

MINUTES OF THE 46th MEETING OF THE CENTRAL GEOLOGICAL PROGRAMMING BOARD HELD AT NEW DELHI ON 11.02.2010 and 12.02.2010

46.0.00	The 46 th meeting of the Central Geological Programming Board (CGPB) was held on 11 th and 12 th February, 2010 at ICAR Complex, Pusa, New Delhi. Smt Shanta Sheela Nair, Secretary to the Govt. of India, Ministry of Mines (MOM), inaugurated the meeting. On the occasion an exhibition was organized at ICAR Complex, which was opened by the Secretary, Ministry of Mines. The activities of GSI, especially on Mission: I Baseline Geoscience Data Generation, through maps, charts and samples were displayed in the exhibition. Pamphlets specially prepared for the occasion, depicting the activity of the mission as well as the organization were distributed in the exhibition. Live demonstration of GSI portal was arranged both in the exhibition hall and auditorium. In addition to GSI, Hindusthan Copper Limited (HCL) Indian Bureau of Mines (IBM) and Mineral Exploration Corporation Limited (MECL) and FIMI also participated in the exhibition and highlighted their activities and achievements through audio-visual presentations, reports, pamphlets, posters and samples. Special Secretary (Mines) Shri S. Vijay Kumar and most of the CGPB members also visited the exhibition. The Secretary, Special Secretary and others appreciated the exhibition. On the occasion a brochure on “Catalogue of published maps of Geological Survey of India” was released by the Secretary (Mines). A list of Members/Participants of the 46 th meeting of the Central Geological Programming Board is annexed as Annexure – I.
46.1.00	WELCOME ADDRESS BY THE MEMBER SECRETARY, CGPB.
46.1.01	At the outset Dr. B. Chattopadhyay, Additional Director General (PSS – P & M), Geological Survey of India (GSI), and Member Secretary, CGPB welcomed the Secretary, Ministry of Mines and Chairperson CGPB, Special Secretary (Mines) and all the participating members of the CGPB which includes DG, GSI, representatives from State and Central Government departments, PSUs and Private Entrepreneurs and other participants including all the HODs of GSI. He hoped that those two-day long deliberations will be a fruitful one and the outcome will facilitate the process of Annual Programme formulation of GSI for the Field Season 2010 – 2011.
46.2.00	WELCOME ADDRESS BY DIRECTOR GENERAL, GSI.
46.2.01	Shri N.K.Dutta, Director General (Acting), Geological Survey of India welcomed Smt. Santha Sheela Nair, Secretary to the Government of India, Ministry of Mines and Chairperson CGPB, Shri S. Vijay Kumar, Special Secretary (Mines) and all the participating members of the CGPB. He thanked all State governments and State and Central institutions for participating in the CGPB and expressed that deliberations in the next two days will be lively and fruitful.
46.2.02	He stated that the Chairperson of CGPB, Ms. Santha Sheela Nair, Secretary to Govt. of India, Ministry of Mines has been a source of inspiration and

	had given guidance in various affairs relating to the growth and capacity building and development of GSI to make it at par with other similar surveys of the world. He placed on record the contribution made by Shri S. Vijay Kumar, Special Secretary, Ministry of Mines for his inspiration in reorienting the CGPB and efforts towards larger participation of all the stakeholders in the meeting. He further mentioned that the exhibition is an outcome of the inspiration given by the Special secretary.
46.3.00	ADDRESS BY CHAIRPERSON
46.3.01	Ms. Santha Sheela Nair, Secretary to Govt. of India, Ministry of Mines inaugurated the function. In her inaugural address she expressed her pleasure in participating in the CGPB meeting and inaugurating the exhibition. She described it as a meaningful event and informed that GSI should gear up to meet a couple of immediate challenges – (i) to meet the requirement of the States in full, and (ii) to generate more demands for the states. Chairperson opined that although GSI’s initiative to reorient itself to form partnerships with the States and Central institutions in furtherance of geoscientific activities is appreciable but the quality and quantity of the work has to be improved and increased as more and more demands are being placed by the States. She hoped that the new MMDR Act and the Mineral Policy would go a long way in meeting the expectations of the mining industry.
46.3.02	Speaking on the technological advances the Chairperson commended GSI for being ahead of many countries in using remote sensing application for geological surveys. She stressed that the States should integrate their facilities with GSI to accelerate the pace of development and urged the States to ensure full participation in the CGPB deliberations in order to ensure that their work is complimentary to the work of GSI. She also desired more participation from the industry and establishment of partnership between industry and Government organizations.
46.3.03	Secretary informed the house that a wealth of data has been put by GSI in the public domain free of cost. She urged the mineral industries to make use of the data generated by GSI and carry forward the work to enable GSI to take up work in other areas. <p style="text-align: right;">[Action: All stakeholders]</p>
46.3.04	She opined that the sector of offshore mining will come in near future. She stressed upon the huge mineral potential of offshore areas of India with more than seven thousand km of coastline and cited the example of Namibia which is exploiting diamonds from its offshore areas. She stated that even offshore sand could go a long way in fulfilling the demand for construction material and also ease ecological pressure on the river environment. She requested the States to give special emphasis for mining of offshore material. <p style="text-align: right;">[Action: Concerned State DGMs]</p>
46.3.05	The Secretary wished the success of the 46 th CGPB meeting. She requested all to analyse the issues / agenda discussed from 40 th to 46 th CGPB meeting

	and take stock for further follow up of major issues still not fulfilled its goal. [Action ; GSI]
46.3.06	The Member Secretary thanked the Secretary for her words of encouragements and appreciation for the geologists. He assured that GSI will take up more work in the TW & EEZ in future and will buildup more constructive and meaningful partnership with the states. [Action ; GSI]
46.4.00	RELEASE OF GSI PUBLICATION
46.4.01	The Secretary released GSI's Miscellaneous Publication No. 30, Part XXII entitled "Geology and Mineral Resources of India". She congratulated Smt. Bhanumati Ramakrishnan, Deputy Director General (Rtd.), GSI, under whose supervision the publication was brought out. A copy of the publication was distributed to all the delegates of the 46 th CGPB.
46.5.00	CONFIRMATION OF THE MINUTES OF THE 45th CGPB MEETING HELD IN NEW DELHI ON 11.09.2009 and 12.09.2009
46.5.01	Member Secretary informed the house that the minutes of the 45 th CGPB held in New Delhi on 11.9.2009 and 12.9.2009, already circulated to all members of the Board, is also available in the GSI portal. As there were no comments, the minutes were confirmed.
46.6.00	REVIEW OF ACTIVITIES OF GEOLOGICAL SURVEY OF INDIA
46.6.01	The Director General, GSI, presented the review of activities and progress of work of GSI. He informed the house that the six regions of GSI are now functioning as Mini GSIs and are collaborating with all stakeholders for progress of geo-science in the country.
46.6.02	During the current field season GSI has taken up 45 programmes based on requests made by the States, wherein the Geoscientists from various States are associated in the collaborative programmes mainly in the field of mineral exploration. Director General mentioned about the collaborative on going projects with NRSC, SAC and De Beers. He further mentioned about the MoU between GSI and Orissa Mining Corporation for exploration of PGE and iron ore in the State. The contribution of GSI for various engineering projects in different parts of the country was also highlighted by him.
46.6.03	Director General informed that GSI is in the process of acquiring a new research vessel and a geotechnical vessel and has already acquired a helicopter which is being fitted with geophysical sensors and will be made operational soon.
46.6.04	He opined that in the field of training and capacity building GSI has established RTIs and FTCs in various parts of the country for the benefit of GSI as well as all the DGMs and other stake holders in the field of geoscience.
46.6.05	Regarding clearing of pending progress reports he pointed out that more than 500 progress reports have been cleared during the last five months. The reports are being uploaded on the GSI portal and he requested all stakeholders to make use of the available data.

