites is available in GSI portal. GSI is also in the final stage to inaugurate the Gallery 1 of Gwalior Museum. MoU/Agreement has been signed with MPTB for a Geo-park near Bhedaghat at Jabalpur, Madhya Pradesh.</li> <li>8. This year assumes historical significance as India holds the Presidency of the G20 from December 1, 2022 to November 30, 2023. GSI seeks to play an important role by finding sustainable development solutions for the wellbeing of all, and in doing so, manifest the true spirit of 'Vasudhaiva Kutumbakam' or the 'World is One Family'.</li> </ol>
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<b>Address by Shri Sanjay Lohiya, Additional Secretary (Mines)</b>	
<b>62.02.02</b>	<p>Shri Sanjay Lohiya, IAS, Additional Secretary, Mines began his address by welcoming Shri Vivek Bharadwaj, IAS, Secretary, Mines; Dr. S. Raju, Director General, GSI; Shri Janardan Prasad, ADG &amp; HoD, GSI, SR; Senior officers of GSI; delegates and participants of the Central Ministries / organizations, PSUs, State Departments, academic institutions and private entrepreneurs.</p> <p>At the onset, he emphasized on the importance of CGPB meeting to boost geological fraternity among all stakeholders. He apprised that in 2020 &amp; 2021 CGPB meeting could not be held in physical mode due to COVID pandemic. Last year, 61st CGPB meeting was held in physical mode in the month of March, 2022. He appreciated the conduct of the CGPB meeting this year in February, 2023. He further requested DG, GSI to prepone CGPB meeting to the month of January if possible in coming years so that GSI's FSP can be finalized well in advance so that FSPs can be started from April.</p> <p>Additional Secretary, Mines requested DG, GSI and other senior officers of GSI for communicating the approved FSP: 2023-24 to the field units for initiating the projects at the earliest. He further requested DG, GSI to take up some additional programs wherever feasible. He apprised that the total number of projects in upcoming FS 2023-24 is around 950. He desired that GSI may take up some more items by July, 2023 so that the total number of programs of GSI may be increased up to 1000.</p> <p>As far as the policy environment is concerned, dramatic change was made and implemented in 2015, wherein auction was introduced as a mode of allocation in mineral concession. He emphasized that proper Geological Reports are needed for auctioning of the blocks. In May 2020, as a part of AtmanNirbhar Bharat, it was announced by Government of India that 500 blocks will be auctioned. This ambitious target was decided by Hon'ble Minister, Mines. To achieve this target, it was requested to GSI to speed-up the geological work. He apprised that after amendment of the MMDR Act in March, 2021, around 182 blocks were put on auction against which 46 blocks were auctioned in 2021-22. Similarly, in 2022-23, around 150-160 blocks were put on auction against which 81 blocks were auctioned and rest of the blocks are under the various stages of auctioning. He further informed that the exploration norms have been relaxed in March 2021 by providing Composite License at G4 level and for embedded minerals at G3 level. Ministry of Mines and GSI should be proud of the fact that 252 Geological Memorandums have already been handed over till date. He hoped that GSI will continue to generate more mineral blocks to speed up the auctioning process.</p> <p>He advised GSI to expedite NAGMP project to identify more potential areas for exploration. He further reminded GSI that proactive steps need to be taken for procurement of services and goods so that baseline data generation can be done in fast track mode.</p>

	<p>Additional Secretary, Mines requested the State Governments that (i) the areas not explored by GSI are open for participation by other agencies (ii) private exploration agencies need to be encouraged and new ideas of these agencies need to be taken into consideration (iii) the proposals of private exploration agencies for taking exploration programs may be submitted to NMET at the earliest (iv) Composite license application form to be decided fast and auction in fast track mode by the State Government. (v) After taking administrative approval from the Ministry, the tendering process must be initiated within 15 days. He also requested State Governments to focus on critical minerals.</p> <p>At the end, Additional Secretary, Mines thanked everyone for attending the 62<sup>nd</sup> CGPB Meeting.</p>
<b>Address by Shri Vivek Bharadwaj, Secretary (Mines) &amp; Chairman, CGPB</b>	
<b>62.02.03</b>	<p>The Secretary, Mines welcomed all the participants at the 62<sup>nd</sup> meeting of the Central Geological Programming Board (CGPB).</p> <p>Appreciating the contribution of GSI in the mineral sector of the country over a long period, he expressed his concern over the present pace of mineral exploration being carried out by GSI.</p> <p>He emphasized on adoption of new technologies, R&amp;D activities to reduce the time required for execution as well as to produce quality output which will be contemporary in nature. To meet the national demand in mining sector, especially for the commodities in which country is deficient, GSI should take lead role to unravel the natural resources to make India AtmaNirbhar.</p> <p>He expressed his displeasure over the techno-administrative delays occurring in the various important projects presently being carried out by GSI. He advised that GSI needs to perform proactively in the various field of geoscience taking cognizance of the international best practices to make them relevant on global platform.</p> <p>The Secretary, Mines highlighted the importance of CGPB mechanism, which gets enhanced significance for development of collaborative programs and synergy. He advised to make CGPB meeting more interactive and also to consider change of location for conducting CGPB meeting in national perspective.</p>
<b>PLENARY SESSION-I</b>	
<b>Approval of the Minutes of 61<sup>st</sup> CGPB</b>	
<b>62.03.01</b>	<p>Minutes of the 61<sup>st</sup> CGPB meeting held on 24<sup>th</sup> March, 2022 was placed by Shri Asit Saha, Dy. DG, PSS-P&amp;M, GSI and was unanimously approved by the House.</p>
<b>Review of Follow-up Action on Minutes of 61<sup>st</sup> CGPB Meeting by Shri Asit Saha, Dy. DG, PSS-P&amp;M, GSI</b>	

62.04.01	<p><b>Issue (Suggestion: DMG, Telangana)</b></p> <p><b>Preparation of District-wise Geology &amp; Mineral Resources Manuals in the State by GSI, State Unit, Hyderabad.</b></p> <p>DDG, PSS-P&amp;M, GSI informed that all 33 DRMs of Telangana State are released and uploaded in GSI Portal.</p>
62.04.02	<p><b>Issue (Suggestion: DMG, Andhra Pradesh)</b></p> <p><b>1. DMG Andhra Pradesh requested the GSI to take up investigations for Iron Ore free hold areas in Kadapa and Kurnool districts on priority basis.</b></p> <p>GSI stated that the SU: Andhra Pradesh is carrying out exploration on Manganese ore in different stages (G2/G3/G4) during every FSP in Vizianagaram and Srikakulam district since FS 2017-18. During F.S. 2020-21, following three G3 stage exploration projects on Manganese ore in Vizianagaram and Srikakulam districts have been completed.</p> <ul style="list-style-type: none"> <li>• One G3 investigation (Jaggarajupeta block) report handed over to DMG, Andhra Pradesh in the CGPB meeting.</li> <li>• One G3 stage item (Garraju-Cheepurapalli block) is upgraded to G2 and the investigation is in progress during FS 2022-23.</li> <li>• One G3 investigation has been carried out in Vommi block but no resource of Mn has been estimated.</li> </ul> <p style="text-align: right;"><b>(Action: GSI)</b></p> <p><b>2. Regarding difficulty in exploration due to forest clearance issue for taking up exploration programmes for Iron Ore in Ananthapuram District, Lead &amp; Zinc areas in Guntur District, Aluminous Laterite and Bauxite exploration for new deposits etc.</b></p> <p>The response received from Ministry of Mines stated that the issues faced by the mineral exploration agencies for carrying out exploration in the forest areas are being taken up by MoM with MoEF&amp;CC from time to time.</p> <p>Guidelines under the provisions of the Forest (Conservation) Act, 1980 for undertaking prospecting/ exploration/seismic survey in forest area; streamlining of procedure issued by MoEF&amp;CC dated 17th November, 2020 are to be followed.</p> <p>MoM clarified that it was requested to the CGPB Secretariat to enquire from the DMG, Andhra Pradesh to provide the details of the issue in specific, whether the problem is being faced at State level or requires the discussion to be taken up with MoEF&amp;CC, for further perusal at the Ministry of Mines. The matter was communicated to DGM, Andhra Pradesh by CGPB Secretariat on 13th December 2022. Response is yet to be received from DMG, Andhra Pradesh.</p> <p>Representative of DGM, Andhra Pradesh, informed the house that the issue is not yet resolved. The study areas of Ananthapuram district falls under the reserve forest and also have dispute regarding State boundary. The forest clearance has been not yet</p>

	<p>issued.</p> <p style="text-align: right;"><b>(Action: MoEF&amp;CC)</b></p>
<b>62.04.03</b>	<p><b>Issue (Suggestion: CGM, Tamil Nadu)</b></p> <p><b>1. Fixation of rate of royalty for Molybdenum: The rate of royalty of Molybdenum has not been fixed in the Second Schedule of the Act.</b></p> <p>Director (Tech.) Mines informed that the royalty rate of Molybdenum has been fixed by the Government. and the copy of the order is available on the website of Ministry of Mines.</p> <p>Additional Secretary, Mines requested CGM, Tamil Nadu to expedite the process of auctioning of molybdenum as the royalty rate of Molybdenum has been fixed and process of calculation of ASP is explained.</p> <p>CGM, Tamil Nadu responded that land availability report is pending with the District Collectors concerned. Once the report is being received, the auctioning of the Molybdenum block will be expedited.</p> <p>Secretary, MoM showed his displeasure for delay in auction of the blocks. He advised the representative of CGM, Tamil Nadu to resolve the land related issues so that auctioning can be done at the earliest.</p> <p style="text-align: right;"><b>(Action: CGM, Tamil Nadu)</b></p> <p><b>2. Declaration of the non-metallic industrial minerals like Calcite, Dolomite and Dunite as Major Minerals</b></p> <p>MoM has sent the proposal regarding the above issue to IBM and it is under examination at IBM.</p> <p style="text-align: right;"><b>(Action: IBM)</b></p>
<b>62.04.04</b>	<p><b>Issue (Suggestion: DGM, Assam)</b></p> <p><b>1. If the Geological Survey of India, SU: Assam can explore the surrounding area of Burahungdong, namely Therevelongso area with lat 92°39'15" and long 25°27'23" of SOI toposheet No. 83 C/11, Dima-Hasao district, the State of Assam will be benefited for new Limestone area or any other valuable mineral.</b></p> <p>GSI apprised that SU: Assam has taken up one G3 stage investigation on Limestone in Sikilangso area, Dima Hasao District, Assam during FS 2022-23. The report will be handed over to the State Government once the final report is circulated.</p> <p style="text-align: right;"><b>(Action: GSI, NER)</b></p> <p><b>2. As per the minutes of the 16th meeting of CGPB committee-XI held on 23rd September, 2020 at CHQ, GSI, Kolkata, all the technical reports of exploration done by this Directorate are physically available. These reports may be made available to the GSI for digitization.</b></p>

	<p>DGM, Assam responded that the physical copy of Geological reports of the Directorate will be handed over as soon as the agency for digitization reaches the Directorate office.</p> <p>GSI requested DGM, Assam for providing the available scan copies of exploration reports through electronic media (authorized email, ftp, etc.) to BISAG-N, if possible. Otherwise officials from BISAG-N will visit DGM, Assam in the second/ third week of February, 2023 with prior communication for the same.</p> <p style="text-align: right;"><b>(Action: GSI, DGM Assam and BISAG-N)</b></p>
<b>62.04.05</b>	<p><b>Issue (Suggestion: DGM, Nagaland)</b></p> <p><b>Geophysical survey for prospecting Ni-Cr-Co bearing Magnetite and Chromite in Naga Hills Ophiolite at Phur, Phek district, Nagaland.</b></p> <p>GSI informed that One G3 stage investigation titled 'Preliminary Exploration for iron ore around Purr-Sutsu, Phek District, Nagaland', has been proposed to be carried out during FS 2023-24 by GSI, NER.</p> <p>This item also includes geophysical survey of 15 Linekm for the delineation of the magnetite bodies.</p> <p style="text-align: right;"><b>(Action: GSI, NER)</b></p>
<b>62.04.06</b>	<p><b>Issue (Suggestion: Directorate of Geology, Odisha)</b></p> <p><b>1. Ministry of Mines is considering to conduct exploration through private exploring agencies where the funding will be done by NMET. State DGM or GSI should be entrusted to examine the scheme of exploration, supervise &amp; monitor the activities of the agency during the course of exploration. The agency should submit a copy of the geological report to the State Government.</b></p> <p><b>2. The blocks selected for exploration of notified minerals by private agencies should be allotted by a technical committee examining the credentials &amp; expertise of the intending exploring agency.</b></p> <p>Ministry of Mines has issued a Scheme for the engagement of Notified Private Exploration Agencies for mineral exploration through the NMET fund vide OM F.No.6/3/2015-NMET/28 dated 10th May 2022. The Notified Private Exploration Agencies shall undertake exploration in respect of the category of minerals and mineral deposits under which it has been notified in consultation with respective State DGMs/DMGs. There are three modes of engagement of Notified Private Exploration Agencies by the State Governments. The scheme for accreditation of agencies in exploration sector and the guidelines are available on the website of Ministry of Mines.</p>
<b>62.04.07</b>	<p><b>Issue (Suggestion: DMG, Jharkhand)</b></p> <p><b>Mineral Exploration for Diamond Exploration in Gumla and Simdega District.</b></p> <p>DMG, Jharkhand informed that a letter has been sent to HoD (Exploration), MECL,</p>