46.6.06	The geological maps prepared by GSI on 1:50K scale are being compiled, digitised and uploaded in the portal. Till date 3065 maps have been uploaded. In the Phase -III of GSI Portal, a separate 1:50k map service will be in place in the public domain. GSI also proposes to collate and create database on all geophysical data including those generated by concession holders.
46.6.07	GSI is collaborating with IBM for resource inventory and Tenement Registry. It is changing its practice of resource estimation and in future it will be given in accordance with the latest version of UNFC. For earlier exploration reports, resource will be reassessed as per the UNFC system, he added. [Action: GSI]
46.6.08	National Geochemical Mapping (NGCM) is a priority program of GSI initiated during FS 2001-02. Out of a total target of 8.13 lakh sq. km spreading over 1132 toposheets, during the first phase, a total of 1.66 lakh sq km covering 280 full/part toposheets have been completed so far by systematic collection of samples in different parts of the country. Based on the number of elemental analysis the NGCM reports have been categorized into final, interim and progress reports and are being uploaded in the GSI portal. Till date, 28 such reports have been uploaded in the GSI portal.
46.6.09	Climate Change studies require multi-parametric database, he informed. One such database comes from the study of glaciers. GSI initiated studies on glaciers way back in 1906 and has released a book entitled 'Inventory of the Himalayan Glaciers' during the 45 th CGPB meeting.
46.6.10	GSI has been participating in the Antarctica expeditions since its initiation in the year 1981-82 and has been continuously monitoring the Dakshin Gangotri Glacier from 1982 – 83. GSI also participated in first three Indian-Arctic expeditions in collaboration with NCAOR. A 'Data Centre' has been created at GSI's Northern Region office as part of the 'National Action Plan for Climate Change'.
46.6.11	Director General requested all participating organizations to interact with the Regional Heads and State level Operational Heads of GSI before submitting their programme which they propose to be taken up by GSI during Field Season 2010-11 before 30 th April 2010 for consideration. [Action: All stakeholders]
46.7.00	DISCUSSIONS ON FOLLOUP ACTION ON THE DECISIONS OF THE 45th MEETING OF THE CGPB HELD AT NEW DELHI ON 11.9.2009 and 12.9.2009.
46.7.01	The status of the follow up action on the decisions of the 45 th CGPB was sequentially placed before the house by the Member Secretary, CGPB. He requested all to interact freely during the deliberation.
46.7.02	In relation to para 45.6.02 regarding making the CGPB an effective instrument for partnership between GSI and State Departments and holding regular SGPB meetings the Member Secretary informed that 40 programmes have been accommodated in the GSI's programme during the

Field Season 2009-10 based on State's requests out of which 18 programmes are in mineral sector. He further informed that regional HOD's will present the details of the programme and geoscience partnership with various States. He expressed his happiness that 23 SGPB meetings were held after the 45th meeting and requested to let GSI know if any further meeting was held and send the minutes. He requested the State DGMs to come up with more programmes and assured that if the programmes are not accommodated during the Field Season 2010 – 2011 they will definitely be considered in the subsequent Field Seasons.

[Action: All State DGMs]

Representative of DMM, West Bengal pointed out that they have submitted two projects out of which one has been undertaken and requested GSI to take up the other item on landslide zonation in Darjeeling district in collaboration with DMM, WB during the next field season.

[Action: DMM, WB / GSI]

Representative of DGM, Uttar Pradesh pointed out that one of their current field season programme i.e. investigation of potash in Banda district is based on the work carried out by GSI. He however pointed out that some samples were sent to GSI for analysis of REE which is still pending.

[Action: NR, GSI]

Reacting to the statement DDG, Northern Region requested to provide the details of the samples sent for Analysis.

[Action: DGM, UP]

Special Secretary (Mines) pointed out that to have an early response such problems be sorted out at the SGPB meeting without waiting for the CGPB. Member Secretary assured that GSI will definitely help in analyzing the samples and requested DGM to provide the petrography of the samples to constraint the analytical data, restrict the number of samples for analysis as GSI instruments are heavily loaded with analysis of NGCM samples and keep in touch with DDG, NR.

Representative of Andhra Pradesh informed that their request of taking up programme in the State has been accepted only to a limited extent and requested GSI to take up the remaining programmes in the next year.

Reacting to the proposal, DDG, SR informed the house that GSI has a resource constraint and will definitely accommodate some of the proposals in the next year. Representative of Andhra Pradesh appreciated GSI's manpower constraint and suggested GSI to take up programmes in Andhra Pradesh State in a collaborative mode on manpower sharing basis. Member Secretary appreciated the proposal and suggested DGM to discuss the issue

	<p>with DDG, SR in the next SGPB meeting. [Action: SR, GSI/ DGM, A.P.]</p> <p>Representative of Govt. of Tamil Nadu informed that their proposed two projects have been taken up by GSI but they requested for joint work of DGM and GSI. Member Secretary informed that DGM personnel could still join in the programme.</p> <p>Special Secretary (Mines) requested DGM to contact the State unit of GSI to operationalise the programme for mutual benefit of both GSI and DGM. [Action: SR, GSI/ DGM, TN]</p>
46.7.03	<p>On para 45.6.04 regarding bulk uploading of publication and post-2004 reports of GSI in the Portal, Member Secretary informed that Metadata of about 30,880 nos. of reports of GSI have been uploaded and 1069 nos. of full reports published after 2004 have been accommodated in the GSIPORTAL. In addition about 802 nos. of various published geological maps have been uploaded. He further pointed out that if any State has any specific requirement they may indicate so and the said report will be uploaded on priority.</p> <p>In response to the request made by DGM Orissa to allow GSI Op. Orissa to disseminate earlier information for preparation of the mineral inventory of the State, Member secretary pointed out that till 1990 all the reports as a routine were made available to all the State governments. Reports generated after 2004 are put in portal for viewing and for utilization purposes by the states. Reports generated between 1990 and 2004 are in the process of uploading.</p> <p>Special Secretary informed that if any State desires to have any report out of turn they can make their request.</p> <p>Responding to the proposal representative of Andhra Pradesh requested to provide reports of iron ore in the State. Member Secretary informed that GSI has stopped working in iron ore from early eighties and all the reports should be available with DGM. He requested DGM to go through the metadata available in the GSI portal and in case any specific report is not available with DGM they may point out and GSI will provide the report.</p> <p>Special Secretary desired to know how systematically the States have maintained the pre 1990 reports. Each State may point out that and depending upon the necessity GSI might have to change the uploading policy. He requested that DDG (IT) may arrange for uploading the specific report if any request comes from the State.</p>

	<p>Representative of Jharkhand pointed out that the newly created States do not have the reports. Member Secretary requested to go through the metadata and indicate which report is needed. GSI will prioritise those reports for uploading in the portal.</p> <p>[Action: ER, GSI/ DGM, Jharkhand]</p>
46.7.04	<p>After discussion, it was decided that uploading of all pre-1990 reports would be part of Phase III Project of GSI Portal.</p>
46.7.05	<p>Regarding para 45.6.05 for assessment of low-grade iron ore (+45%) in leasehold areas Member Secretary informed that for assessment of low-grade iron ore in lease hold areas exploration strategy is required to be defined by MoM.</p> <p>Reacting to the statement Special Secretary informed that two separate strategies has to be prepared for lease hold and free hold areas. He further pointed out that for leasehold areas IBM to go through the MCDR to see the rule position, the kind of direction that can be issued and how it can be enforced.</p>
46.7.06	<p>With regard to freehold areas, it was for GSI to plan out its programme after reviewing earlier MI Reports and assessing the areas; extent of work to be done and its phasing. He desired that GSI form a small group in Mission II to complete this assessment and present the Report in the September CGPB so that future FSP can factor in these requirements.</p> <p>(Action: DG, GSI/Head, Mission – II)</p>
46.7.07	<p>Jt. Secretary, MoM, informed that IBM is in the process of formulating and in the coming 10 days some definite guidelines will come out. She further informed that at this point of time IBM can share with the State government that this is a high priority area. She informed the States that some leasehold areas are with the PSU's. So PSU's are also to be considered while formulating the guidelines. She informed that Steel Authority of India has requested MECL for formulating the guidelines for SAIL.</p> <p>Special Secretary desired to know whether lower threshold values have been enforced for new mining plans.</p> <p>Representative of IBM replied that the scheme has already been enforced.</p> <p>Jt. Secretary informed that for the new mining scheme IBM has come out with definite guidelines and requested all States to ensure that approval for mining should be given if it complies with IBM guidelines.</p> <p>[Action: All State Governments]</p> <p>Representative of Geological Society of India informed that IBM should come out with the region wise resource assessment because they have the village level maps.</p>

	<p>Representative of IBM informed that for the existing mine although the resource assessment on the basis of surface data is being done it is not authentic as it is not supported by exploration data. He pointed out that in future IBM insist the lessee to take a cut off of 45% and assess the reserve.</p> <p>Special Secretary desired to know whether instruction has been issued in this effect and requested to discuss the issue in the committee meeting on Ferrous minerals. Jt Secretary informed that the instruction is available in IBM website.</p>
46.7.08	<p>In response to para 45.6.06 On tenement registry, mineral atlas, data filing requirements and responsibilities, dissemination of data of RP holders after the lock-in period, Member Secretary informed that GSI is maintaining the database and to streamline the data filing system GSI has requested IBM and the State Governments to provide information on the details of RP which have been relinquished by the MNC's upto 2009 and a copy of the firms application along with the grant letter/ notification of running and new RP granted by the States to the firm.</p> <p style="text-align: right;">[Action: IBM/ All State Governments]</p> <p>Reacting to the proposal Special Secretary (Mines) stated that the RP data kept with erstwhile AMSE should be distributed to the Regions to enable the Regions to become one-point reference for such data. He further pointed out that the present practice of submitting data by RP holders only to the State Governments should be dispensed with and the RP holders should send one copy each to GSI and IBM directly to avoid delay. He stated that when new concessions are issued, a copy of the same was being sent to the GSI Regional offices also so that data filing can be enforced. GSI would integrate it with other available data which should be made available in GSI portal after the lock-in period.</p> <p style="text-align: right;">[Action: All stakeholders /GSI]</p> <p>Jt. Secretary (P), informed the house that the system of Tenement Registry has been initiated by some States like Karnataka and Chhattisgarh. Madhya Pradesh has started the work in Katni district and Jharkhand has started digitization of cadastral maps.</p>
46.7.09	<p>On para 45.6.07 regarding priority sharing of data / maps of 1132 toposheets for GCM Member Secretary informed the house that out of a total of 8.13 lakh sq km area spreading over 1132 toposheet to be covered within the XIIIth Plan period, a total of 1.66 lakh sq km area spreading over 280 full/part toposheets have been covered by systematic geochemical mapping in different parts of the country. He further informed that depending on the number of elemental analysis NGCM reports have been classified into final, interim and progress reports. Till date 28 GCM reports have been put on the portal and the rest will be uploaded as soon as the reports are finalized. In case more manpower be deployed, the GCM work</p>

	<p>could be completed within the XIIth Plan period, he opined.</p> <p>Special Secretary (Mines) enquired whether the States can share human resource/ laboratories with GSI.</p> <p>Representative of Gujarat informed that two of their chemists are undergoing training at the GSITI. On completion of their training the possibility of sharing Human Resource would be explored.</p> <p>[Action: DGM, Gujarat]</p>
46.7.10	<p>Special Secretary (Mines) pointed out that GSI's NGCM programme was proceeding extremely slowly because of laboratory shortage. He stated that recruitment of chemists was being accelerated and that GSI must increase the number of its ICPMS so that by 2011-12 all old pending is liquidated, Reports are circulated and NGCM layers added to the spatial data in the Portal.</p>
46.7.11	<p>On para 45.6.08 regarding increasing demand in the field of Geoscientific activity for well trained professionals Member Secretary informed that to meet the increasing demand in the field of geoscientific activity for trained professionals, the Training Institute has proposed 19 courses during the field-season 2009-10 at different RTIs and FTCs for the geoscientists of state DGMs, Central Government and the stake holders in mineral sector.</p>
46.7.12	<p>In relation to para 45.6.12 regarding career progression and increased strength of S&T personnel Member Secretary informed that a Cabinet note in this regard has been approved by the ministry and circulated to various Ministries for their comments and reply have been received from some of the Ministries. He further informed that as GSI has been declared as an Attached Office, powers have been delegated to GSI to handle proposals regarding career progression for Non-ACC posts. No proposal is pending in the Ministry for ACC posts for the year 2009-10.</p>
46.7.13	<p>On para 45.6.15 regarding IBM making direct contact with lessees and granting excess mining permission without informing the States representative Member Secretary informed that as a matter of practice, Regional Offices of IBM are invariably endorsing a copy of the approved Mining Plans / Schemes of Mining, Modifications in approved Mining Plans / Schemes of Mining, etc. to the concerned State Governments. He advised the Regional Offices of IBM to initiate action / comply with the suggestions given in the para.</p> <p>[Action: IBM]</p> <p>Reacting to the discussion representative of DGM, Karnataka desired that IBM should consult or at least inform the States in the event of increasing /revising the mining plans of the lessees. The infrastructure available in the area should also be considered while doing so. Representative of the IBM agreed to the proposal.</p> <p>[Action: IBM]</p>

	<p>Special Secretary (Mines) pointed out that it may not always be possible for IBM to consult the States in each case. He advised the States to inform IBM of the available infrastructure in mining areas so that delays could be avoided.</p> <p>Representative of Gujarat proposed to have joint inspection by DGM and IBM to check illegal mining. Special Secretary informed that MoM will suggest a forum where IBM and States could interact on the issue.</p> <p style="text-align: right;">[Action: MoM]</p>
46.7.14	<p>As regards para 45.6.16 on implementation of the UNFC classification of ore reserves Member Secretary pointed out the feedback in this regard has been received from five States.</p> <p>In response to DGM, UP's concern over charging hefty fees for training, IBM stated that in future they would not charge any fees from the States. They would also be sending their faculty to the concerned States for the training on the request of the States.</p> <p style="text-align: right;">[Action: State DGMs / IBM]</p> <p>Special Secretary (Mines) desired that IBM should inform all the States that they would henceforth not be charging any fees for training. It also emerged that officers of Assam had already undergone training by IBM. On a similar request by Jharkhand IBM replied that they would be imparting training to officers of DGM, Jharkhand at Ranchi during the month of April 2010.</p> <p style="text-align: right;">[Action: IBM]</p>
46.7.15	<p>On para 45.6.19 regarding increasing the number of boreholes per sq km and increasing the diameter of the borehole it was informed by Member Secretary that a D.O. letter was sent from Secretary (Mines) to Secretary (Forests) requesting MoEF to issue special dispensation with regard to GSI in the form of exemption from provisions of guidelines 1.3(v) of the Handbook of Forest (Conservation) Act, 1980.</p> <p>Representatives of MECL and Kerala informed that several projects were pending for want of forest clearance from MoEF. Representatives of AMD and De Beers also expressed similar problems.</p> <p>Special Secretary (Mines) informed that a meeting is scheduled with the Cabinet Secretary and the issue will be raised during the meeting. He hoped that the problem is likely to be solved in the long run but for the present, the issues may be settled with the State Forest Departments in the traditional way. He further expressed that the problem may lie in lack of awareness with the District/State officers about the 2008 guidelines of Forest Conservation Act. MoM will write to MoEF requesting them to outline a simple procedure and time limit on the modalities to be followed by the</p>