	<p>Nagpur Vide letter no 2334 dated 13/12/2021 to take up the Diamond Exploration Programme in Gumla &amp; Simdega District under NMET programme. Also letter has been sent to Regional Director (East), MECL, Ranchi vide letter no 2380 dated 16/12/2021 for the same matter.</p> <p>MECL apprised the house that MECL has received reports of GSI pertaining to Diamond exploration in Simdega &amp; Gumla Districts. MECL team is studying the reports. Additionally, they have written letter to Director NGRI and JSPL for Geophysical reports and EPMA studies of the area so that they can formulate the proposal up to G3 level of exploration and submit the same to NMET. MECL informed that the proposal will be submitted by March 2023.</p> <p style="text-align: right;"><b>(Action: MECL)</b></p>
62.04.08	<p><b>Issue (Suggestion: DMM, WB)</b></p> <p><b>Agenda 1:</b>  <b>DMM West Bengal has three Major Mineral (Non-Coal and Non-Fuel) deposits in nine different areas as per published reports of GSI, namely,</b></p> <ol style="list-style-type: none"> <li>1. <b>Apatite/ Rock Phosphate in four no of areas: i) Chirugoda, ii) Purdaha, iii) Parkidih and iv) Kutni, all belong to the District of Purulia.</b></li> <li>2. <b>Rare Metal deposits in two Blocks namely Beku and Belamu, both belonging to P.S. Jhalda, District-Purulia.</b></li> <li>3. <b>Base Metals deposits in two Blocks namely i) Gorubathan ii) adjoining Kumai area, Kalimpong District.</b></li> <li>4. <b>Tungsten deposit in Chhendapathar area of Bankura District.</b></li> </ol> <p><b>For the above mentioned nine areas, GSI has been requested to define the boundaries of mineral bearing lands using DGPS system. A summary of the Geological Report as per Proforma-IVA, of the Notification no. G.S.R. 304 (E) dated 17.04.2015. (Evidence of Mineral Content) Rule, 2015, for five no of areas namely, Chirugoda, Purdaha, Parkidih, Beku and Gorubathan is also requested.</b></p> <p>GSI responded that as per Proforma-IVA DGPS survey data for Beku, Belamu-Khatanga, Chirugoda, Purdaha blocks were submitted to DMM, West Bengal on 4<sup>th</sup> February, 2021.</p> <p>To study the feasibility for taking up DGPS survey in Gorubathan area, joint traverses were taken by GSI &amp; DMM, West Bengal from 14-12-2022 to 18-12-2022. During the traverses some earlier drilling points were identified in the field and on the basis of those drilling points, a tentative block boundary will be demarcated. This work will be done immediately after completion of the field projects of 2022-23 in consultation with DMM, West Bengal.</p> <p style="text-align: right;"><b>(Action: GSI &amp; DMM, West Bengal)</b></p> <p><b>Agenda 2:</b></p>



	<p><b>The Sponge Iron Production Units of our State are suffering badly owing to severe scarcity of sustained supply of Iron Ore from other neighbouring States, as there is an absence of Iron Ore mines in the State of West Bengal.</b></p> <p><b>Mineral Allocation of the available Mineral Resources is “to ensure equitable distribution of Mineral Wealth to sub serve the common good”, as per Sr.1 VISION Pg.01 of National Mineral Policy, 2019.</b></p> <p><b>Therefore, DMM West Bengal requested to explore the possibilities of lying down suitable Guiding Principles, through Long Term Linkage of purchasing a small part of Iron Ore Mineral Reserve from the adjoining States (e.g. Jharkhand, Odisha), who belong to the category of Leading Iron Ore Producing States in our country, for the survival of the MSME Units of our State.</b></p> <p>MoM has responded that DMM, West Bengal may make a request to MoM in this regard. DMM West Bengal is yet to submit such a proposal to Ministry of Mines. Additionally, these transactions are done on commercial principles without Government intervention.</p> <p style="text-align: right;"><b>(Action: DMM, West Bengal)</b></p> <p><b>Agenda 3:</b></p> <p><b>Using NMET Fund, MECL has been requested by DMM West Bengal for exploration (up to G2 Level), of well-known Multi-Metal Deposits of Gorubathan area (as per existing G3 level GSI report). As the area is mostly Forest Covered, MECL has requested DMM WB for the possibilities of obtaining Forest Clearance for Sakam and Dalinga forest region of Gorubathan areas.</b></p> <p>MoM responded that MECL carried out a desktop study as per the summary of the block provided by the DMM, W.B. It was observed that the block falls in a dense forest (Sakam Forest &amp; Dailing Forest). Based on this, MECL has sent letter No. MECL/EXPL/DMM/WB/2019-20/2116 dated 21.01.2020 to confirm the possibility of forest clearance from the State Government, however, no response has been received yet.</p> <p>Secretary, MoM advised MECL representative to pursue the matter with DMM, WB immediately and the outcome needs to be communicated to MoM at the earliest.</p> <p>Additional Secretary informed the house about project GATISHAKTI and requested all the DGM's to use it.</p> <p style="text-align: right;"><b>(Action: DMM, West Bengal, All State DGMs/DMGs)</b></p>
62.04.09	<p><b>Issue (Suggestion: DCI, Manipur)</b></p> <p><b>DCI, Manipur has requested GSI for taking up preliminary Exploration for chromite, Ni, Cu, and PGE in Hangkau village, Kamjong District, Manipur (G3). GSI is requested to take up G3 stage chromite exploration in the area.</b></p> <p>GSI responded that they have already taken up two mineral exploration items (G3 &amp;</p>

	<p>G4) in Ukhrul District for chromite, cobalt and associated minerals (Ni, V, PGM, base metals) as proposed by DCI Manipur for FS 2021-22. However, due to stiff local resistance and non-availability of permission for carrying out any work, the exploration programmes of FS 2021-22 were shelved. Similarly, one G4 project for chromite, nickel and associated base metals around Kangpat-Phaipok-Kongkhan area, Naga Hills Ophiolite Belt, Kamjong District, Manipur has been proposed for FS 2022-23, but the item has been shelved apprehending similar resistance.</p> <p>GSI recommended that DCI Manipur may take up the exploration activities themselves and GSI, NER will extend all possible technical guidance for the same.</p> <p>The Additional Secretary, Mines requested the state unit's in-charge of GSI to look into the issue of local resistance problems in the NER States like Manipur. He suggested GSI to have correspondences with DCI Manipur, considering significant improvement in the situation in States like Manipur in last few years.</p> <p>GSI responded that letters from Imphal Camp office, GSI, NER vide dtd 21.03.2022 and 25.11.2022 have been sent to DCI, Manipur requesting for assistance from the State Government. to get permission from the local authorities in the areas proposed by DCI Manipur for taking up mineral exploration projects. As no response was received from the DCI, Manipur, a Director level officer from GSI Imphal Camp office visited DCI, Manipur office on 19.12.2022 and 11.01.2023. As informed by DCI, Manipur, the matter would be sorted out soon as they will be visiting Ukhrul shortly to have direct discussion with the local community.</p> <p style="text-align: right;"><b>(Action: DCI Manipur &amp; GSI, NER)</b></p>
62.04.10	<p><b>Issue (Suggestion: CMPDI)</b></p> <p><b>CMPDI requested waiving off forest clearance for exploration drilling &amp; geophysical seismic survey in forest area.</b></p> <p>MoM responded that some major issues faced by the various exploration agencies have been listed and are taken up on regular basis with the MoEF&amp;CC. Matters such as excluding exploration from the ambit of the FC Act, inclusion of pitting/ trenching, etc. are emphasized to make necessary changes FCR and in the Survey and Investigation guidelines of MoEF&amp;CC.</p> <p>Also, an <b>Inter-ministerial Coordination and Monitoring Committee</b> for FC, EC and Wildlife (ICMC) has been constituted in the Ministry of Mines which takes regular meetings with MoEF&amp;CC on monthly basis.</p> <p style="text-align: right;"><b>(Action: MoM, MoEF&amp;CC)</b></p>
62.04.11	<p><b>Issue (Suggestion: FIMI)</b></p> <p><b>FIMI stressed on the thrust for geological exploration for limestone in the State of Tamil Nadu. With fast depleting mineable limestone resources in the state, it is requested that focus on limestone exploration should be given in the State of Tamil Nadu.</b></p>

	<p>DGM, Tamil Nadu informed that a Notice Inviting Tender (NIT) was issued on 30.04.2022 for e-auctioning of 8 limestone blocks in Ariyalur District. In respect of 6 blocks (Anandawadi and Unjini blocks – objection from M/s. TANCEM) the first round of auction was completed and the list of technically qualified bidders were announced on 11.07.2022. The initial price offer for Adanakurichi block was opened on 13.07.2022 and other blocks are yet to be opened and the auction process was postponed for 2 weeks from 14.07.2022.</p> <p>At this stage, the Government directed the Commissioner of Geology and Mining to proceed with e-auction for all 8 blocks vide letter dated 24.08.2022.</p> <p>In the meantime, M/s. Ramco Cements and Chettinad cements vide letters dated 29.07.2022 and 02.09.2022, have requested the State Government to include a specific provision in tender document in consonance with National Mineral Policy 2019 regarding Right of First Refusal to be granted in the event of majority of lands in any particular block is owned by the cement manufacturer as the land being the State subject. The State Government has been advised to carry out the auction as per Mineral Auction Rule.</p> <p>In respect of Nandappadi Sub-block in Cuddalore District, Land availability report is awaited from District Collector, Cuddalore. On receipt of the same, the auction process will be initiated for grant of ML.</p> <p>In respect of one Geological Memorandum of Karisalkulam Limestone block in Virudhunagar District and Three Memorandums namely Samipilaiyur, Kiranur and Ponnirpatti Limestone blocks in Karur District, the State Government vide Lr.No.9088 /MMA.2/2021-2 dt.9.9.2022 have addressed GOI seeking prior approval for grant of PL cum ML. The Government of India in letter dated 07.10.2022, have conveyed the prior approval for auction of four G4 limestone blocks for grant of composite license. On receipt of the land availability report from the concerned District Collectors of Karur and Virudhunagar auction process will be initiated.</p> <p>Secretary, MoM showed his displeasure for delay in auction of the blocks and advised DGM, Tamil Nadu to take appropriate steps for auctioning at the earliest. He further asked GSI to review its exploration programme in the State as all such expenditure was becoming infructuous.</p> <p>Additional Secretary, Mines requested State DGMs for submission of proposal to NMET for taking up limestone exploration projects.</p> <p style="text-align: right;"><b>(Action: All State DGMs/DMGs)</b></p>
<b>62.04.12</b>	<p><b>Issue (Suggestion: IREL (India) Limited)</b></p> <p><b>Point 1</b></p> <p><b>IREL has the concern regarding sterilization of Atomic Minerals (Beach Sand Minerals) in the coastal stretches of Tamil Nadu, Kerala, Andhra Pradesh and Odisha due to change of land use towards various construction and infrastructure development activities.</b></p>

	<p>DMG, Odisha responded that AMD was requested to identify the potential BSM bearing areas in the state and the potential areas need to be shared with DMG, Odisha. Till date, no such maps have been received. However, after the recommendation of the CGPB to restrict sterilization of BSM bearing areas, DMG (O) is referring all the infrastructure development proposals of the State Government for necessary views and accordingly NOC to the concerned agency/ authorities are being issued as a principle.</p> <p>AMD responded that the matter has been noted. Apart from the Mining Lease area for BSM deposits allotted to Ms. IREL and Ms. IREL-IDCOL, AMD will communicate the boundaries of other BSM deposits explored by the Directorate to DGM, Odisha shortly. AMD has shared the coordinates with DGM, Andhra Pradesh.</p> <p>AMD further mentioned that the Geological Reports in respect of ten (10) BSM deposits in the State of Kerala explored by AMD along with the co-ordinates have been submitted under Rule 5 of AMCR, 2016 to the Director, Department of Mines &amp; Geology, Government of Kerala for conveying the precise area so as to enable DAE to process the case under provisions of AMCR, 2016.</p> <p style="text-align: right;"><b>(Action: DGM, Kerala &amp; AMD)</b></p> <p><b>Point 2</b></p> <p><b>Non-implementation of Atomic Mineral Concession Rules – 2016 by the State Governments causing hindrance for winning the Atomic Minerals (Beach Sand Minerals).</b></p> <p>DGM, Odisha replied that they are duly following the provisions of Atomic Mineral Concession Rule for grant of ML to the designated agency IREL and the then IDCOL now merged with OMC Ltd.</p> <p>DGM, Tamil Nadu informed that as per Section 17A (1A) of the Mines and Minerals (Development and Regulation) Act, 1957, the Central Government in consultation with the State Government have reserved an area of 1144.06.18 ha for Beach Sand Minerals in Kanyakumari district for undertaking prospecting /mining operations by IREL.</p> <p>Subsequently, IREL filed mining lease application on 25.06.2021 and the Government after obtaining prior approval from the Government of India under Section 5 (1) (b) of the Act, precise area have been communicated to M/s. IREL vide Government letter dated 28.06.2022 for submission of mining plan and environmental clearance.</p> <p>Further, the State Government vide GO MS No 203 Industries (MME.1) Dept. dated 14.10.2022, has accorded permission to M/s. TAMIN Ltd for entering into MOU with IREL for mining and separation of beach sand minerals.</p> <p>Therefore, AMCR 2016 is being implemented in the State of Tamil Nadu</p> <p>Additional Secretary, Mines requested to share the coordinates provided to the</p>
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	<p>various State DGM's with Ministry of Mines and also inform the Ministry in case any amendments needs to be made in the Atomic Mineral Concession Rules – 2016.</p> <p>AMD ensured that the coordinates will be shared with all the State DGM's within two months.</p> <p><b>(Action: DGM/DMG Tamil Nadu, Odisha, Kerala, Andhra Pradesh &amp; AMD)</b></p>
62.04.13	<p><b>Issue (Suggestion: NMDC Limited)</b></p> <p>NMDC is a “NODAL EXPLORATION AGENCY “ as per Sub-Section (1) of Section (4) of MMDR, 1957 and has been conducting Regional to Detailed exploration since last six decades for various minerals. Twice, NMDC has submitted the proposal to MOM, GOI (Satyavama Portal -2019 &amp; 2020 under Science and Technology Yojana for Aatma Nirbhar Bharat in Mining Advancement). This is a joint Research Based Project with Presidency College Kolkata. This research project will be first of its kind in India which would prove “Ore Beneath Ore Concept” for Iron Ore in India. The deepest boreholes drilled by NMDC in world class Bailadila Iron Ore Mines would be used for the project. The cost of the project would be nominal. NMET may fund the project in National Interest. This project would also generate revenue under Aatma Nirbhar Bharat.</p> <p>NMDC has twice submitted a joint Research Based Project with Presidency College Kolkata to MOM, under NMET and S&amp;T programme of the Ministry. Shri Janardan Prasad, ADG &amp; HoD, GSI, SR and Chairman, TCC, NMET replied that the project was considered twice in the TCC meeting of NMET but it is not approved. Additional Secretary, Mines advised NMDC to arrange funding for the project through its own funds or through Ministry of Steel.</p> <p><b>(Action: NMDC)</b></p>
62.04.14	<p><b>Issue: (Suggestion: DGM, Assam)</b> As per the proposed field programme of GSI, SU: Assam, the exploration of limestone will be carried out at Saijilangsho, Dima- Hasao dist. If GSI carry out the exploration works up to G3 level, the Directorate can be able to auction the area.</p> <p>Issue already discussed under para 62.04.04</p>
62.04.15	<p><b>Issue (Suggestion: DGM, Maharashtra)</b></p> <p><b>PROPOSED FIELD PROGRAMME FOR FIELD SEASON 2021-22 DIRECTORATE OF GEOLOGY AND MINING, GOVERNMENT OF MAHARASHTRA, NAGPUR IN COLLABORATION WITH GEOLOGICAL SURVEY OF INDIA</b></p> <p><b>1) Preliminary Exploration for locating Bauxite/Aluminous Laterite in Kudopi area, Tah. Malvan, Dist. Sindhudurg (T.S. No. 47H/11 &amp; 47H/12), G3 stage</b></p> <p><b>Objective:-</b> To prove existence of Bauxite/Aluminous laterite in Kudopi area, Tah. Malvan, Dist. Sindhudurg as per MEMC Rules 2021.</p> <p><b>Location:-</b> The area is bounded by Latitude 16°13'42"N to 16°15'30"N and</p>