	<p>State Governments in this regard.</p> <p style="text-align: right;">[Action: MoM]</p>
46.7.16	<p>On para 45.6.22 regarding handing over of fund to Nagaland Government by MECL for exploration of Nimi limestone Member Secretary informed that handing over of fund to Nagaland Government will be done on commencement of work for which correspondence has already been made for early initiation of work.</p> <p>Representative of Nagaland informed that drilling machines have been dispatched to the site and the work will commence by the end of Feb 2010. He desired that money be released immediately.</p> <p>Representative of MECL informed that sanction had been given by MoM but the funds could be released only after 90 days of work.</p> <p>Advisor, TPPC opined that since the project was already delayed by about 10 years, the two organizations could sit and discuss the matter to which the Special Secretary (Mines) agreed.</p> <p style="text-align: right;">[Action: MECL / DGM, Nagaland]</p>
46.7.17	<p>In relation to para 45.6.23 regarding supply of geological reports of coal free of cost for the promotional items, Member Secretary informed that MoM has conveyed approval to GSI for handing over information and geological reports in respect of regionally explored coal blocks to prospective entrepreneurs on a nominal cost (which should cover only the cost of printing). GSI has, however, been asked to ensure that the actual cost is recovered from the final allottee.</p> <p>Special Secretary (Mines) clarified that GSI is following the general policy in this matter.</p>
46.7.18	<p>Regarding para 45.6.24 on taking up of investigation of industrial minerals Member Secretary informed that GSI will draft guidelines for monitoring the process and for integrating third party data with its data sets for future FSP items. He further informed the house about the feedbacks received from some States.</p> <p>Special Secretary (Mines) desired that GSI may issue guidelines regarding the quality, format etc. in which data is to be filed by RP holders in respect of data generated by them.</p> <p style="text-align: right;">[Action: GSI]</p> <p>Representative of DGM, Manipur desired that GSI/IBM may train their people for exploitation of Serpentinites or alternatively they may take up the work on a collaborative basis.</p>

	<p>Reacting to the proposal Member Secretary requested Manipur to send their people to GSITI for training in study of dimensional stones and also informed that extraction of blocks was not in the purview of GSI.</p> <p>Representative of IBM also informed that they have no expertise in the matter as minor minerals are not under their purview.</p> <p>Advisor CTEMPO advised that help from NIRM could be sought.</p> <p>Representative of Karnataka informed that they have the expertise in the matter and could train in the mining/extraction of blocks without much blasting.</p> <p>[Action: DGM, Manipur / DGM, Karnataka]</p>
46.7.19	<p>On para 45.6.26 regarding training centre at Saketi – it was informed by the Member Secretary that FTC has been established at Saketi. A senior Director and a faculty are looking after the progress of work. Necessary arrangements are in place to conduct the Saketi Module for the participants of 32nd OCG batch ‘A’ from 12.03.10.</p>
46.7.20	<p>In relation to para 45.6.27 on assessment of reserves / resources of low grade phosphate, Member Secretary informed that extension of phosphorite investigation in Rajasthan will be taken up depending upon the results of present investigation in Gujarat.</p> <p>[Action: GSI]</p>
46.7.21	<p>On para 45.6.34 regarding geochemical mapping and strengthening of State DGMs it was pointed out by Member Secretary that the feedbacks received from some of the States points to ‘geochemical exploration / sampling’ which is different from ‘geochemical mapping’ <i>sensu stricto</i>.</p> <p>Reacting to the statement Special Secretary (Mines) assured that MoM will help the States in capacity building. Member Secretary also requested the States to take due care in capacity building.</p> <p>[Action: All State DGMs]</p>
46.7.22	<p>On para 45.6.37 regarding issues arising out of National Mineral Policy 2008 the Member Secretary informed that three meetings were held by MoM along with GSI, IBM and Planning Commission to oversee the implementation of the action points arising out of the National Mineral Policy 2008. He informed the house about the para wise action taken by GSI regarding implementation of NMP.</p>
46.7.23	<p>In relation to para 45.6.38 regarding simplified process for granting PL in coal blocks in a time bound manner Member Secretary informed that a consultative meeting was held between MoC with coal producing States but no feedback have been received from MoC. In the absence of representative of MoC in the meeting the point was not discussed.</p> <p>[Action: MoC]</p>

46.7.24	In response to para 45.6.43 regarding providing technical guidance by GSI in exploring occurrences of copper, lead and gold in the state of J and K it was pointed out by Member Secretary that after thorough discussion between GSI and DGM, J and K, two programmes were formulated for F.S. 2009-10.
46.7.25	Regarding para 45.6.48 on detailed exploration vis-à-vis forest problem raised by SCCL Member Secretary pointed out that SCCL has been pursuing the issue with the concerned ministry and requested to follow up for obtaining forest permission with MoEF from the AP Government side.
46.7.26	On para 45.6.51 regarding policy decision on GSI's request for reservation of an area where RP is already given or RP applied for, Member Secretary apprised the house about the reaction from some of the States.
46.7.27	<p>On para 45.6.53 regarding model coal mine in the State of Nagaland it was pointed out by Member Secretary that the required information is awaited from MoC.</p> <p style="text-align: right;">[Action: MoC]</p> <p>Representative of DGM, Nagaland stated that the matter was urgent as rat hole mining is being done illegally at several places.</p> <p>Special Secretary (Mines) advised Nagaland to adopt MMDR Act as it would help in curbing illegal mining.</p> <p style="text-align: right;">[Action: DGM, Nagaland]</p>
46.7.28	<p>In relation to para 45.12.02 regarding the annual programme of the Geological Survey of India for the Field Season 2009 – 10, Member Secretary pointed out that the programme gives the extent to which GSI could accommodate the various request made by the States. He gave a state-wise report of the programmes taken up by GSI at the instance of States request.</p> <p>On the issue of taking up iron ore investigation in Samchampi area of Assam Member Secretary informed that Iron ore investigation may be taken up at a later date depending upon the ground condition.</p> <p>On the issue of providing government land for construction of GSI office at Gangtok it was decided that GSI will write to MoM who in turn will write to Chief Minister of Sikkim to provide some government land to GSI.</p> <p style="text-align: right;">[Action: GSI / MoM]</p> <p>On the issue of reopening of the GSI's Aishmuqam training centre representative of Jammu & Kashmir opined that GSI may take its own view keeping the ground realities in mind. He requested association of State geologists with engineering geology projects being undertaken by GSI in Jammu & Kashmir so that the State geologist could be trained. Member Secretary reiterated that engineering geology is a specialized subject and people cannot be trained on short-term fieldwork. The association could be</p>

	<p>considered with the resident geologists of the projects on a long-term basis. [Action: GSI/ DGM, J&K.]</p> <p>On the issue of exploration of minor minerals in Himachal Pradesh it was informed by Member Secretary that on receipt of request from the States, GSITI will organize a customize course for imparting training to officials of DGM, Himachal Pradesh.</p> <p>On the issue of participation of DGM officials of Gujarat in cruises of Marine Wing of GSI as per GSI programme, Member Secretary requested to send their proposals. Representative of Gujarat informed that they would be sending their requests soon. [Action: DGM, Gujarat]</p> <p>Regarding the proposals submitted by DMM West Bengal for collaborative work with GSI, Director P and M, informed that the agenda had been received late and suggested that DMM can collaborate in future projects to which Member Secretary agreed. [Action: DMM, WB / GSI]</p> <p>On the issue of collaborative programmes between GSI and DGM, Jharkhand Member Secretary requested for providing information on areas which are forest free, lease free and the ground conditions are suitable. Representative of Jharkhand informed that they had prepared a map on the lease free areas. DDG, ER proposed joint traverses to identify the areas of collaborative work to which representative of Jharkhand agreed. [Action: ER, GSI/ DGM, Jharkhand]</p>
46.7.29	<p>In relation to para 45.12.05 regarding having a common pool of data repository between GSI and CGWB, Member Secretary informed that a committee comprising GSI and CGWB expert may be constituted to firm up the data structure for storing information related to sub-surface exploration of GSI and CGWB.</p> <p>Advisor, TPPC informed that the Ministry of Water Resources has given a proposal in this regard to MoM which is being examined by TPPC. [Action: TPPC (C-TEMPO)]</p>
46.7.30	<p>On para 45.12.06 regarding preparation of Master Plan on Earth Resources of India and presenting the idea as an agenda note during the next meeting of the Group XI committee Member Secretary informed the house that the matter was discussed in 2nd meeting of Committee XI and CGWB informed that their portal would go live shortly. GSI offered necessary help to CGWB and pointed out that they can work in collaboration with GSI and may also join the task force for ground water component.</p>
46.7.31	<p>In relation to para 45.12.09 regarding mapping of Aquifer System in a</p>

	<p>collaborative mode after discussion in CGPB Committee IX it was informed by Member Secretary that the matter has been discussed in the CGPB Committee-IX and GSI, Faridabad will take up the matter with CGWB, Faridabad.</p> <p>[Action: CGWB / GSI]</p>
46.7.32	<p>On para 45.12.11 regarding Collaborative Studies with GSI on aeromagnetic studies and geogenic causes of contamination of aquifer Member Secretary informed that GSI may work on specific proposals on collaborative mode during the Field Season 2010-11.</p>
46.7.33	<p>On para 45.12.12 regarding availability of 1 : 25,000 scale maps of GSI the Member Secretary informed that CGWB will require the detailed geological map on 1:25,000 scale for on-going activities including Artificial Recharge projects. He further informed that Regional Directors would contact the respective Regions of GSI for obtaining the map.</p> <p>[Action: CGWB]</p>
46.7.34	<p>In response to para 45.12.15 regarding collection of data on the depleted lignite reserve from concerned agencies by NLC and communicating the block wise depleted figure to GSI for incorporation in the National Inventory of Lignite, Member Secretary informed that NLC is passing the available data regularly to GSI for incorporation in their annual inventory. He requested that CGPB may give specific directives to declare NLC as nodal agency for collecting lignite information.</p>
46.7.35	<p>On para 45.12.16 regarding purchase of GR of GSI for Integrated Lignite Resource Information (ILRIS) project, Member Secretary informed that the issue was raised during several meeting of the Committee on Energy Minerals (Gr. III of CGPB), wherein after detailed deliberation NLC was advised to approach MoM for necessary guidelines in this regard. He further pointed out that some of the lignite exploration programmes are under promotional funding (Sponsored by MoC) and thus CMPDIL is the custodian of these GRs, for which communications have to made to MoC /CMPDIL.</p> <p>[Action: NLC]</p>
46.7.36	<p>On para 45.12.17 regarding handing over of data by Deputy Director General, Op.: Orissa directly to State Directorate after obtaining necessary approval from the Director General, GSI, and providing five year rolling plan to DGM, Orissa, Member Secretary informed that as per the new guidelines on dissemination of information of GSI, DGM, Orissa may get the relevant information. He further pointed out that the five year rolling plan of Orissa, is under preparation and will be submitted to CGPB after approval.</p> <p>[Action: DGM, Orissa]</p>
46.7.37	<p>In relation to para 45.12.19 on International Commission on Stratigraphy and creation of Indian Stratigraphic Commission it was informed by the</p>

	<p>Member Secretary that the head of Mission-I has already circulated this agenda on a Unified Stratigraphic Legend in the policy formulation for Mission-I and it was circulated to all HODs, reply from the HOD's are awaited.</p> <p>[Action: HODs, GSI]</p>
46.7.38	<p>In relation to para 45.12.28 regarding joint exploration for PGM in Sukinda Valley by GSI and DGM, Orissa and taking up the detailed work by MECL, Member Secretary informed the house that MECL is willing to take up the exploration work and written to DGM, Orissa in this regard. Reacting to the statement representative of DGM, Orissa informed that they have submitted the required formation to MECL for taking up the work on promotional basis. Representative of MECL agreed to look into the proposal.</p> <p>[Action: MECL]</p>
46.7.39	<p>Regarding para 45.12.29 on finalisation of MoU for joint exploration for Gold in part of Keonjhar district by GSI and DGM, Orissa, Member Secretary informed that the five year rolling plan of DGM, Orissa and GSI will take care of the proposal. The detailed proposal may be discussed in the relevant Committee II meeting, he opined.</p> <p>[Action: DGM, A.P./ Convenor, Com. -II]</p>
46.7.40	<p>In relation to para 45.12.31 and 45.12.32 on Gold and PGE exploration in southern part of Sindhurg and Solapur districts, Maharashtra by taking up joint traverse by GSI and DGM, Maharashtra, Member Secretary informed that officers of GSI, Operation Maharashtra and DGM, Maharashtra took joint traverses in the areas and collected 16 bedrock samples which were processed and submitted for analysis.</p> <p>Representative of DGM, Maharashtra informed that preliminary data have been provided by GSI. DDG, GSI, CR informed that gold values were below detection limit in all the samples and analysis for PGE is in progress.</p> <p>[Action: GSI/ DGM, Maharashtra]</p>
46.7.41	<p>On para 45.14.01 regarding updating of documents showing GSI Field Season Programmes in Mission and Region mode in the GSI portal (FS 2009-10) Member Secretary informed that all the programmes of GSI for the Field Season 2009-10 are in Mission / Region mode and the FSP document has been updated on the basis of the decision taken in 45 CGPB meeting and circulated.</p>
46.7.42	<p>On the issue of functioning of GSI Regions as Mini-GSIs and development of linkages between State Governments and Regional and State Units of GSI, member Secretary informed the house that the direction is being complied.</p>
46.7.43	<p>On the issue of archiving of geophysical data in data repository and linking</p>

	it to portal after the lock in period and issuance of guidelines by MoM, Member Secretary informed that GSI, after discussing the issue with NIC, has prepared a document on the framework of GP Data Repository. The data will be uploaded during Phase III of GSI Portal.
46.7.44	On the issue of providing guidelines by GSI regarding release of part-NGCM data and reports and their placement on Portal, Member Secretary informed the house the issue has already been discussed while discussing para 45.06.07.
46.7.45	On the issue of limiting GSI's regional mineral exploration to three years in case there are RP/PL applications, Member Secretary informed that GSI will take three years in case of P-I & P - II stage while maximum six years for E - I & II stage of exploration.
46.7.46	On the issue of starting new programmes by GSI for generating shallow subsurface (100 to 300 m) database, Member Secretary informed the house that GSI has started a new Mission Office at Faridabad and a future plan / projection is being prepared through elaborate discussions with CGWB.
46.7.47	<p>On the issue of maintaining a systematic Core Repository by GSI, Member Secretary informed that GSI has started preserving drill cores of selected drill holes of mineralized sections and important stratigraphic columns for posterity with a view to create a National Drill Core Repository. He however pointed out that GSI is facing a shortage of manpower for the purpose.</p> <p>Special Secretary informed that as per the new MMDR Act it would be mandatory to preserve the drill cores and GSI would be the nodal agency and suggested that MECL can also keep its cores that have no commercial value, with GSI. Possibility of States and GSI having a common core library should be explored. Preservation of cores collected during geotechnical investigations should be considered on their utility.</p> <p>[Action: GSI/ MECL]</p>
46.7.48	On the issue of giving more attention to fertilizer minerals and base and noble metals member Secretary informed the house that the Conveners of CGPB Committees will present the status on the issue.
46.7.49	On the issue of rationalizing the policy by GSI on exploration for iron ore when private enterprise is ready, Member Secretary informed that as per directions of MoM GSI has initiated exploration for iron only in lease free areas. GSI would refrain from taking up areas where there is an interested private entrepreneur.
46.7.50	On the issue of GSI Portal, Member Secretary appraised the house that regular updates are being provided to the Ministry on all points related to GSI portal.
46.7.51	On the issue of participation of State Remote Sensing Centres in the Airborne and Remote Sensing Committee for adequate coordination Member Secretary informed that the State Remote Sensing Centres had been inducted in the CGPB Committees. He offered all States to give their