	<p>Longitude 73°30'00"E to 73°31'44"E and located in Survey of India Toposheet no.47 H/11 &amp; 47 H/12.</p> <p><b>2) Preliminary Exploration for locating Copper and associated mineralization in Lawari area, Tah. Chimur, Dist. Chandrapur (T.S. No. 55P/11), G3 stage</b></p> <p><b>Objective:-</b>To prove existence of Copper and Associated Minerals in Lawari area, Tah. Chimur, Dist. Chandrapur as per MEMC Rules 2021.</p> <p><b>Location:-</b> The area is bounded by Latitude 20°29'02.07"N to 20°29'31.57"N and Longitude 79°30'57.43"E to 79°31'36.66"E and located in Survey of India Toposheet no. 55P/11.</p> <p>DDG, PSS-P&amp;M apprised the House that GSI has taken up Preliminary Exploration for locating Bauxite/Aluminous Laterite in Kudopi area, Tah. Malvan, Dist. Sindhudurg (T.S. No. 47H/11&amp; 47H/12) and the work is in progress. Regarding Preliminary Exploration for locating Copper and associated mineralization in Lawari area, Tah. Chimur, Dist. Chandrapur (T.S. No. 55P/11) GSI is yet to receive any proposal/ MoU draft from DGM.</p> <p>DGM, Maharashtra responded that in the F.S. 2021-2022, DGM, Maharashtra has individually carried out preliminary exploration scheme for locating copper and associated mineralization in Lawari area, Tah. Chimur, Dist. Chandrapur (T.S. No. 55P/11) through State Government regular funding. Hence, proposal/ MoU draft has not been sent to GSI.</p>
62.04.16	<p><b>Issue (Suggestion: DMG, Punjab)</b></p> <p><b>1. In the SGPB meeting, it was discussed that the resource for Potash and Halite will be calculated and report will be handed over to the State Government Punjab. It is submitted that additional bore holes should be drilled for delineation of Potash, Halite in Evaporite basins in the State of Punjab, with the request that the drilling and deep exploration may be carried on fast track basis. This will enhance the economic and mineral potential of the State of Punjab.</b></p> <p>GSI stated that the Geological Memorandum (GM) pertaining to report titled "Reconnaissance survey for Potash, Gypsum and associated sulphates in Qabrwala block in parts of Fazilka and Sri Muktsar Sahib districts, Punjab", FS 2018-19 was handed over to the State Government on 12.07.2022 during the 6<sup>th</sup> National Mineral Conclave.</p> <p>Also, GSI carried out Reconnaissance survey for reappraisal of Potash in Fazilka and Sri Muktsar Sahib districts of Punjab and Ganganagar district of Rajasthan (G4 stage) during FS: 2019-21. Based on the finding of the study, a G4 stage project on potash has been taken up in the adjacent Shergarh- Dalmirkhera block, Fazilka district, Punjab during FS. 2022-23. The investigation is under progress.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p> <p><b>2. Further, as deliberated in the SGPB meeting regarding the fluoride</b></p>

	<p><b>contamination, a project may be taken up in this regard also.</b></p> <p>GSI appraised the House that a project on Geo-environmental appraisal of Uranium, Arsenic and Selenium contamination in the surface/sub-surface water of Ramtirath Jagga, Talwandi, and Suratiya and adjoining areas of Toposheet No 44O/1 of Punjab and Haryana was carried out during FS: 2020-22. The report is circulated and it will be handed over to the State DGM shortly.</p> <p>GSI has also proposed to take up a project on Geo-environmental appraisal of fluoride containing ground waters in Sangrur and Mansa districts of Punjab and Fatehabad, Jind and Hissar Dist of Haryana, India during FS 2023-24.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p>
62.04.17	<p><b>Issue (Suggestion: CWC)</b></p> <p><b>CWC is involved in the Survey &amp; Investigation and DPR preparation works of water resources projects for which Geo-Technical investigations are being done in consultation to concerned GSI Office. Currently, process for taking up the work for Survey &amp; Investigation and DPR preparation for two water resources projects namely Pachnad Barrage Project, Uttar Pradesh and Subarnarekha-Mahanadi Interlinking Project is underway and MoU for the aforesaid projects will be signed very soon.</b></p> <p><b>The work for Survey &amp; Investigation and DPR preparation of above-mentioned projects is likely to be started in January-2022. Therefore, it is requested that work of Geotechnical investigations for above mentioned projects may be included in agenda items of 61st CGPB meeting.</b></p> <p><b>Exact quantum of work shall be intimated once MoU is finalized.</b></p> <p><b>Pachnad Barrage Project, U.P:</b> GSI informed that the joint site visit was made on 28.10.2022 by the officers of GSI, SU: UP, Lucknow &amp; CWC Faridabad. For Geotechnical consultancy in connection with Preparation of Detailed Project Report (DPR) of Panchnad Irrigation Scheme, draft MoU is submitted to CWC Faridabad on 25.11.2022 through e-mail but response is yet to be received from CWC.</p> <p><b>Subarnarekha-Mahanadi Link Project:</b> GSI apprised that the joint inspection for the proposed Subarnarekha-Mahanadi Link Project area has been carried out by the GSI, ER and CWC Engineers during 13<sup>th</sup> to 15<sup>th</sup> September, 2022. The MoU between CWC, Faridabad and GSI, ER relating to the Geotechnical investigations for Subarnarekha-Mahanadi Link Project has been finalised. The signing of the MoU by the authorized signatories will be done shortly.</p> <p>CWC representative informed the house that MoUs are being finalized and the CWC is working closely in co-ordination with GSI.</p>

	(Action: CWC & GSI)
62.04.18	<p><b>Issue (Suggestion: DMG, Jharkhand)</b></p> <p><b>Proposal of precious &amp; semi-precious Mineral and REE under NMET funding.</b></p> <p>Appreciating GSI for handing over of the reports to State Government, Additional Secretary, MoM requested State Governments to auction the G4 reports of Basemetals and REE available with them at the reasonable reserve price to attract the bidder.</p> <p>He also advised that in case the bidder is not available then DGMs can further request for up-gradation of those reports to G3 or G2 stage exploration by GSI or other agencies.</p> <p>DMG, Jharkhand responded that letter has been sent to Regional Director (East), MECL, Ranchi Vide letter no. 2380 dated 16/12/2021 to propose exploration programme for precious, Semi- Precious Mineral and REE under NMET Fund. Regarding Geological Memorandum, several meetings are being conducted with the officials from Geological Survey of India to prepare the Geological Memorandum to an auctionable block so that those areas can be put for auction.</p> <p>GSI replied that GSI has handed over a total 18 GM(s) to the State Government, Jharkhand for auctioning purposes. Among these, two GMs are under process of auction by the State DMG, Jharkhand and one has been placed to NMET for further exploration.</p> <p>DGM Jharkhand has communicated to GSI that 15 GMs submitted by GSI could not be placed for bidding due to various reasons like reserve area for AMD, Dalma Eco-sensitive Zone and limited prospect of resource potential.</p> <p>GSI responded that it is exploring the possibilities for taking up G3 stage exploration based on the GMs which are not auctioned by the DGM, Jharkhand. Further, GSI has already proposed to take up 17 mineral investigation programmes in 2023-24 in the State of Jharkhand.</p> <p>DMG, Odisha informed that the State DMG has received 16 GMs from GSI, SU, Odisha for auction of mineral blocks and the Technical Committee has evaluated the feasibility of the GRs. But the Government. of Odisha, in principle desires to upgrade these mineral blocks to higher level of exploration in due course of time so that Government can earn higher revenue through auction. Action will be initiated for these blocks in the year 2023-24 by allotting the blocks to the different agencies.</p> <p>DGM, Maharashtra replied that DGM Maharashtra has put up following blocks of Base metal and Gold in 6<sup>th</sup>, 7<sup>th</sup> &amp; 8<sup>th</sup> phase of auction.</p> <ol style="list-style-type: none"> <li>1) GhanpurMudholi West Block, Tah. Chamorshi, Dist. Gadchiroli (Base metal and Gold)</li> <li>2) Bamhani Block, Tah. Sindewahi, Dist. Chandrapur (Base metal)</li> <li>3) Minjhari Block, Tah. Sindewahi, Dist. Chandrapur (Base metal)</li> </ol> <p>Out of these three blocks if any block is not auctioned in the current 8<sup>th</sup> phase of</p>



	<p>auction, then, DGM, Maharashtra will request GSI for upgradation of that report to G3 or G2 stage.</p> <p>DMG, Karnataka stated that as per the latest guidelines of NMET, DMG Karnataka is putting up the annulled blocks for second attempt auction. If those blocks get annulled in 2<sup>nd</sup> attempt, blocks will be taken up for further exploration under NMET.</p> <p>DGM, Tamil Nadu informed that with regard to G4 reports related to base metals and REE, it is informed that only one report for base metal, i.e., Tungsten at G4 level is available which is proposed for auction of CL after getting land availability report from District Collector, Madurai.</p> <p>Other than this, no other reports have been submitted by Geological Survey of India related to base metals and REE.</p> <p>DMG, Arunachal Pradesh replied that the GSI, State Unit: Itanagar has provided exploration report of Graphite deposit (G4 stage exploration) of Isolun-Anelin-Adolin area of Debang Valley District to the State DGM, and the NIT process to auction the Graphite block is under process &amp; tender will be floated through the MSTC.</p> <p>Further, the GSI, SU: Itanagar, also requested to provide some more G4 &amp; G3 exploration reports to the State DGM.</p> <p>In reply GSI stated that three G3 Stage mineral investigation reports on Graphite-Vanadium, Gold-Vanadium &amp; REE pertaining to the State of Arunachal Pradesh are being finalized and will be handed over to the State Government.</p> <p>Secretary, MoM advised that DGMs should take proactive steps for auctioning of the blocks.</p> <p style="text-align: right;"><b>(Action: GSI, All State DGMs/DMGs)</b></p>
<b>62.04.19</b>	<p><b>Issue (Suggestion: DMG, Karnataka)</b></p> <p><b>Exemption of Forest Clearance for G4 level Exploration and simplified process for G3 &amp; G2 level of exploration activities in the forest areas.</b></p> <p>Issue already discussed under Para 62.04.02</p>
<b>62.04.20</b>	<p><b>Issue (Suggestion: NLC India Limited)</b></p> <p><b>For carrying out suitable geophysical survey by GSI in unexplored Tertiary sediments area and as per GSI's response given in the agenda notes for 60<sup>th</sup> CGPB meeting, GSI may cover initially 10,500 sq. km in Tamil Nadu under NGPM. Based on the outcome, potential area if any may be taken up through scout drilling to plan for future regional exploration for lignite.</b></p> <p>GSI responded that the available geophysical data pertaining to TS nos. 58K/1, 58K/2, 58K/3 &amp; 58K/5 falling in parts of specified area has been shared with NLC on 19/10/2022 as per Data Sharing and Accessibility Policy of GSI. Presently NGPM work has been outsourced which includes 10 Toposheets (58J/12, 58J/14, 58J/15, 58J/16, 58N/1, 58N/2, 58N/3, 58N/4, 58N/5 &amp; 58O/1) falling in specified area. The</p>

	<p>work is under execution and data will be shared with the NLC after completion of the survey.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p>
<b>62.04.21</b>	<p><b>Issue (Suggestion: CWC)</b></p> <p><b>1. For Geological Investigations of Drass-Suru Project in UT of Ladakh, under IBO, CWC, Chandigarh, three to four field visits of GSI would be required.</b></p> <p><b>Government of Ladakh has given consent to CWC for taking up the work of preparation of DPR of Drass-Suru Link Project vide letter dated 19.7.2022. Chenab Division, CWC, Jammu is conducting preliminary studies of the Project based on available data so visit of GSI has not been taken place in 2022-23 and MoU has not been submitted because quantum of work will be calculated after preliminary studies by CWC. GSI will be approached for this work in 2023-24.</b></p> <p>GSI informed that the issue of geological investigations for Drass-Suru Project in UT: Ladakh was discussed with Director, CWC Jammu. It was informed that CWC shall intimate a suitable date for field visit. The response from CWC is awaited.</p> <p>On request from CWC, GSI will make field visit addressing the specific issues (Geological/Geotechnical) pertaining to Drass-Suru HEP.</p> <p style="text-align: right;"><b>(Action: CWC)</b></p> <p><b>2. GSI assistance is required for the Geological Investigations of four new projects namely 1) Buroi Medium Irrigation Project, Assam 2) Burisuti Medium Irrigation Project, Assam 3) Medium Irrigation Project in Mebo Area, Arunachal Pradesh 4) Medium Irrigation Project in Kaya Valley Area, Arunachal Pradesh, under BBO, CWC, Guwahati for providing the geological inputs towards preparation of DPR. In this regard, field work pertaining to the mentioned 04 projects is most likely to commence during first quarter of calendar year 2022.</b></p> <p>CWC responded that PFR stage joint site visit has been completed by GSI Shillong team during 10-13 September 2022 for Buroi Medium Irrigation Project, Assam.</p> <p>PFR stage joint site visit has been completed by GSI Shillong team during 17-20 September 2022 for Mebo Area Irrigation Project, Arunachal Pradesh.</p> <p>PFR stage joint site visit by GSI Shillong team is proposed during November / December 2022.</p> <p>Draft MoU for geo-technical investigation for Buroi Irrigation and Mebo Area Irrigation Project is under finalization.</p> <p>GSI clarified that GSI, NER already held preliminary discussion regarding all the four projects with NEID-III, CWC, Itanagar. Joint field visit with the designers of CWC is already completed for the selection of barrage/dam axis for Buroi Irrigation Project, Assam and Mebo Irrigation Project, Arunachal Pradesh. Joint field visit is proposed to be carried out for Burisuti Irrigation Project, Assam and Kaya Valley Irrigation Project, Arunachal Pradesh in 3<sup>rd</sup> week of January, 2023 and 2<sup>nd</sup> week of February, 2023</p>