	<p>proposals on priority areas for aerial survey and marine survey to be undertaken by GSI. Member Secretary agreed to the proposal of Jharkhand for taking up the work on collaborative mode and requested DGM, Jharkhand to write to the Convener of the CGPB Committee-VII for their inclusion as a member.</p> <p style="text-align: right;">[Action: DGM, Jharkhand]</p>
46.8.00	PRESENTATION BY STATE DEPARTMENTS
46.8.01	<p>Director, DGM, Orissa made presentation on the Five Year Perspective Plan of Exploration. He appraised the house about the projects being undertaken during the current field season and to be taken up in future on various mineral commodities. Member Secretary expressed his pleasure on the number of projects undertaken by DGM, Orissa. He requested DGM, Orissa to contact GSI Op. Orissa so that the work done in the State by the two organizations are mutually exclusive.</p>
46.8.02	<p>Director, DGM, Andhra Pradesh gave an overview of their activities and achievements in the State and mentioned that Andhra Pradesh is the second largest store house of mineral resources which include vast resources of Coal, Limestone, Bauxite, Barytes, Mica, Beach Sands and Granite. He informed the house that during 2008-09 the department has carried out regular inspections and surveys in the process of granting leases and regulation and disposed 8547 applications out of 21770 applications for both major and minor minerals. The Director mentioned that DGM is planning to send their personnel for field training in GSI. He expressed that the State government is apprehensive of the fact that in light of new Mineral Policy, there is a possibility of sudden change in the mind set of entrepreneurs to block and explore over vast areas for grounding of Mineral Projects, and voiced his concern that since most of the surface deposits are under the lease holds there is a need to explore deep seated or extension deposits through modern geophysical, geochemical and geological methods. He further appraised the house that the SGPB meetings were held in the State and requested GSI, NGRI, IBM, NML etc., to extend their infrastructural facilities to universities and Directorates of Mines and Geology for a first hand experience. In the concluding remark Director, DGM mentioned that the Geophysical wing of GSI has not taken up any mineral investigation project in the State during the last ten years and requested GSI to take up such work for Iron Ore, Manganese, Graphite, Tungsten, Rare Earths etc to delineate the possible zones for Geological explorations in the State.</p>
46.8.03	<p>Director, DGM, Jharkhand gave presentation on the Five Year Rolling Plan for Mineral Exploration in Jharkhand and opined that Jharkhand contains about 42% of total mineral resources of the country and houses more than 30 types of minerals. The Singhbhum Thrust Zone, located in the State, is the host to several important minerals like Kyanite, Uranium, Copper, Gold, Chromite, Manganese and Iron Ore. However, exploration for various minerals like Limestone, Iron ore, Pyroxenite, Graphite, Granite etc. started only after creation of Jharkhand, he added.</p>

	<p>He further informed that the government of Jharkhand has prioritized exploration of minerals like Iron ore, Magnetite, Manganese, Chromite, Limestone, Bauxite, Graphite, Gold, Diamond and Precious and semi-precious stone.</p> <p>Appraising the house Director, DGM discussed the priorities and strategy of future mineral exploration in the State. The departmental strategy for implementing the mineral exploration programme has also been placed before the house.</p> <p>Reacting to the presentation, Special Secretary (Mines) requested other States to prepare similar five-year plan. He assured the States that MoM will extend all possible help and the mineral sector has to be developed in a coordinated way.</p> <p style="text-align: right;">[Action: DGMs of Rest of the States]</p>
46.9.00	PRESENTATION BY HEADS OF MISSION
46.9.01	The Heads of the Missions, HODs of Regions and Conveners of CGPB committees made presentation on the work being done in the respective sectors.
<i>Mission I</i>	<i>Baseline Geoscience Data Generation</i>
46.9.02	Deputy Director General, ER, GSI and Head of Mission-I gave a detailed account of the activities on Baseline Geoscience data generation.
46.9.03	<p>The Joint Secretary, MoM desired to know about the recent trends of activity in off shore studies. The Head Mission-I stated that cruises were undertaken with the objective to study the geomorphological configuration of upper Bengal fans, possible changes in seabed bathymetry and mapping of seabed off Ganga delta. In response the Joint Secretary mentioned that IBM may take up with GSI the issues pertaining to acquiring of Marine data and training modalities. Reacting to the suggestion Head of Mission-I stated that the matter will be discussed with IBM and the methodologies will be finalized. The representative of IBM informed that the areas of discussion with GSI have already been determined. IBM will visit Kolkata to discuss about the modalities of training programme. The Joint Secretary, MoM emphasized that IBM should finalise a time frame and furnish their requirements to GSI for the needful.</p> <p style="text-align: right;">[Action: GSI/ IBM]</p>
46.9.04	<p>Director General, GSI informed that the States can send their options and requisition for marine surveys indicating the areas of their interest and send the proposal to Head of Mission-I.</p> <p style="text-align: right;">[Action: Concerned DGMs]</p>
46.9.05	The Director (Technical), MoM enquired whether training on Hyperspectral mapping for GSI officers has been completed. Deputy Director General and HOD, RSAS informed that the training is scheduled in the month of April 2010. However, four officers attended workshop sponsored by DST in two

	separate courses organized by IIT, Bombay and Bharati Dasan University.
46.9.06	<p>Representative of DGM, Maharashtra informed that they are interested to take part in marine cruises. Commenting on the proposal, Member Secretary advised DGM, Maharashtra to contact the Mission head for follow up. He further stated that general information can be collected from Mission Head and if any specific information is required, it may be obtained from Regional Head. He further clarified that if DGM officers want to know the basic techniques of marine survey, they may be included in any of the cruises. During the Field Season 2010-2011, GSI will be able to accommodate them in marine survey pertaining to Maharashtra domain.</p> <p>[Action: DGM, Maharashtra]</p>
Mission II	Natural Resource Assessment
46.9.07	Deputy Director General, CR, GSI and Head of Mission-II gave a detailed presentation of the activities of Mission including resource position of different mineral commodities and important investigations being undertaken.
46.9.08	<p>Director General, GSI requested the States to furnish relevant data in order to enrich the Mission-II database. He specifically mentioned that the State of Rajasthan can furnish data to update the Mission data base.</p> <p>[Action: All State DGMs]</p>
46.9.09	<p>Representative of DGM, Andhra Pradesh mentioned that priorities on assessment of industrial minerals have not been given in the Mission. Reacting to the mention Head, Mission-II stated that it comes under minor minerals; however one investigation has been taken up in Andhra Pradesh. He advised the DGM to come up with specific proposal for consideration by GSI during programme formulation. Joint Secretary, MoM advised that specific request may be made in the next SGPB meeting. Summarizing the issue, Member Secretary pointed out GSI's work in blanket type of deposits is centered on reassessing the potentiality. He mentioned that for assessment of concealed deposits, generation of base line data through geochemical survey, ground geophysical mapping and hyperspectral mapping have been initiated. Director (P and M), GSI added that out of 74 mineral investigation items undertaken by GSI in the non energy sector, 12 items are on assessment of industrial minerals. Member Secretary opined that as and when manpower position improves, GSI will definitely undertake more programmes in mineral exploration.</p>
Mission III	Geoinformatics
46.9.10	<p>Deputy Director General, Mission-III and his team made an elaborate live presentation of the GSI Portal and Geoinformation management being followed in GSI. The basic aim of the Mission is to develop a geoscientific information delivery system that can access all kinds of data and can present to the user, he opined.</p> <p>The broad activity domains of the Mission was pointed out and indicated</p>

	<p>that an important goal of the Mission is to create a highly interconnected earth science 4D information system populated with high quality, easily available data, as well as a robust set of tools for analysis, visualization, and modelling to reveal new geoscientific relationships in space and time and to utilize information resources effectively by creating a comprehensive information environment that can enhance the discovery and extraction of geoinformation; ensure delivery of accurate, up to date and comprehensive products and services and provide crucial support for the overall missions of the organization.</p> <p>As regards IT infrastructure and Connectivity it was informed that the portal would be made available for Mission Geoinformatics as well for regular GSI work at all offices through outsourcing monitored by an in-house team.</p> <p>It was pointed out that presently the Portal serves only as the GSI Enterprise and intranet portal and hosts GSI Maps and Publications only but in the Phase-III of the portal the aim will be to develop geoscientific data standards and management policies, integrate multi-thematic, multi-dimensional data, establish protocols for functioning as a repository of geoscientific data and synergise between geoscientific data collected by all stakeholders.</p>
Mission IV	<i>Fundamental and Multidisciplinary Geosciences</i>
46.9.11	Deputy Director General and Head of Mission IV gave a detailed account of the Fundamental part of Mission IV. The area of research in earth science has been grouped under twelve domains out of which eight are in basic research and four are in applied research. He pointed out the basic elements and vision of each domain.
46.9.12	<p>Representative of DGM, Andhra Pradesh requested GSI to look into the issues related to land subsidence due to oil and gas exploration; emission of gas from irrigation boreholes in Anantapur district within Cuddapah basin and mild tremors being experienced in different parts of Andhra Pradesh and include them for necessary follow up within the ambit of mission activities.</p> <p>Reacting to the proposal Representative of Director General, Hydrocarbons suggested that the matter may be taken up with Basin Manager, KG basin, ONGC. He also mentioned that in a recently held workshop organized by ONGC on hydrocarbon exploitation in KG basin, no major land subsidence has been reported.</p> <p>[Action: DGM, A.P. / Basin Manager, KG basin, ONGC]</p> <p>Member Secretary stated that land subsidence might occur due to several reasons like excess withdrawal of water, mining operation without adequate support system and gas emanation. He advised that the data may be</p>

	<p>collected and on specific request, the situation can be assessed by GSI and the data can be consulted in a collective way in collaboration with IBM to derive the possible cause of subsidence.</p> <p>[Action: DGM, A.P. / GSI/IBM]</p>
46.9.13	The Multidisciplinary part of Mission IV has been presented by DDG, NR, GSI. He pointed out the sub-themes and approach for of work for the sub-themes including capacity building and fund flow mechanism.
46.9.14	<p>Representative of DGM, Kerala drew the attention of the house on frequent tremors being felt in many parts of Kerala. He requested that it should be studied to remove the fear of the people.</p> <p>Reacting to the proposal Member Secretary pointed out that there are several instances of such tremors in different parts of the country. He informed that GSI undertakes such studies on a case-to-case basis. He made a request to contact the concerned Regional head or the Operational office of GSI in the event of such incident and GSI will definitely consider undertaking the study.</p> <p>Director (Technical), MoM desired to know whether any glaciological studies have been undertaken in Arunachal Pradesh. Replying to the query, DDG, NR stated that in the absence of any specific request from DGM, Arunachal Pradesh as well as for manpower constraint GSI has not undertaken any glaciological studies in Arunachal Pradesh. He however pointed out that GSI has plans to expand its activity in Arunachal Pradesh in near future.</p>
46.9.15	Representative of DGM, Jharkhand stated that burning of coal in Jharia is creating environmental problems. He enquired whether a study on climate change over Jharia can be taken up. Member Secretary opined that these are micro issues related to burning of coal.
46.9.16	Joint Secretary, MoM desired to know whether any request has been sent from government of Madhya Pradesh to undertake study on minor tremors along the course of Narmada river. Representative of DGM, Madhya Pradesh informed that no such request has been sent to GSI so far. Commenting on the issue, Deputy Director General (Geophysics), GSI mentioned of the tremors and its study by GSI from Khandwa area; gradually the intensity of tremor got reduced and no major tremor is felt now.
46.9.17	Member Secretary mentioned that Mission-IV activities are very wide addressing both societal and general issues. To address problems of such a big domain a strong and sophisticated laboratory backup is essential. GSI has some state-of-the-art instrument and is in the process of procuring others to cater to the demands. A cooperative system of management of the very sophisticated laboratory instruments is required and the State governments can also avail the facility. Regarding landslide studies, Member Secretary pointed out that during the monsoon period incidences of nearly four hundred landslides are recorded every year and GSI cannot

	<p>take up all landslide studies. He requested the State DGMs to come forward and make FIR of the landslides. He offered that GSI can impart training to the officers of DGM for preliminary studies and basic data collection. He impressed upon the wide usability of the database by making it more meaningful for all the agencies.</p> <p>Director General, GSI stated that the State government should get involved in the study. He requested the State departments to furnish feedbacks on their requirements.</p> <p style="text-align: right;">[Action: Concerned DGMs]</p>
Mission V	Training and Capacity Building
46.9.18	<p>Deputy Director General, TI, GSI and Head of Mission-V gave an account of activities on capacity building and training. He pointed out that 6 Regional Training Institutes and 8 Field Training Centers are functioning where even International training courses are conducted. He further pointed out 19 courses are exclusively designed for the State DGM's and other national organizations are also taking training in the GSI Training Institute. Regarding GSITI becoming a degree-awarding institute, he informed the house that the process is on with AICTE and Osmania University and four courses have been designed and communicated for acceptance. As regards the faculty of the Institute he requested all concerned to enroll themselves with GSITI, as GSITI desires to have the best faculty in the country in the field of geoscience. He invited suggestions and specific proposals from all concerned agencies for formulation and improvement of the training courses and module.</p> <p style="text-align: right;">[Action: All Stakeholders]</p>
46.9.19	<p>Joint Secretary, MoM enquired about the issues pertaining to guest faculty in GSI Training Institute. She also mentioned about training of IBM officers on offshore mining. The Head Mission-V stated that adequate steps are being taken on the issue.</p>
46.9.20	<p>Representative of DGM, Jammu and Kashmir suggested that the erstwhile GSI training center of Aishmuqam may be shifted to some place in Jammu.</p> <p>Head, Mission-V stated that Field Training Centers are basically theme based and very interesting geological sections are available in Kashmir Valley. He requested to wait for some more time to decide the matter.</p>
46.9.21	<p>The representative of the Geological Society of India suggested that training courses should take into consideration the financial aspects also and the components like economic viability and feasibility may be included in the training curriculum.</p> <p style="text-align: right;">[Action: Head, Mission : V, GSI]</p>
46.9.22	<p>Representative of DGM, Andhra Pradesh desired that a training course may be conducted on preparation of mine plan. Giving her views on this issue, the Joint Secretary, MoM mentioned that this is actually a domain of IBM and they will take care of it. IBM will circulate some proforma and the States should respond to it. Representative of IBM stated that a number of</p>