	<p>respectively. MoU between GSI and CWC is under process for these projects and the work will be initiated as per the requirement of the project authorities.</p> <p style="text-align: right;"><b>(Action: CWC &amp; GSI)</b></p>
<b>62.04.22</b>	<p><b>Issue(Suggestion: FIMI)</b></p> <p><b>Odisha and Andhra Pradesh:</b> While several limestone deposits have been reported within the States of Odisha and Andhra Pradesh which are inland and many of the areas have been granted under mineral concession to various companies there is a need to identify blocks lying along the coastal tracts of these States. The thrust on coastal locations is to facilitate export of limestone/clinker through sea route to the States of West Bengal in the north which do not have any known deposit of limestone so far and to Tamil Nadu in the south which is facing limestone deficit. Given the market dynamics presently, these States are witnessing rapid growth in consumption of cement and the trend is likely to continue in foreseeable future hence the need to explore coast-based limestone deposits.</p> <p>DMG, Odisha informed that the occurrence of limestone deposit in Odisha are confined to high grade granulite terrain of EGMB in the districts of Koraput, Balangir and Kalahandi while sedimentary limestone chiefly occur within the Gangpur Group of metasedimentaries in Bargarh and Sundargarh districts which are inland from the coastal tracts of Odisha. As such there is no reported occurrence of limestone prospects in the coastal districts of Odisha. However, GSI Marine wing can take up survey along the continental shelf areas of the State to locate any phosphatic nodules and verdine deposits to cater to need of fertilizer industries.</p> <p>GSI replied that seabed mapping programs in the continental shelf off Odisha coast is being planned in near future to identify and locate the possible occurrence of phosphatic nodules, if any.</p> <p style="text-align: right;"><b>(Action: All State DGMs)</b></p>
<b>62.04.23</b>	<p><b>Issue (Suggestion: IBM)</b></p> <p><b>Examination of available freehold areas.</b></p> <p><b>IBM maintains the National Mineral Inventory (NMI) for the freehold &amp; leasehold areas. It is observed that there are many freehold areas with resources. These deposits may be further examined by GSI for ascertaining their suitability for auction or for further exploration to make them auctionable. In this connection IBM has already shared the data for Lead-Zinc, Bauxite, Copper and Gold vide email dated 26.11.2021. Further data on other minerals will be shared depending on the success of these data already shared.</b></p> <p>GSI informed that the data set on freehold areas in respect of Gold, Copper, Bauxite and Lead-zinc has been examined. A total of 17 mineral exploration projects (G4 and RMT) have been proposed for FS. 2023-24.</p>

	<p>It is observed that certain blocks have in-sufficient details of co-ordinates and not georeferenced. The reports are being scrutinized at State unit offices of GSI. Ground validation and joint field traverse with DGM will be taken up to explore the possibility for further exploration in these areas.</p> <p>On scrutiny it is also observed that further exploration/auction in certain areas can not be taken up due to the following reasons-</p> <ul style="list-style-type: none"> <li>• Areas already taken up by GSI in the previous FSPs.</li> <li>• The blocks are amalgamated and auctioned recently.</li> <li>• Areas taken up/under consideration by other agencies (MECL/DGM etc) under NMET fund including the gap areas.</li> <li>• As per the decision of JWG meeting, joint field traverse was taken by GSI and DGM and few areas are proposed to be dropped for auction due to feasibility issue.</li> </ul>
<b>62.04.24</b>	<p><b>Issue (Suggestion: DGM, Arunachal Pradesh)</b></p> <p><b>Preliminary exploration of coal in and around Namgoi area, under Nampong Circle of Changlang District and Wakka area, Under Wakka Circle of Longding District.</b></p> <p><b>Tertiary coal has been reported in and around Namgoi area in Nampong Circle, Changlang District. Similarly, Coal occurrence is also reported in Wakka area, under Wakka Circle of Longding District of Arunachal Pradesh.</b></p> <p><b>It is therefore requested for Preliminary Exploration of coal of the aforesaid areas to ascertain the presence of coal reserve for an area of 10 sq. km each in two districts in collaboration with the CMPDI and State DGM.</b></p> <p>It is informed that the exploration scheme for preliminary exploration of Namgoi area, Changlang Dist and Wakka area, Longding district to ascertain the presence of coal reserve for an area of 10 sq. km in each district has been prepared by the State DGM. The proposal will be submitted to the CMPDI for technical vetting and approval from CGPB Committee-V for allocation of fund from the Central Sector Scheme of MoC.</p> <p>Additional Secretary, Mines requested CMPDI and GSI to focus on the coal exploration programs in NER.</p> <p style="text-align: right;"><b>(Action: DGM Arunachal Pradesh, CMPDI &amp; GSI)</b></p>
<b>62.04.25</b>	<p><b>Issue (Suggestion: DMM, West Bengal)</b></p> <p><b>1. Out of the existing four (04) no. of Apatite/Phosphate deposits, namely, Purdaha, Chirugora, Medinitanr and Kutni, all situated in Purulia district, W.B. , explored by GSI in G-3 Level equivalent more than three decades back. GSI, ER, is therefore requested to update their Mineral database (from G3 to G2 Level as a follow up action of 46<sup>th</sup> SGPAB (Item No. 46.05.01) as well as 49<sup>th</sup> SGPAB Agenda Item from the end of D.M.M. W.B.) as a part of their Annual Field Session Programme: 2022-2023 to identify and ascertain the most prosperous Apatite resource, considering the UNFC Three Axes parameters, among the aforesaid Four (04) Apatite deposits in Purulia district, WB, as deemed fit by</b></p>

	<p><b>them.</b></p> <p>GSI informed the following:</p> <ul style="list-style-type: none"> <li>• SU:WBAN apprised DMM, West Bengal in the JWG meeting held on 08/02/2022 on the borehole data (number, spacing, depth, strike extension as well as resources in different cut-off grade) pertaining to Apatite blocks of Chirugora, Purdaha and Medinitanr of Purulia district.</li> <li>• The borehole data pertaining to these blocks represent updated level of work already been done by GSI in concern to Chirugora, Purdha and Medinitanr area.</li> <li>• In Kutni area of Purulia district, WB, one G4 level exploration was carried out by SU: WBAN, GSI, ER during FS 2018-19. But no promising zone was found for advance level of exploration.</li> </ul> <p><b>2. It is also a request to CGPB to prepare the guidelines &amp; procedure for Base Price Fixation and Parameters involved therein for Exploration Reports of Minerals in G-4 Level, where no Mineral Reserve details are available (for example: Namgoi area Gold Project Report in districts of Bankura and Purulia, as submitted by GSI, ER), in connection to the Auction Procedure for Composite License for those areas, as amended in March and June of 2021 in the MMDR Act.</b></p> <p>The criteria for determining the reserve price for mineral auction is given in Mineral (Auction) Rules, 2015.</p>
62.04.26	<p><b>Issue (Suggestion: DGM, Odisha)</b></p> <p><b>1. Directorate of Geology had undertaken an investigation for subgrade chromite and nickel ore stacked in the old abandoned stabilized dumps within the Talangi chromite mines of M/s IDCOL in Sukinda Ultramafic Complex during F.S. 2016-17 which spread over an area of 0.6 Ha. During the investigation programme, 60 channel samples from seven channels, 110 trench / pits samples were collected and analyzed. It has been observed that out of 170 numbers of total samples about 24% of samples have been analyzed in which Cr<sub>2</sub>O<sub>3</sub> value ranging from 10.23% to 20.94%. Out of the 110 pit samples, 30 samples indicated Ni values ranging from 0.52% to 0.86% and Co values ranging from 20 to 260 ppm. The height of the dumps varies from 5 to 11m and are partially stabilized. As mining of chromite ore in the Sukinda Chromite Ultramafic Complex dates back to early nineties and as practice less than 25% Cr<sub>2</sub>O<sub>3</sub> ore were considered as mine rejects earlier and are now available in the dumps, so the stacked ores need to be assessed in view of revised threshold values. A good number of old stabilized dumps are available in the ML areas in Sukinda &amp; Baula-Nuasahi Complex, which are believed to host appreciable quantities of Co, Ni &amp; Cr<sub>2</sub>O<sub>3</sub> ores.</b></p> <p><b>With the above backdrop, it is suggested to carry out a collaborative assessment programme involving State Directorate of Geology and Geological</b></p>

	<p><b>Survey of India to assess the commodities in a scientific manner by geo-statistical method.</b></p> <p>DMG, Odisha informed that GSI and DMG (O) have been interacting regularly to undertake a R&amp;D programme to assess the commodities like Co, Ni and Cr<sub>2</sub>O<sub>3</sub> in the old stabilized dumps of Sukinda Chromite belt, Jajpur district. To start with, the Sukurangi and South Kaliapani Leasehold of M/s OMC Ltd. have been planned to take up the assignment in the year 2023-24 and accordingly, the Mining plan and surface Plan of both are being studied to know the history of mining and the morphology of the dumps so that comprehensive approach can be made on <b>pilot</b> scale.</p> <p>GSI replied that a research project entitled “Assessment of Low grade Chromite and associated Nickel in the stabilized Mine dumps of Sukrangi Chromite Mines of Odisha Mining Corporation, Jajpur district, Odisha” has been proposed to be taken up during FS 2023-24 in collaboration with DMG, Odisha.</p> <p>Secretary, Ministry of Mines instructed GSI for completion of the pilotproject within a short period.</p> <p style="text-align: right;"><b>(Action: GSI &amp; DMG, Odisha)</b></p> <p><b>2. Exploring agencies like MECL/OMECL/CMPDIL/APMDC etc. have availed funding for many exploration programmes in Odisha from NMET and some of the explorations have been completed while many are at different stages of exploration in various terrains. It is MECL/OMECL/CMPDIL suggested that those exploration programmes need to involve officers of the State Government Department so that officers can be exposed to the modern techniques of exploration and simultaneously can contribute their expertise in the field of in-house exploration &amp; capacity building as emphasized in the NMP, 2019.</b></p> <p>CMPDI responded that it has submitted a proposal for approval of Mining to Odisha Government for G4 stage of exploration for base metals &amp; manganese in Palam block, Kalahandi district for NMET funding. Officers of State Government will be involved in the implementation stage of the project after approval from NMET.</p> <p>NMET clarified that State Government officials are free to associate with the Notified Exploration Agencies concerned during the mineral exploration activities.</p> <p>DMG, Odisha responded thatDMG(O) and GSI are conducting a collaborative project on "Mineral targeting in Telkoivally, Mankarchua sector for green stone hosted gold mineralization Deogarh, Angul, Sundargarhdistricts etc. in FS 2021-23&amp; preliminary exploration for gold in Gopur block Keonjhar district, FS 2021-22, where officers of DMG (O) are involved with due approval of Government of Odisha.</p> <p>MECL responded that the Officers of State Government will be involved in exploration projects implemented by MECL in Odisha through NMET funding for capacity building</p>
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	<p>without remuneration.</p> <p>DMG, Karnataka has requested GSI State Unit offers to involve the district DMG officers to impart training on exploration. Further, they are effectively utilizing the ongoing training programs of GSI and Survey of India as well. However, they look forward to have a tailor made training programs for Geologists on modern techniques of exploration as part of in-house capacity building. On these lines, DMG has already requested GSITI to organize offline training on Bhukosh, OCBIS etc.</p> <p>GSI clarified that Officers of DGM, Karnataka have undergone various trainings conducted by GSITI during the current FSP (2022-23) including on-line/off-line training programme on Bhukosh and OCBIS in July and December, 2022 respectively.</p>
62.04.27	<p><b>Issue (Suggestion: IIT-ISM, Dhanbad)</b></p> <p><b>Proposal for imparting specialized training in the field of Structural geology and Petrology and its applications in mineral exploration to the officers of GSI and State Geological Departments on outsourced basis.</b></p> <p>GSI informed that GSITI imparts similar trainings in the field of structural Geology and Petrology and its application in mineral exploration to the officers of GSI and State Geological Departments free of cost.</p> <p>Additional Secretary, Mines suggested that IIT-ISM, Dhanbad may collaborate with GSITI for imparting such specialized trainings. <b>(Action: IIT-ISM, Dhanbad)</b></p>
62.04.28	<p><b>Issue (Suggestion: GSI)</b></p> <p><b>1. Release of Coal Bed Methane Block area in Ib River Coal field- GSI, erstwhile Coal Wing was associated with coal exploration in Odisha since 1970s and carried out investigation of a number of Blocks in Ib Basins. Potential exploration area for coal is gradually diminishing in Ib Coalfield. It is pertinent to mention here, that lot of coal potential area is reserved as leasehold area for CBM- which is not now under any exploration activity. Since the coal from Ib River valley has very low maturity and less vitrinite reflectance, the coal is not favourable for release of coal bed methane. In this consequence, part of the CBM area may be released for coal exploration to GSI, which will continue in future and augmentation of the resources in national coal inventory.</b></p> <p>GSI informed that MoC has agreed to the proposal. GSI may carry out the regional exploration within CBM released area of IB Valley Coalfield in co-ordination with CMPDI.</p> <p>GSI responded that in the 18th CGPB Committee-V meeting the point was again raised. The map uploaded in the DGH Annual Report 2020-21 shows that the CBM leasehold area in Ib-River Coalfield is under relinquishment.</p> <p><b>2. GSI informed that all the relevant data acquired during the shale gas exploration projects in Jharia Coalfield by GSI were shared with DGH.</b></p>

	<p><b>After completion of the exploration project for shale gas in FS 2020-2021, another exploration project in G4 stage in the south-central part of Jharia Coalfield is thought to be proposed as a standard FSP of GSI in FS 2022-23. The proposed area falls within the CBM Leasehold area of DGH in Jharia Coalfield, for which consent of DGH for taking up the project is required.</b></p> <p>GSI responded that consent was given and the shale gas exploration project in Jharia Coalfield has been taken up.</p>
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<b>Agenda Items received from Stakeholders were placed before the House for discussion by Shri Asit Saha, Dy. DG, PSS-P&amp;M, GSI</b>	
<b>62.05.01</b>	<p><b>Issue (Suggestion: CMPDI)</b></p> <p><b>Systematic exploration of coal as per ISP norms in CBM lease hold area for identification and augmentation of coking and good grade coal resources.</b></p> <p>DDG, PSS-P&amp;M apprised the house that GSI is interested to take up exploration for coking coal and other high grade coal within the CBM leasehold area of DGH because vast coking coal reserves are remaining unexplored in such areas of many coalfields. In FS 2023-24, GSI proposes to take up two blocks in Wardha and Kanhan coal fields within the relinquished leasehold areas of DGH. There are many unexplored areas in other coalfields which are still under leasehold. Clear guidance on exploration in those areas would benefit GSI and other coal exploration agencies.</p> <p style="text-align: right;"><b>(Action: MoC &amp; DGH)</b></p>
<b>62.05.02</b>	<p><b>Issue (Suggestion: DGM, Assam)</b></p> <p><b>1. Exploration of limestone upto G3 level in Krungming area of Dima-Hasao District with geo-coordinates 25°33'25.20"N 92°47'25.20"E 25°33'20"N 92°48'51.27"E, 25°32'25.75"N 92°48'51.27"E 25°32'25.75"N 92°47'26"E, Survey of India Toposheet No. 83C/11.</b></p> <p>GSI informed that an area of 4 sq. km in Krungming Block, Umrangso, Dima Hasao district, Assam with geo-coordinates A-25°33'23.3"N/92°47'25.2"E, B-25°33'23.3"N/92°48'51.3"E, C-25°32'28.5"N/92°48'51.3"E and D-25°32'28.5"N/92°47'25.2"E, located to the north of mining leasehold area of Calcon Cement Company Pvt. Ltd., has been proposed for limestone investigation in G3 stage during FS 2023-24.</p> <p><b>2. Exploration of limestone up to G3 level in Sheelveta area of Karbi-Anglong District falling within the latitude: 26°00'00"N 26°00'36"N and longitude:</b></p>



	<p><b>93°17'35"E 93°20'25"E within the Survey of India Toposheet No. 83G/5 and 83F/8.</b></p> <p>GSI has prioritized its mineral exploration activities for strategic-critical minerals as per present day demand. Project on limestone investigation in Sheelveta area of Karbi Anglong District will be considered by GSI in future.</p> <p>Additional Secretary, Mines stressed on more participation of DGM/private agencies for limestone exploration.</p> <p style="text-align: right;"><b>(Action: All State DGMs/DMGs)</b></p> <p><b>3. To provide technical assistance for geophysical survey whenever necessary during the exploration works as this Directorate has no Geophysicist to carry out the Geophysical survey.</b></p> <p>GSI, NER replied that technical assistance is being provided to DGM, Assam as per their request.</p> <p style="text-align: right;"><b>(Action: DGM, Assam)</b></p> <p><b>4. Providing training to officers of the Directorate for field investigation, analytical works, petrological works and uses of different software etc.</b></p> <p>As per requests received from different State DGMs, GSITI organizes various customized training programmes. In last three years, a total of 141 participants from different State departments have attended various training programmes conducted by RTD, GSI, NER.</p> <p>DGM, Assam may send participants as per training schedule of GSITI for FS 2023-24 which will be published in <a href="http://www.gsi.gov.in">www.gsi.gov.in</a> and <a href="http://www.training.gsi.gov.in">www.training.gsi.gov.in</a>. GSITI can also be approached in case of requirements for any customized trainings by DGM, Assam.</p> <p style="text-align: right;"><b>(Action: DGM, Assam &amp; GSI)</b></p>
<b>62.05.03</b>	<p><b>Issue (Suggestion: DMG, Karnataka)</b></p> <p><b>1. Preparation of Green field exploration area maps by overlaying the data of already explored areas over the OGP map of Karnataka by GSI for certain mineral commodities like Diamond &amp; Precious stones, Base metals, PGE, REE, Tungsten etc., during FSP 2023-24.</b></p> <p>GSI informed that for identification of commodity-wise G4/LSM gap area/greenfield exploration areas, GIS-based maps were prepared for various commodities including Bulk (limestone, bauxite, iron ore, manganese etc.) and non-bulk commodities (REE, molybdenum, base metals, Gold, diamond, PGE, lithium, tin, tungsten etc.) during 2021.</p> <p>For each commodity, the shape files of the existing G4 blocks were overlaid over the</p>

	<p>Obvious Geological Potential (OGP) area to identify the greenfield gap areas for G4. The G4/LSM gap areas were classified into high, medium and low priority areas after considering the favourability/feasibility in terms of geology, land use/land cover, mineral map, NGCM, NGPM and STM data. The G4/LSM gap area maps broadly represent greenfield areas for carrying out further exploration.</p> <p>During FS 2022-23, project titled "Updation of commodity wise GIS based status map of precious group of minerals of GSI, SU: K&amp;G, Southern Region in a common reference frame" has been taken up with an objective to prepare GIS based status map of Precious group of minerals (gold, PGE, diamond).</p> <p>Additional Secretary, Mines suggested to share these maps in the OCBIS portal &amp; NGDR to make it accessible to all State DGM's and other stakeholders. This will help the stakeholders to focus on such areas for exploration.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p> <p><b>2. Detailed study on recent Earthquakes reported in Karnataka to assess the reasons and suggest the mitigation plans.</b></p> <p>GSI responded that the preliminary investigation has been carried out in areas of reported earthquake incidences in parts of Kalaburagi, Vijayapura and Kodagu districts of Karnataka and report has been submitted to the Karnataka State Disaster Management Authority.</p> <p>Additional Secretary, Mines requested GSI to take up the request of DGM Karnataka in the coming FSP as the issues are of societal impact.</p> <p>GSI ensured that the project on earthquake studies will be taken up in upcoming FSP 2023-24.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p> <p><b>3. To have frequent meeting/workshop on Digitization of Geological Reports under NGDR.</b></p> <p>GSI apprised the house that the workshop titled "Concept, implementation of NGDR and role of stakeholders" was held on 12/01/23 at GSI, CHQ Kolkata and it was decided in the meeting that a team of GSI and BISAG-N will visit DMG Karnataka as early as possible. In the meantime, DMG Karnataka is requested to make a catalogue/inventory of Exploration reports and the same may be submitted to GSI, CHQ, Kolkata.</p> <p style="text-align: right;"><b>(Action: GSI, BISAG-N, DMG Karnataka)</b></p> <p><b>4. To take up detailed mapping of Bauxite/Aluminous laterite deposits of Belgavi district, Karnataka during FSP 2023-24.</b></p>
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	<p>ADG &amp; HoD, GSI, SR apprised that GSI will take up Bauxite investigation in Karnataka during FS 2023-24.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p>
62.05.04	<p><b>Issue (Suggestion: DMM, WB)</b></p> <p><b>Agenda 1:</b></p> <p>The extremely high value of this unique and only Rare Metal(s) Deposit in the country demands that efforts must be made to upgrade ores containing Cesium (along with Lithium &amp; Rubidium) for economic extraction of these Rare Metals from the Pegmatites of BEKU and its adjoining areas in Purulia District of West Bengal.</p> <p>From the reports of MECL &amp; GSI, it can be inferred that, IBM does not have the facilities for optimization of Leaching Parameters and extraction of Cs, Li &amp; Rb metals and their chemical compounds from the leached residue.</p> <p>Thus, it is requested to CGPB, after interaction with the Member Participant Organizations, especially, MECL, AMD, IBM, &amp; GSI, and/or any other Member Organization to suggest the name of specialized Laboratory facilities for conducting Hydro- Metallurgical Studies regarding extractability of Cesium from Commercial view point. This is because, the Mineral reserves of the said areas have been fruitfully established, but, the high tech R&amp;D Studies regarding successful economical exploitation of Cesium from these deposits need to be developed on an immediate basis.</p> <p>Therefore, valuable suggestions from CGPB is urgently requested regarding Laboratories that conduct Hydro-Metallurgical Studies in connection with extraction of Cesium from its Ore for preparation and formulation of future NMET G-2 Level Project Proposals for West Bengal.</p> <p>AMD replied that the mandate of AMD is exploration and augmentation of atomic minerals for sustaining the nuclear power programme of the country. AMD does not carry out hydro-metallurgical studies for the extraction of Cesium and such work is beyond the scope of activities of AMD.</p> <p>The representative of NMDC responded that they have standard matrix for analysis of these elements for conducting Hydro- Metallurgical Studies. It is also apprised that R&amp;D facility of NMDC can do these studies and NMDC can do prospecting followed by mining operation.</p> <p style="text-align: right;"><b>(Action: DMM, West Bengal &amp; NMDC)</b></p> <p><b>Agenda 2:</b></p> <p>GSI, ER is requested vide D.M.M., W.B.'s Letter No. 342 MDI2C-66312022, Date 22/09/2022, to narrow down the Target Zone for further stage of exploration in connection to the Rudra Gold Project in order to generate Feasible Auctionable Blocks for Composite License. Since, the Geological Report of Rudra Gold project is in G-4 stage covering an area of more than 25 sq. km., including the</p>

	<p><b>Mukutmanipur Dam and other Public utility structures, rescheduling of the area is necessary. Thus it is hereby requested to expedite the matter.</b></p> <p>It was informed by GSI that the Rudra Block co-ordinates plotted on Toposheet 73J/9 was submitted to DMM, West Bengal on 2<sup>nd</sup> August, 2021. Mukutmanipur Dam falls outside of Rudra Block area. Further, the issue already discussed under <b>para 62.04.25</b></p> <p><b>Agenda 3:</b>  <b>GSI, ER is hereby requested to provide us with the DGPS Block Boundary Report as per Part-IV-A, suitable for Auctionable Blocks in connection with Mining Lease, for Apatite Deposits of Mednitanr, Purdaha &amp; Pankridih of Purulia district, West Bengal. Thus it is requested to expedite the matter.</b></p> <p>GSI apprised the house that on request of DMM, West Bengal, SU: West Bengal, GSI has already submitted the Part-IVA report along with DGPS coordinate of blocks pertaining to Rare Metal (Beku, Belamu Block, Purulia), Cesium (Khatanga block, Purulia); Apatite (Chirugora &amp; Purdaha block, Purulia) on 04.02.2021 and the GR related to Mednitanr block has already been submitted to DMM, West Bengal.</p> <p>G3 stage of exploration on apatite in Pankridih area, Purulia District, was carried out by GSI, ER, during FS 2010-12 and boundary co-ordinates of this block covering 0.75 sq. km area was derived through Trimble Total Station machine, (Lat. 23°25'49" N - 23°26'32" N and Long. 86°18'16" E - 86°19'15"E). The work of GSI has been combined with previous work of DMM, WB during FS 1978-79 in this block and there was no resource augmented by G3 stage exploration of GSI during FS 2010-12. The Part IVA data is primarily based on the exploration work and its findings by DMM, WB during FS 1978-79. The GR has been sent to DMM, West Bengal for ready reference and comparative study related to the work done by DMM, WB during 1978-79.</p>
62.05.05	<p><b>Issue (Suggestion: CWC)</b></p> <p><b>Agenda 1:</b>  <b>Proposed Barinium HE Project; The proposed Barinium H.E. Project is in Kishtwar District of Jammu and Kashmir and is on river Chenab. Barinium H.E. Project is 323 km away from Jammu and 83 km away from District headquarter, Kishtwar. Chenab Division, CWC, Jammu has taken up the work of Survey, Investigation and preparation of DPR of this Project. The Assistance of GSI is required in Geo-Technical Investigation works i.e Drilling, Drifting and Geological mapping and preparation of Geological report of this Project . Tentative 10 Field visits are required in 2023-24. The MoU will be submitted in this regard to Jammu office of GSI after calculation of Quantum of work for year 2023-24.</b></p> <p>GSI has informed that DPR stage investigation of Barinium HEP is being carried out</p>

	<p>by GSI since FS 2019-20. Logging of the drill core samples at different sites has been carried out by GSI and notes have been submitted to CWC from time to time. GSI will carry out the geotechnical investigations of Barinium HEP during 2023-24 as and when required by CWC.</p> <p style="text-align: right;"><b>(Action: CWC &amp;GSI)</b></p> <p><b>Agenda 2:</b>  <b>Proposed Drass-Siru Link Project:</b> The proposed Drass-Siru Link Project is situated in Kargil district of UT of Ladakh. The site is located about 285 km from Leh and about 150 km from Srinagar. Chenab Division, CWC, Jammu has taken the work of Survey, Investigation and preparation of DPR of this Project. The Assistance of GSI is required in Geo-Technical Investigation works i.e Drilling, Drifting and Geological mapping and preparation of Geological report of this Project. Tentative 4 Field visits are required in 2023-24. The MoU will be submitted in this regard to Jammu office of GSI after calculation of Quantum of work for year 2023-24.</p> <p>Issue already mentioned under para 62.04.21</p> <p><b>Agenda 3:</b>  DPR stage field visit and geo-technical exploration is proposed during FY 2023-24 for the projects namely 1) Buroi Medium Irrigation Project, Assam 2) Burisuti Medium Irrigation Project, Assam 3) Medium Irrigation Project in Mebo Area, Arunachal Pradesh 4) Medium Irrigation Project in Kaya Valley Area, Arunachal Pradesh, under BBO, CWC, Guwahati for providing the geological inputs towards preparation of DPR.</p> <p>Issue already mentioned under para 62.04.21</p> <p><b>Agenda 4:</b>  3-D logging of drift for Tlawng HEP, Mizoram, Tuichang HEP. Mizoram and Mat-Sekawi HEP, Mizoram. Core logging of drill bore holes and Geological mapping in AutoCAD format for Tuichang HEP. Mizoram and Mat-Sekawi HEP, Mizoram.</p> <p>The MoU of Tlawng Hydroelectric Project was signed on 19.08.2021 for 2 years (FS 2020-21 &amp; 2022-23). Tlawng HEP drill core logging of the 14 bore holes (1250m) has been completed in FS 2021-22 and drifts are yet to be excavated. Plan has been submitted to the project authority and logging will be done after excavation and requirement of the project authority.</p> <p>Preliminary site visits for Mat- Sekawi HEP, Mizoram has been completed and field visit note has been submitted. The MoU is under progress.</p> <p>Preliminary site visits for the Tuichang HEP, Mizoram has been completed. The MoU is under progress.</p>
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	<p><b>Detailed Geological Mapping, Planning of sub surface exploration, Logging of drilled hole, Identification of suitable quarry site/Borrow area for the Construction Material Survey &amp; Reservoir Rim stability and Competency study for Madhura Irrigation Project, Cachar, Assam and Damring Irrigation Projects, North Garohills, Meghalaya.</b></p> <p>GSI informed that all the required geological/ geotechnical investigations will be attended by GSI as per the requirement of the project authority. Draft MoU has been submitted by GSI, NER to the project authority. Further GSI added that investigations are going on very smoothly with CWC.</p> <p style="text-align: right;"><b>(Action: GSI &amp; CWC)</b></p>
<b>62.05.06</b>	<p><b>Issue (Suggestion: DGM, Maharashtra)</b></p> <p><b>Agenda 1:</b></p> <p><b>I. PROPOSED FIELD PROGRAMME FOR FIELD SEASON 2022-23, DIRECTORATE OF GEOLOGY AND MINING, GOVERNMENT OF MAHARASHTRA, NAGPUR</b></p> <p>As per the provisions of MMDR Amendment Act, 2021 allocation of mines for major minerals will be done by way of auction only.</p> <p>Government of India has also framed rules with regards to mine allocation through auction. As per these rules before putting any area for auction existence of mineral resources are required to be established as per UNFC norms and provisions under Minerals (Evidence of Mineral contents) Rules, 2015 and Minerals (Evidence of Mineral contents) Amendment Rules, 2021. In view of this, Directorate has proposed following exploration programme for ensuing field season 2022-23.</p> <ol style="list-style-type: none"> <li><b>1) Reconnaissance survey scheme for locating Limestone in Mendholi-Warjhadi area, Tah. Wani, Dist. Yavatmal (T.S. No. 56 I/13) (G4 stage): -</b></li> <li><b>2) Preliminary exploration scheme for locating Limestone in Murti area, Tah. Wani, Dist. Yavatmal (T.S. No. 56 M/1) (G3 stage) :-</b></li> <li><b>3) Reconnaissance survey scheme for locating Limestone in Lingandoh area, Tah. Jiwati , Dist. Chandrapur (T.S. No. 56 M/02) (G3 stage) :-</b></li> <li><b>4) General exploration scheme for locating Limestone in Dhunki-Lakhmapur-Karva area, Tah. Korpana, Dist. Chandrapur (T.S. No. 56 M/1) (G2 stage) :-</b></li> <li><b>5) Reconnaissance survey scheme for delineating Kyanite-Sillimanite deposits in Dahegaon- Pardi area, Lakhandur Tahsil, Bhandara district. (T. S. No.55 P/13) (G4 stage)</b></li> <li><b>6) Reconnaissance Survey scheme to delineate Manganese deposits in Itpur-</b></li> </ol>

	<p><b>Lendezari area, Tumsar Tahsil, Bhandara district. (T. S. No. 55 O/10 and 55 O/11) (G4 stage)</b></p> <p><b>7) Preliminary exploration for Copper deposit in Lawari area, Tah. Chimur, Dist. Chandrapur (T.S. No. 55 P/11) (G3 stage) :-</b></p> <p><b>8) Preliminary exploration for delineating Bauxite/ Al- Laterite in Ambiwali and Kante area, Mandangad Tahsil, Ratnagiri district. (T.S. No. 47 G/1) (G3 stage)</b></p> <p><b>9) Preliminary exploration cum general exploration for delineating Bauxite/Al- Laterite deposits in Kudopi area, Malvan Tahsil, Sindhudurg district. (T.S. No. 47 H/11, 47 H/12) (G3/G2 stage)</b></p> <p><b>CONSTRUCTION MINERALS: -</b></p> <p><b>10) Reconnaissance survey scheme to delineate the areas suitable for extraction of on struction minerals and to locate other minerals of economic importance in Tah. Paithan and Aurangabad, Dist. Aurangabad (T. S. No. 46 M/6) (G4 stage)</b></p> <p>GSI has noted the proposed programs of DGM, Maharashtra for FS 2022-23.</p> <p>DDG, PSS-P&amp;M, GSI highlighted the effort of DGM, Maharashtra for sharing all the blocks in which they are taking exploration by themselves or with the help of any Private exploration agencies. He also requested all other DGM's to share their FSP's in the similar way to have synergy and avoid duplication.</p> <p style="text-align: right;"><b>(Action : All State DGMs/DMGs)</b></p> <p><b>Agenda 2:</b></p> <p><b>II. PROPOSED FIELD PROGRAMME FOR FIELD SEASON 2022-23</b>  <b>DIRECTORATE OF GEOLOGY AND MINING, GOVERNMENT OF</b>  <b>MAHARASHTRA, NAGPUR IN COLLABORATION WITH GEOLOGICAL SURVEY</b>  <b>OF INDIA</b></p> <p><b>1) Preliminary exploration for locating Copper and associated mineralization in Motegaon-Aregaon area, Tah. Chimur, Dist. Chandrapur (T.S. No. 55 P/11) (G3 stage)</b></p> <p>GSI informed the house that GSI and DGM Maharashtra signed MoU on 28/09/2022 to carry out G3 stage investigation titled "Preliminary exploration for copper and associated mineralisation in Motegaon-Aregaon area, Chandrapur district, Maharashtra" for FS 2022-23 and the investigation is under progress in collaboration with DGM, Maharashtra.</p> <p style="text-align: right;"><b>(Action: DGM Maharashtra &amp;GSI)</b></p>
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62.05.07	<p><b>Issue (Suggestion: FIMI)</b>  <b>To carryout geological exploration over limestone in the States of Bihar, Jharkhand and Odisha (Eastern Coast of India)</b></p> <p>GSI responded that GSI's exploration programmes have been prioritized for strategic, critical and fertilizer minerals as per the priority set by MoM. However, after receiving any specific request from concerned stake holders, GSI will explore the possibilities to mount projects on limestone in the States of Bihar, Jharkhand and Odisha (Eastern Coast of India).</p> <p>Additional Secretary, MoM advised DGM, Bihar to formulate programme on limestone and submit them to NMET for funding.</p> <p style="text-align: right;"><b>(Action: DGM Bihar, DGM Jharkhand &amp; DMG Odisha)</b></p>
62.05.08	<p><b>Issue (Suggestion: DGM, Ladakh)</b>  <b>Agenda 1:</b>  <b>Joint expedition to explore Semi-Precious Gem stones at Padum Zaskar valley Ladakh.</b></p> <p>GSI responded that as per discussion during the 1<sup>st</sup> SGPB meeting held with DGM, Ladakh on 17<sup>th</sup> September 2021, it was decided that DGM, Ladakh will propose a project on Semi-Precious Gemstone at Padum Zaskar Valley Ladakh. Reminder mail was sent to DMG, Ladakh on 09.01.2023 for submission of proposal on Gemstone investigation.</p> <p style="text-align: right;"><b>(Action: DGM, Ladakh)</b></p> <p><b>Agenda 2:</b>  <b>To study Stage-III and Stage-II investigations of Limestone deposit reported at Shargole, Kargil.</b></p> <p>GSI has not yet taken up investigation on limestone at Shargole area. However, if DGM, Ladakh sends any specific request with details of investigation to be taken up, GSI will explore the possibilities of taking up the investigation in future after studying the technical merit and assessment of the law &amp; order condition.</p> <p style="text-align: right;"><b>(Action: DGM, Ladakh)</b></p> <p><b>Agenda 3:</b>  <b>To study Coal deposits reported at Hemis-Shukpachan.</b></p> <p>GSI informed that the item on coal exploration at Hemis-Shukpachan area will be taken up for consideration after consultation with DGM, Ladakh.</p> <p style="text-align: right;"><b>(Action: GSI &amp; DGM, Ladakh)</b></p> <p><b>Agenda 4:</b>  <b>Geo-thermal energy studies at Chumathang hot springs.</b></p> <p>GSI, NR, Lucknow has carried out geothermal investigations at Chumathang during FS 1973-76 and later on during FS 2012-13 which was reassessed during FS 2017-</p>



	<p>18 for their potentiality and it was found that the potentiality of this field is maintained. Recently during 2022, ONGC Energy Centre, Delhi started extensive study for the potentiality and establishment of the geothermal based power plant with the technical inputs of GSI. Accordingly, GSI has collected some Geothermal water samples from Chumathang Geothermal field and analysis of these samples are in progress. After completion of analysis, brief report based on the interpretation of the analysis will be submitted to ONGC.</p> <p><b>Agenda 5:</b>  <b>To assist the Department of Geology and Mining in Geo-tourism studies of Geoheritage/Geo-tourist sites identified by the Department.</b></p> <p>GSI informed that all technical assistance will be provided from GSI pertaining to Geotourism studies of Geoheritage/ Geotourist sites identified by DGM, Ladakh, as and when required. GSI has already prepared a write up on Geo-Tourism prospects in the Union Territory of Ladakh (UT) which will be shared with DGM Ladakh shortly.</p> <p style="text-align: right;"><b>(Action: GSI &amp; DGM, Ladakh)</b></p>
62.05.09	<p><b>Issue (Suggestion: DGM, Tamil Nadu)</b></p> <p><b>Agenda 1:</b>  <b>Inclusion of industrial non-metallic mineral Calcite and Dunite, in the category of major minerals for grant of mineral concessions without any administrative lacuna.</b></p> <p><b>Agenda 2:</b>  <b>In cases of existing major mineral leases granted before the Amended Act, 2015 wherein 31 minor minerals were also granted as major minerals, the removal of these associated minor mineral includes the following difficulties:</b></p> <ol style="list-style-type: none"> <li>a. The grant of mineral concession for associated 31 minor minerals are granted for a period of 10 years as per State Government provisions in Tamil Nadu Minor Mineral Concession Rule, 1959.</li> <li>b. While renewal of major mineral lease, the lessee submit separate mining plan for major mineral viz., lignite for approval from Indian Bureau of Mines and separate mining plan for approval from the State Government for 31 associated minor minerals like silica sand, fireclay, ball clay etc.</li> <li>c. In case the lessee could not obtain permission in respect of associated minor mineral for want of Environment Clearance, the lessee is not able to remove the mineral and they are dumped and</li> </ol>

	<p>could not be utilized.</p> <p>d. Hence, it is suggested to amend the provision in such a way that in cases of existing / future grant of major mineral leases wherein associated 31 minor minerals exist, then the period of mineral concessions shall be granted to major minerals may also be made applicable to associated minor minerals to enable for submission of mining plan, Environment Clearance etc., and also to avoid loss of mineral wealth and revenue to Government.</p> <p>DGG-PSS-P&amp;M apprised that these issues have been already discussed.</p>																																													
62.05.10	<p><b>Issue (Suggestion: Geological Society of India)</b></p> <p><b>Why India is lagging behind in upgrading the country's huge mineral resources into mineral reserves?</b></p> <p>India is endowed with huge resources of some of the bulk minerals such as Iron ore, manganese ore, bauxite and chromite. But its effort in upgrading the existing mineral resources into reserves is dismal. As a pointer to the fact, the following table shows the reserves and resources of some of the minerals.</p> <p><b>Reserves and Remaining Resources of Minerals as on 1.4.2015 (in million tonnes)</b></p> <table><tr><th>Mineral</th><th>Reserves (A)</th><th>Remaining Resources (B)</th><th>Total Resources (A+B)</th><th>% of Reserves to Resources</th></tr><tr><td>Hematite</td><td>5422.00</td><td>17065.00</td><td>22487.00</td><td>24.00</td></tr><tr><td>Magnetite</td><td>53.00</td><td>10736.00</td><td>10789.00</td><td>0.5.00</td></tr><tr><td>Manganese</td><td>93.47</td><td>402.40</td><td>495.87</td><td>23.00</td></tr><tr><td>Magnesite</td><td>82.00</td><td>312.00</td><td>394.00</td><td>26.00</td></tr><tr><td>Chromite</td><td>102.00</td><td>242.00</td><td>344.00</td><td>42.00</td></tr><tr><td>Bauxite</td><td>324.00</td><td>656.00</td><td>980.00</td><td>49.00</td></tr><tr><td>Lime stone</td><td>16336.00</td><td>186889.00</td><td>203225.00</td><td>8.74</td></tr><tr><td>Gold Ore</td><td>17.22</td><td>484.61</td><td>501.83</td><td>3.55</td></tr></table> <p><b>Source: Indian Minerals Year Book 2020, IBM</b></p> <p>From the above table, it is clear that though the country is possessed with huge resources of some of the minerals, there is no concerted efforts by the Government to convert the resources to reserves. Except for chromite and bauxite, the percentage of reserves to resources of bulk minerals is quite meager. The most agonizing fact is that though the country possesses significant resources of magnetite to boast off, but only 0.5 % of the resources are proved reserves, while the rest 99.5% of magnetite resources are still to be upgraded to reserve category. This calls for a well-drawn plan to mount appropriate programmes for converting huge resources into reserves. With the new mineral policy, several private entrepreneurs have been allowed to do</p>	Mineral	Reserves (A)	Remaining Resources (B)	Total Resources (A+B)	% of Reserves to Resources	Hematite	5422.00	17065.00	22487.00	24.00	Magnetite	53.00	10736.00	10789.00	0.5.00	Manganese	93.47	402.40	495.87	23.00	Magnesite	82.00	312.00	394.00	26.00	Chromite	102.00	242.00	344.00	42.00	Bauxite	324.00	656.00	980.00	49.00	Lime stone	16336.00	186889.00	203225.00	8.74	Gold Ore	17.22	484.61	501.83	3.55
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	<p>exploration to establish the mineral resources. Besides, there are several Government agencies such as GSI, or public undertakings such as NMDC, MECL who are fully involved in the mineral exploration. It would be apt on the part of the Government to advise some of these agencies to formulate appropriate programmes to undertake the said task so that the mineral based industries do not starve due to the short supply of raw materials in future. This would not only enhance the country's mineral wealth but also helps in prudent planning of the mineral industries and save the country's scarce exchequer in importing some of these minerals.</p> <p>With the introduction of auction regime through MMDR Amendment Act in 2015, auctionable blocks are being carved out from these exploration blocks. The recent amendments in MMDR Act 2021, has led to the simplification of exploration regime which enables the Mineral Blocks to be auctioned as Composite Licence at G4 level of exploration instead of G3 level as per the earlier standard. For certain mineral commodities, ML could be given at G3 level instead of G2 level as per earlier standard. Therefore, all the exploration agencies are invariably involved in generation of the mineral 'resources'. The lessee, after getting the block in auction, has to undertake exploration up to detailed exploration stage and carry out pre-feasibility and feasibility studies for upgrading the 'resource' to 'reserve'.</p>
62.05.11	<p><b>Issue (Suggestion: IIT-ISM, Dhanbad)</b></p> <p>The Department of Applied Geology of Indian School of Mines (presently Indian Institute of Technology (Indian School of Mines) Dhanbad, had been long associated with Geological Survey of India, Atomic Minerals Directorate for Exploration and research and several other Government organizations and Public sector Undertakings, in the fields of academic and professional training of their esteemed officers, Collaborative research in the fields of exploration and mapping, and mining productivity and quality control operations. Our faculty represents in the expert committee of NMET, DST (SERB) and several wings of the Ministry.</p> <p>1) It is hereby proposed that the Department of Applied Geology may be considered as a joint partner in the projects of exploration of strategic minerals and specialized thematic mapping of GSI. The role of the Department of Applied Geology will be to monitor, generate and analyze data, provide research inputs and technically support mapping and exploration operations to generate next generation maps of practical value.</p> <p>Department of Applied Geology, IIT(ISM) Dhanbad, may submit exploration proposals directly to NMET for funding.</p> <p style="text-align: right;"><b>(Action: IIT (ISM) Dhanbad)</b></p> <p>2) It is hereby proposed that the Department of Applied Geology can be</p>

	<p>considered as a training hub for officers working in FSP items. The Ministry of Mines can refer to need-based training for short periods (one week to two weeks) in the field of exploration drilling, mining, planning of boreholes, data analytics, structural geology, field mapping and documentation, Ore petrology and Ore genesis, and geomodelling. Even though the GSI has a full-fledged Training Institute, IIT (ISM) can in many ways augment the quality of training in the Department of Applied Geology.</p> <p>The issue is already mentioned in para 62.04.27</p> <p>3) The Department of Applied Geology and the Department of Mining Engineering has developed a full-fledged Rock Mechanics and Engineering Geology Laboratory. Research of societal impact is done in the fields of Landslides, Slope failures in mines, Mine Hydrogeological problems, dam stability and leakage analysis, urban soil cover management and several other aspects. It is hereby proposed that the Ministry of Mines give need-based assignment projects of practical interest to the Department of Applied Geology of IIT (ISM) as independent investigations and also for the service and support of its organizations.</p> <p>IIT-ISM Dhanbad may collaborate with GSI for such works.</p> <p style="text-align: right;">(Action: IIT-ISM, Dhanbad)</p>
62.05.12	<p><b>Issue (Suggestion: Tamil Nadu Minerals Limited)</b></p> <p><b>Agenda 1: Critical mineral de-reservation</b></p> <p>Government of India, Ministry of Mines Public consultation No.M.VI, and dated 25.05.2022 says that to omit 8 out of 12 group of minerals from Part B of the first schedule of MMDR Act and create new Part-D in the first Schedule (Critical &amp; Strategic Minerals) and Central Government empower to auction concessions, if required, for the mineral in Part-D of the first Schedule. The Power of the Central Government to auction will be in addition to the power of the State of Government The CGPB may recommend to Ministry of Mines, Gol not to allow private players to be part of critical mineral mining.</p> <p>MoM Clarified that this matter is a part of the Cabinet Note. It cannot be taken up in forums like CGPB.</p> <p><b>Agenda 2: Fund for purchase of equipment for exploration under NMET:</b></p> <p>Ministry of Mines, NMET, Letter F.No. 6/9/2015-NMET/294, dated 23.03.2022 says that Central Government organization like IBM, GSI etc. will be given fund from NMET for the purpose of procurement of machinery/ equipment instruments and other latest technological up gradations of the existing equipment/</p>

	<p><b>software etc. for mineral exploration work. Similar concession may also be given to TAMIN being a State Public Sector undertaking.</b></p> <p>MoM responded that as per the letter issued by NMET vide 6/9/2015-NMET/294, dated. 23.03.2022, financial assistance through NMET will be provided to Central Government organisations like IBM, GSI etc. and the Department of Mines &amp; Geology, Directorate of Geology &amp; Mines of State Government. There is no such provision of NMET fund for Central/State Public sector undertakings. The same has been communicated to Additional Chief Secretary, Industries, Investment Promotion and Commerce Department, Government of Tamil Nadu vide a D.O. letter dated 5th January, 2023 from the Secretary, Mines.</p>
<b>62.05.13</b>	<p><b>Issue (Suggestion: MoES)</b></p> <p><b>Brain Storming workshop on “Active Fault Mapping and Related Studies in Northeast India” was held at IIT, Guwahati on 11-12 August, 2022 as an initiative to sponsor/take up pilot projects for active tectonic domains of Northeast India that include: i) Himalayan Foothills segment covering MBT -MFT/Deformation Front, within the region between Sankosh River in the west (Kumargram) and Siang River (Pasighat) in the east; and (ii) Belt of Schuppen (between Haflong, North Cachar Hills, Assam in the southwest and Miao, Changlang District, Arunachal Pradesh) and Tripura fold belt in the northeast as well as Dauki Fault.</b></p> <p><b>A Task Force with Retd. Senior GSI officials along with other experts from different institution has been constituted by the Ministry of Earth Sciences (MoES) for guiding and vetting all the active fault maps generated under the Active Fault Mapping Projects supported by the Ministry of Earth Sciences.</b></p> <p><b>A total of 25 participants including experts from GSI were invited to discuss on the current state of knowledge during the workshop and share their views and ideas concerning research gaps in the study of active tectonics in NE India. Participants were also asked to give a short presentation on a specific topic that could directly or indirectly help to move forward with the prospective research objectives on 'Active Fault Mapping of NE India', which will be adequately addressed by involving GSI for smooth execution of the said project.</b></p> <p><b>Since NE region is very significant for power projects, proper mapping of sites/area is required to identify active fault in NE region. Hence, synergy in all the participants have to be more for coordinating the AFM activity in NE region to produce a useful atlas of AFM maps. It was suggested during the workshop that larger orientation of transverse/longitudinal faults need to be addressed by all with the support of GSI and neotectonics zones may be identified using the compendium of tectonic map of India (freely available since June 2022 by GSI) and U-series dating may be utilized for dating of active tectonics.</b></p>

	<p><b>GSI, being a knowledge resource of wealth of data sets, maps, experience and expertise, its involvement towards facilitation of the said project on Active Fault Mapping of NE India may please be considered.</b></p> <p>DDG-PSS-P&amp;M apprised that the proposal regarding collaborative work between MoES and GSI on Active Fault Mapping is very much welcome. In fact GSI has been doing Active Fault Mapping and Seismo-tectonic studies from long time. GSI has also popular publications on these studies which are regularly consulted and referred by academicians, researcher and students.</p> <p style="text-align: right;"><b>(Action: MoES)</b></p>
<b>62.05.14</b>	<p><b>Issue (Suggestion: MECL)</b></p> <p><b>Agenda 1:</b>  <b>During the formulation of proposal, MECL facing problem with overlapping issue with GSI blocks. It is requested that the FSP should be published with block geographical coordinates and Toposheet no. It will be helpful for NEA's to formulate the proposal of exploration without overlapping issue.</b></p> <p>GSI responded that GSI finalizes its Field Season Programme (FSP) including mineral exploration projects taking into consideration the request received from stake holders through detailed deliberation in different CGPB sub-committee level meetings followed by main CGPB meeting to avoid any duplication of work and also to maintain synergy with other national exploration agencies. The details of the FSP is also published in Summary of Annual Programme which gets approved in the main CGPB meeting and circulated to all concerned. In addition to that these matters are also discussed in JWG and SGPB meetings.</p>
<b>62.05.15</b>	<p><b>Issue (Suggestion: NMDC)</b></p> <p><b>NMDC may try to identify Lithium in Oil brines/seepages along with Oil PSU.</b></p> <p>Representative of NMDC replied that the Chairman, NMDC has discussed with Oil India Limited to sign a MoU for research work to be undertaken at both end. He informed that MoU will be signed in 3-4 months.</p> <p>Additional Secretary Mines applauded NMDC for their focus on Lithium. He suggested to identify the well for sample collection and analyses.</p> <p>KDMIPE agreed to provide assistance in collecting the sample wherever feasible without any MoU.</p> <p style="text-align: right;"><b>(Action: KDMIPE &amp; NMDC)</b></p>
<b>62.05.16</b>	<p><b>Issue (Suggestion: DGM, Chhattisgarh)</b></p> <p><b>Agenda 1:</b>  <b>Most of the limestone bearing areas of the state have been explored by State DGM up to G-2 stage and till date 10 Limestone blocks have been auctioned successfully for grant of Mining Lease. GSI has provided few G-4 category</b></p>

	<p>limestone blocks for grant of Composite License. Considering the available reports of G-2 categories and on-going G-2/G-3 level exploration for limestone, GSI may kindly be requested to provide more and more G-3/G-2 category Geological Reports for Limestone as well as other minerals for auction of Mining Lease.</p> <p><b>Agenda 2:</b></p> <p><b>GSI has provided total 25 Geological Memorandum of G-4 categories and very few Geological Reports of G-3/G-2 categories. Despite repeated efforts, the State is facing difficulties in auctioning of G-4 blocks. Hence, GSI may kindly be requested to provide more and more G-3/G-2 Geological Reports after upgradation of concerned G-4 blocks.</b></p> <p>After MEMC-2021 amendment Rules, GSI does not take up G2 level exploration as limestone is under Schedule - II minerals. However, DGM, Chhattisgarh may upgrade the blocks to higher level of exploration, if the block is not auctioned after repeated efforts. For this purpose, the State DGM may carry out exploration through its own or through its PSUs, Government agencies like GSI, CPSEs like MECL or by hiring private exploration agencies.</p>
62.05.17	<p><b>Issue (Suggestion: WIHG)</b></p> <p><b>Proposal to carry out gravity-magnetic survey under NGPM programme of GSI.</b></p> <p><b>I. Instrument details</b></p> <ol style="list-style-type: none"> <li><b>1. Total number of Gravimeters available in the institute for the proposed work : Two</b></li> <li><b>2. Gravimeter Make/Model: LG-1 Galileo Land Gravity Meter</b></li> <li><b>3. Manufacturer of Gravimeter: GF Instruments, Czech Republic (EU).</b></li> <li><b>4. Resolution : 0.1 <math>\mu</math>Gal</b></li> <li><b>5. Proton Precision Magnetometers (TF): Nil</b></li> <li><b>6. DGPS unit: One</b></li> <li><b>7. DGPS unit Make: Geode, Juniper Systems</b></li> <li><b>8. DGPS Model: GNS3 GNSS multi-frequency</b></li> </ol> <p><b>II. Number of Toposheet which may be taken up for survey in one year</b></p> <p>The SOI, toposheet series under 1:50,000 scale that covers the survey are: 53-K, 53-N, 53-O, 53-P and 62-C. But the proposed area is mainly in the rugged Himalayan region where the connectivity is possible only along the available major roads. Hence profile type of surveys are only possible in this region. Accordingly, we would do profile Gravity and DGPS survey along the available major roads or selected profiles that covers mainly in the different sub-series of toposheet 53-O. In a year we can cover two such profiles under the sub-toposheets of 53-O series.</p> <p><b>III. No. of experienced Geophysicists/Personnel with Geophysics field training to carry out such surveys: Two Geophysicist and two support staffs.</b></p> <p>GSI informed the house that communications were made with the Wadia Institute of Himalayan Geology through E-mail correspondence dated 07.10.2022, 18.10.2022</p>

	<p>and 19.10.2022, and virtual meeting was held on 18.11.2022, regarding availability of instruments and experienced manpower, mapping capacity and willingness for participation in National Geophysical Mapping (NGPM) programme of GSI. In reply, WIHG has stressed on the gravity survey by traverse mapping along available roads/limited profiles only in the Himalayan areas. WIHG does not possess magnetometer, and has no immediate plan for magnetic survey which is indispensable for NGPM programme of GSI. Evidently, the objectives of NGPM cannot be fulfilled with present status of instrument availability and proposed work plan of WIHG. Therefore, GSI is not in a position to consider the award of NGPM survey work to WIHG at this stage. Accordingly, it was conveyed to the WIHG by E-mail on 29.11.2022.</p>
<b>62.05.18</b>	<p><b>Issue (Suggestion: Ministry of Mines)</b></p> <p><b>The Central Geological Programming Board (CGPB) is the apex body at the national level to overview the programme of geoscientific activities constituted primarily to co-ordinate activities on geological mapping and mineral prospecting, exploration and exploitation in the country with Geological Survey of India (GSI) as the nodal department and the State Geology and Mining departments and Central Government institutions as the participating members. Till now, 61 CGPB meetings have been conducted so far. However, with the development of new technologies like use of mobile apps and data management paradigms like use of data analytics, CGPB needs to conceptualize a virtual platform for easy accessibility of CGPB data for the stakeholders through development of a next generation state-of-the-art web portal for data capture, preservation and analysis. This will ensure quick and easy knowledge dissemination, accessible to all the stakeholders and other users also at any given point of time.</b></p> <p>GSI responded that the OCBIS portal already has one service module for CGPB, where user from different stakeholder can enroll themselves. The various meetings on CGPB can be created through the CGPB module and schedule of all the meetings are visible to registered user through CGPB dashboard. Moreover, all the documents related to CGPB are published in OCBIS Portal and accessible through CGPB Quick Link in current OCBIS Portal.</p> <p>The development of a next generation state-of-the-art web portal pertaining to CGPB may be taken up based on user inputs received after meeting and discussions with all stakeholders.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p>
<b>62.05.19</b>	<p><b>Issue (Suggestion: DGM, Jammu &amp; Kashmir)</b></p> <p><b>Agenda 1:</b></p> <p><b>Collaborative Programme with GSI on Electrical resistivity Survey of District Srinagar to know sub-surface structures and causes of widespread incidences in the District.</b></p>



	<p>GSI informed the house that collaborative programme between GSI and DGM, Jammu &amp; Kashmir on “Electrical resistivity Survey of District Srinagar to know sub-surface structures and causes of widespread incidences in the District” has already been discussed in the SGPB meeting. It has been requested to DGM, Jammu &amp; Kashmir to submit the detailed proposal to finalise the modalities of the survey. Proposal is yet to be received from DGM, Jammu &amp; Kashmir.</p> <p style="text-align: right;"><b>(Action: DGM, Jammu &amp; Kashmir)</b></p> <p><b>Agenda 2:</b> <b>Logistic support from GSI for digitization of Geological Reports of the Department under National Geoscience Data Repository (NGDR) Project.</b></p> <p>The workshop on "Concept, implementation of NGDR and role of stakeholders" was held on 12/01/23 at GSI, CHQ Kolkata and it was decided in the meeting that a team of GSI and BISAG-N will visit at DGM, UT: J&amp;K, Jammu as early as possible. In the meantime, DGM, UT: J&amp;K, Jammu is requested to make a catalogue/inventory of Exploration report and the same may be submitted to GSI CHQ, Kolkata.</p> <p style="text-align: right;"><b>(Action: DGM, Jammu &amp; Kashmir)</b></p> <p><b>Agenda 3:</b> <b>Furnishing the status along with Geological reports in respect of exploration studies of Limestone, Graphite or any Industrial minerals carried out by Geological Survey of India.</b></p> <p style="text-align: right;"><b>(Suggestion: DGM, Jammu &amp; Kashmir)</b></p> <p>GSI informed that 07 reports on Bauxite exploration was handed over to DGM, J&amp;K in 2016. 02 of Geological Memorandum (GM) on limestone and 01 No. of geological report on lithium (G-3 stage) was handed over to DGM, Jammu &amp; Kashmir in the 62nd CGPB meeting.</p>						
62.05.20	<p><b>Issue (Suggestion: DMG, Sikkim)</b></p> <p><b>Landslide Hazard Mapping and Detailed Geological Studies of Gaguney Landslide at Pathing, Yangang, Namchi district, Sikkim in 1:2000 Scale.</b></p> <p><b>BACKGROUND INFORMATION:</b> Gaguney landslide is located at Pathing under Yangang Sub-division, Namchi District, Sikkim. Geographically, the landslide is located at N27°18.235’ latitude E88°23.797’ longitudes and at an elevation of 2161 m amsl. The landslide is located approximately 4 km north-west of Yangang Bazar along Dozok-yangang road section at Pathing, Yangang, Namchi District, Sikkim (hill side). The detailed background information of the landslide are as follows: -</p> <table><tr><th>Sl. No.</th><th>Particulars, Name of the landslide</th><th>Comments</th></tr><tr><td></td><td></td><td></td></tr></table>	Sl. No.	Particulars, Name of the landslide	Comments			
Sl. No.	Particulars, Name of the landslide	Comments					

1.	District	Namchi	
2.	Sub-division	Yangang.	
3.	Name of Slide	Gaguney landslide	
4.	Geographical co-ordinates	Latitude N 27°18.235'	
5.	Altitude	longitudes E 88°23.797'	
6.	Lithology (Rock type)	2208m amsl.	
7.	Grade of Rock	Quartzite Phyllite.	
8.	Slide type	Low grade metamorphic rock.	
9.	Slide material	Rotational cum rock debris slide	
10.	Triggering factors	Highly weathered fractured/jointed quartzite phyllite rock intermixed with silty soil.	
11.	Dimensions of the slide	High rainfall pattern leading to high weathering of the rock.	
12.	Water activity	Length- Approximately 930m. Breadth-Approximately 260m.	
13.	Households affected	Medium	
14.	Infrastructure affected	Around 75 households.	
<p>GSI responded that the proposal will be considered in FS 2023-24 after consultation with DMG, Sikkim.</p> <p style="text-align: right;"><b>(Action: GSI)</b></p>			

## PLENARY SESSION-II

### Placing of Proposals of GSI pertaining to FS 2023-24 by Director General, GSI

<b>62.06.01</b>	<p>Director General, GSI presented “Proposals of GSI Pertaining to FS 2023-24” and conveyed the following:</p> <ol style="list-style-type: none"> <li>1. GSI has formulated 966 scientific programmes for the year 2023-24, which includes 318 programs under mineral exploration.</li> <li>2. Thrust has been given on exploration of strategic-critical and fertilizer minerals as per the present demand of our country.</li> <li>3. A total of 114 programmes on strategic &amp; critical minerals including 70programmes on Rare Earth Elements-Rare Metals and 14programmes on fertilizer minerals and have been proposed for FS 2023-24.</li> <li>4. Total 20 no. of items have been linked with State request/SGPB/CGPB recommendations.</li> <li>5. About 111 programs have been proposed under Public Good Geosciences.</li> <li>6. 37 programs in collaboration with national institutes, organizations, IITs etc.; 2</li> </ol>
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	sponsored training courses will be taken up with ISRO and 19 sponsored geotechnical projects with State Government Departments have been taken in FS 2023-24.
<b>Open Session for Discussion Chaired by Additional Secretary, Ministry of Mines, Government of India</b>	
<ul style="list-style-type: none"> <li>Representative of Ministry of New &amp; Renewable Energy (MNRE) requested to study the Geothermal/renewable energy across Pan India.  <p>DG, GSI responded that ONGC and GSI are carrying out geothermal studies in Puga area of Jammu &amp; Kashmir and the work is under execution. He requested MNRE to suggest some areas where Geothermal studies can be taken up.</p> <p>MNRE replied that around 300 pockets have been identified across India as shown in the earlier map. It is requested to regenerate the Geothermal Map of India based on the earlier and recent studies.</p> <p>DDG &amp; NMH-II, GSI responded that the Geothermal Atlas will be released today in the 62nd CGPB meeting.</p> <p>Additional Secretary, Mines suggested to the representative of MNRE that Policy may be framed for Geothermal exploration in potential areas across the country and also to keep provision of financial support to the company who would like to take geothermal exploration projects or preliminary studies.</p> <p>Representative of MNRE replied that the ministry has R&amp;D scheme wherein 100% and 50% support given to Government and Private institutions respectively.</p> </li> <li>DGM, Chhattisgarh informed that the State Government has received 29 proposals of NPS for NMET and in-principle approval accorded to 6 nos.  <p>One agency has given proposal for investigation of REE and tungsten where area for investigation is approximately 600 sq. km. DGM, Chhattisgarh inquired about the area to be given in the proposal for NMET funding.</p> <p>ADG &amp; HoD, GSI, SR and Chairman, TCC, NMET replied that the area for G4 investigation should be around 100 sq. km.</p> <p>Additional Secretary, Mines suggested that new and innovative ideas can be implemented with proper safe guard. He requested DGM, Chhattisgarh to submit the detail proposal to NMET along with cost estimate of the work to be carried out in different phases.</p> <p>He also informed that the draft cabinet note on amendment regarding introduction of exploration licence for deep seated minerals and critical minerals have been uploaded in website of Ministry of Mines. He requested delegates and participants of the Central Ministries / organizations, PSUs, State Departments, academic institutions and private entrepreneurs to comment on the draft cabinet note.</p> </li> <li>DGM, Jammu &amp; Kashmir requested that Geo-environmental studies may be carried out in</li> </ul>	

<p>Jammu and Kathua on urgent basis as the industrial areas are very close to it.</p> <p>GSI replied that at present, 2 years FSP on environmental geology covering part of Samba district up to Akhnoor is under execution. The 1st year work is already completed and 2nd year work is under progress.</p> <ul style="list-style-type: none"> <li>The representative of IREL enquired whether Government has any policy for further production of off-shore atomic minerals. It is also informed that atomic minerals present in off-shore are dynamic in nature. If the atomic minerals present in off-shore not taken today, the grade will increase or decrease. Therefore, if Government consider for allocation of production lease, it will benefit for getting the atomic minerals.</li> </ul> <p>Additional Secretary, Mines advised IREL to submit an application to the Ministry for obtaining lease.</p> <p>IREL replied that they do not have any co-ordinates of resources availability for off-shore heavy minerals.</p> <p>Additional Secretary, Mines advised IREL to obtain co-ordinates from GSI.</p> <ul style="list-style-type: none"> <li>NMDC informed that recently Kimberlite has been discovered in Chhatrapur district and diamond exploration facility in Panna has been created. NMDC requested Secretary, Mines; Additional Secretary, Mines and Director General, GSI to visit the laboratory created for diamond exploration facility.</li> </ul>	
<p align="center"><b>Presentation on “Remote Sensing and Aerial Survey, Activities and Achievements” by Shri Debkumar Bhattacharya, DDG &amp; HoD, RSAS, GSI</b></p>	
62.06.03	<p>Shri Dev Kumar Bhattacharya, DDG &amp; HOD, RSAS, Bengaluru presented talk on “Remote Sensing and Aerial Survey Activities and Achievements”. The salient points of the presentation are as follows:</p> <ul style="list-style-type: none"> <li>Generation of Aero-Geophysical data for the country is mandated by the NMEP 2016 for aiding exploration in India.</li> <li>GSI has planned to cover 7.78 lakh sq. km OGP are by NAGMP in first phase.</li> <li>Baseline geoscience data helps in interpretation of sub-surface geology and finding new exploration areas for concealed mineralization.</li> <li>Aero-Geophysical survey must be followed up with ground survey including ground geophysics, geological mapping, geochemical sampling and drilling (RMT followed by G4).</li> <li>NAGMP in 5 blocks so far identified 150 potential areas for taking up further mineral exploration projects.</li> <li>GSI has taken up 51 numbers of mineral exploration projects where aero-geophysical data has been utilized.</li> </ul>
<p align="center"><b>Presentation on “National Geophysical Mapping(NGPM)in Geological Survey of India by Shri. Anjan Rai Choudhuri, DDG,M-IIB, NEnR, GSI</b></p>	
62.06.04	<p>Shri. Anjan Rai Choudhuri, DDG, M-IIB, NEnR, GSI presented talk on “National</p>

	<p>Geophysical Mapping in Geological Survey of India". The key points of the presentation are as follows:</p> <ul style="list-style-type: none"> <li>• The main objectives of NGPM are (i) Generation of baseline gravity and magnetic data, (ii) Preparation of gravity and magnetic anomaly maps to identify potential areas for detailed studies in perspective of mineral prospecting.</li> <li>• NGPM maps will be an essential requirement for formulation of future mineral exploration strategies for all stake holders and also for understanding of subsurface geology and structures.</li> <li>• Data generated through these programmes will be available to on National Geoscience Data Repository (NGDR) as per the data dissemination policy.</li> <li>• Baseline Gravity-Magnetic data which is to be used by all stakeholders viz. industry, academia.</li> <li>• Basic anomaly data along with all derivative maps are to be used for deep-seated mineral targeting and/or sub-surface structure determination.</li> </ul>
<b>CONCLUDING SESSION</b>	
<b>Summary of CGPB deliberation discussion by Director General, GSI</b>	
<b>62.07.01</b>	<p>Summing up the day's proceedings, DG, GSI assured that GSI will take up additional programs on mineral exploration as suggested by Additional Secretary, MoM. He assured that GSI will work more energetically to generate more GR/GM for consideration in the auctioning process which in turn will contribute to the GDP of the Country.</p> <p>DG, GSI welcomed the suggestion of Additional Secretary, Ministry of Mines regarding expediting the exploration activities by initiation of active field work in April wherever possible for early finalization of GRs.</p> <p>Considering the suggestion of making the CGPB meeting more interactive through revisiting the format of CGPB meeting and change of place of holding of CGPB Meeting as advised by Secretary, Mines, DG assured the suggestion will be taken care of to have more fruitful deliberation in the CGPB Meeting.</p>
<b>Release of Publications</b>	
<b>62.07.02</b>	<p>Following publications were released on the occasion:</p> <ol style="list-style-type: none"> <li>1. Special Publication No. 77 "<b>A Manual of the Geology of India – Volume-I, Part-1 – Precambrian of Southern Part of the Peninsula- 5th edition</b>" by Southern Region, Geological Survey of India.</li> <li>2. Special Publication No.127 "<b>A Monograph on granites of Southern India</b>" by Southern Region, Geological Survey of India.</li> <li>3. <b>Geological and mineral map of Goa on 1:100000 Scale (Second Edition)</b> with explanatory brochure" by Southern Region, Geological Survey of India.</li> <li>4. <b>Geology and Mineral Resources of Union Territories of Jammu &amp; Kashmir</b></li> </ol>

	<p><b>and Ladakh</b>, Miscellaneous Publications No. 30, Part-X" by Northern Region, Geological Survey of India</p> <p>5. Catalog series No.11, "<b>Rock Cut Caves of Central India</b>" by Central Region, Geological Survey of India.</p> <p>6. Special Publication No.125 on "<b>Geothermal Atlas of India</b>" by Central Region, Geological Survey of India.</p> <p>7. Brochure on <b>Celebrating 75 Years of India's Independence</b> by Geological Survey of India Training Institute.</p> <p>8. <b>Training Calendar of Geological Survey of India Training Institute</b> for year 2023-2024</p>
<b>Handing over of GRs and GMs to State Governments</b>	
<b>62.07.03</b>	<p><b>Geological reports</b></p> <p>Sixteen (16) Mineral Exploration reports were handed over to representatives from 10 State Governments as mentioned below:</p> <p>Andhra Pradesh:One (1) G3 stage report on Manganese.</p> <p>Arunachal Pradesh:Two (2) G3 stage reports on Vanadium and Copper.</p> <p>Bihar:Two (2) G3 stage reports on Limestone and Iron (Magnetite).</p> <p>Chhattisgarh:One (1) G3 stage report on Potash.</p> <p>Jammu &amp; Kashmir:One (1) G3 stage report on Lithium.</p> <p>Karnataka:One (1) G2 stage report on Copper and Gold.</p> <p>Madhya Pradesh:Two (2) [1 G2 and 1 G3 stage] reports on Bauxite and Zinc.</p> <p>Maharashtra:One (1) G3 stage report on Bauxite.</p> <p>Rajasthan:Three (3) [1 G2 and 2 G3 stage] reports on Copper and Potash.</p> <p>Tamil Nadu:Two (2) G3 stage reports on Molybdenum.</p> <p>Apart from this, 17 reports on Coal and Lignite were also handed over to Ministry of Coal.</p> <p><b>Geological Memorandum</b></p> <p>Thirty five (35) geological memorandums of G4 potential blocks were handed over to representatives from 11 State Governments as mentioned below:</p> <p>Andhra Pradesh: Seven (07) GMs (Bauxite, Iron Ore, Manganese and Lithium).</p> <p>Chhattisgarh:Four (04) GMs (Gold, Tungsten and Basemetal).</p> <p>Gujarat:Two (02) GMs (Bauxite and Limestone).</p> <p>Jharkhand:Three (03) GMs (Base metal and Gold).</p> <p>Jammu &amp; Kashmir:Two (02) GMs (Limestone).</p>

	<p>Karnataka:Four (04) GMs (Ni-PGE-Gold, Mn-Fe, and Cobalt).</p> <p>Madhya Pradesh:Five (05) GMs (Graphite, Al-Laterite and Bauxite).</p> <p>Odisha:Three (03) GMs (Manganese, Tin and Phosphorite).</p> <p>Rajasthan:Three (03) GMs (Basemetals).</p> <p>Tamil Nadu:One (01) GM (Limestone).</p> <p>Telangana:One (01) GM (Iron Ore).</p>
<b>62.07.04</b>	<b>Concluding remarks by Shri Vivek Bharadwaj, Secretary, Mines</b>
	<p>In his concluding remarks, Shri Vivek Bharadwaj, IAS, Secretary, M/o Mines stated that the target fixed for handing over of 500 blocks by MoM was huge. He expressed his satisfaction that GSI has handed over around 300 blocks to different State Governments well within the time frame. For all the pain staking efforts, credit goes to GSI officials who have participated in this task. He informed that, for the first time in the country, lithium resource has been identified in J&amp;K. He emphasized that for becoming "AtmaNirbhar" in critical minerals it is very important to locate &amp; search for these minerals in different parts of the country and process them. He further added that India is dependent on imported Gold and GSI did appreciable work by submitting 5 blocks of Gold to different State Governments. He requested all the State Government representatives for auctioning of the blocks at the earliest which will increase the revenue of States, increase employment generation and income of the common people. In the end, he congratulated all the GSI officials, State representatives and different stakeholders for making the meeting successful.</p>
<b>Vote of thanks</b>	
<b>62.08.01</b>	The meeting ended with vote of thanks proposed by ADG & HoD, SR.

#### Annexure-I

#### LIST OF PARTICIPANTS

Sl. No.	Name	Designation	Department/ Organization	Contact No.	E-mail id
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