	<p>courses were conducted by IBM earlier. Similar courses will be conducted in future also.</p> <p style="text-align: right;">[Action: IBM]</p>
46.9.23	<p>Director (P and M) proposed that a training course on Mining Lease Tenement System be framed by GSITI.</p> <p style="text-align: right;">[Action: Head, Mission : V, GSI]</p>
46.9.24	<p>Representative of the Space Department desired to know that if degree is awarded by GSITI would GSI absorb them automatically. Head Mission V pointed that the basic aim is to build the Geoscientific strength in the country and has nothing to do with absorbing by GSI or any other institutions.</p>
46.10.00	PRESENTATION BY HEADS OF REGIONS
46.10.01	<p>The heads of the different regions of GSI gave presentation on the various activities of the respective regions. Member Secretary requested the regional heads to restrict their presentation mainly to geoscience partnership with the state departments within the jurisdiction of the region.</p>
	<i>Western Region</i>
46.10.02	<p>Western Region of GSI has undertaken the following collaborative work with Government of Gujarat and Rajasthan</p> <ol style="list-style-type: none"> 1. Providing technical guidance for Kachchh Geochemical Mapping. 2. Geotechnical Evaluation of Water Resources Development projects in Rajasthan and Gujarat. 3. Detailed Project Report (DPR) Stage geotechnical investigation for Par-Tapi-Narmada Link Project. 4. Geotechnical evaluation of transportation and communication projects in Rajasthan. <p>In addition the following programmes have been undertaken</p> <ol style="list-style-type: none"> 1. Use of Hyperspectral Remote Sensing Data for the search of mineralised provinces/ areas in Precambrian terrain of Eastern and Northern Gujarat in collaboration with ISRO. 2. Carrying out PS logging in Baruch area in connection with microzonation work in collaboration with Seismotectonic Institute, Ahmedabad.
46.10.03	<p>As regards supply of reports it was mention that Pre 1990 reports were supplied to the States departments as a regular practice. Reports pertaining to 1990 to 2004 are being uploaded on demand and from 2004 onwards all reports are uploaded in the portal. He further pointed out that 14 reports have been supplied to CGM, Gujarat.</p>
46.10.04	<p>SGPB meeting of Rajasthan was attended by GSI. DGM requested GSI to</p>

	<p>take up exploration in Agucha - Javli- Morda area and to provide details of earlier work. As regards Geochemical Mapping, DGM is willing to work with GSI. Relevant MoU is under finalization.</p> <p>[Action: WR, GSI / DGM, Rajasthan]</p>
46.10.05	<p>Samples of DMG, Rajasthan from Javli area were analysed and the results were conveyed. CGM Gujarat submitted 400 samples for analyses by XRF.</p>
46.10.06	<p>Member Secretary opined that the requests made by Rajasthan and Gujarat States have been accommodated. He requested the State departments to increase their capacity for sample analysis. Representative of Gujarat requested for incorporating programmes on lime mud and manganese. Member Secretary pointed out that GSI will accept the proposal as and when the manpower situation improves. Director (P and M) informed the house that Rajasthan state has made a request for incorporating programme on potash and lignite. Member Secretary requested to interact with the GSI office in the state to finalise and send specific proposal for consideration.</p> <p>[Action: WR, GSI / DGM, Rajasthan & Gujarat]</p>
	<p><i>Northern Region</i></p>
46.10.07	<p>Northern Region has undertaken programmes on mineral investigations, STM, NGCM, GPM, Glaciological studies, Land slide zonation, Seismic microzonation and theme oriented research items.</p>
46.10.08	<p>In the State of Jammu and Kashmir two items have been undertaken in collaboration with the State government. During the SGPB meeting DGM, Jammu and Kashmir requested GSI to undertake programmes in the field of geotechnical and landslide studies. Regarding study of placer gold GSI is ready to formulate a programme if specific site of study is selected by DGM. In addition GSI has signed an MoU with Indian Railway for the geotechnical investigation of Katra-Qazigund railway line in the state of Jammu and Kashmir.</p>
46.10.09	<p>In the State of Himachal Pradesh, GSI has undertaken items on Limestone/dolomite investigation, in Sirmaur; search for glass sand in Shimla and Kulu and Environmental Impact Analysis studies of river bed mining in Beas and Pabar rivers in collaboration with DGM, Himachal Pradesh. In addition two MoUs have been signed for undertaking work for Bilaspur railway line and Renuka project and Kol Dam with NTPC. GSI is regularly updating the landslide locations in the State and 350 landslides locations have been updated. Saketi fossil park – a tourist spot in Himachal Pradesh is maintained by GSI where a museum is being established.</p>
46.10.10	<p>In the State of Punjab Post construction investigation is being carried out in Ranjit Sagar and Thein dam. The work on Seismic microzonation of Jalandhar town has been taken up. During the SGPB, DGM, Punjab requested GSI to take up studies on concentration of nitrate and fluoride in shallow and deeper aquifers in southern part of Punjab and concentration of uranium in tube well waters in Bhatinda district. HOD, NR requested DGM Punjab to submit concrete proposal for consideration depending upon the manpower position. He however pointed out that for Uranium analysis</p>

	assistance has to be taken from Atomic Mineral Division. [Action: DGM, Punjab/GSI / AMD]
46.10.11	On the basis of encouraging NGCM results one item of basemetal has been taken up in Faizabad-ki-dhani area in Haryana. During SGPB meeting DGM Haryana has requested GSI to take up Gypsum investigation in Hissar and Bhiwani district and the item is proposed to be taken up during the Field Season 2010-11. [Action: NR, GSI]
46.10.12	In Uttar Pradesh State, GSI has undertaken study of developments of ground fissures in alluvial plain adjoining to Bundelkand area and Nature and causes of arsenic accumulation in fluvial sediments and its concentration in groundwater in Behraich district. The drilling component of the work is complete and the samples are being analysed for arsenic concentration. A document on the work will be prepared soon. In addition GSI rendered geological advices in geotechnical evaluation of water resource development and signed MOU for carrying out geotechnical evaluation with NTPC for Meja Thermal Power Plant.
46.10.13	In Uttarakhand State GSI has signed MOU with IL&FS, SJVNL for geotechnical evaluation of water resource projects for preparation of PPR and DPR and detail studies of Varnavat Parvat and Surbhee landslides in Uttarakhand Himalaya.
46.10.14	In his concluding remark, HOD NR requested all the State to attend the meeting of CGPB IX and urged them to actively participate with the activities of GSI. [Action: DGMs / Members of Com. IX]
46.10.15	Director (P and M), GSI desired to know the status of the two collaborative projects in Jammu and Kashmir. Representative of DGM, Jammu and Kashmir requested GSI to send a formal request for deploying their manpower for the two collaborative projects. [Action: NR, GSI / DGM, J&K]
	<i>North Eastern Region</i>
46.10.16	GSI, NER envisages wide spectrum of geoscientific partnership through periodic interaction with state DGM's through CGPB, SGPB, data sharing etc. Proposal was sent to DGM, Manipur for joint field traverses in the ophiolite belt of Manipur. Joint traverses are planned in Ukhrul to assess PGE and basemetal mineralisation. Meeting was conducted with DGM, Assam for collaborative projects.
46.10.17	Regarding data sharing, as per the request of DGM Assam, Atlas on dimensional stones has been provided to them.
46.10.18	Regarding technical assistance GSI made field visit with Officers of DGM Assam, for providing orientation in dimension stone study. GSI, NER will also provide technical guidance to the officers of DGM, Assam for the investigation of Iron ore deposit at Samchampi area in Karbi Anglong district, Assam.
46.10.19	As regards geoscientific studies on manpower sharing basis GSI will take up detailed glaciological studies of Tamze glacier in Sikkim and detailed

	exploration of Dikshu Lingdok Cu-Zn deposit at the request of DGM, Sikkim during 2009 - 10.
46.10.20	GSI, NER has taken up work to provide expertise on macro scale landslide hazard zonation of Shillong Town and geo-environmental appraisal in areas around Bodhjungle, West Tripura District at the request of State Government.
46.10.21	A number of capsule and customized courses have conducted for capacity building of DGM's of NER through RTI.
46.10.22	<p>Representative of DGM Nagaland requested GSI for undertaking PGE studies and landslide study in Kohima. He further requested that GSI may acquire land and construct office building at Dimapur for covering Nagaland – Manipur area.</p> <p>Reacting to the proposal, HOD, NER informed that GSI has already undertaken studies on Jubza slide. DGM, Nagaland was requested to furnish specific project proposals.</p> <p style="text-align: right;">[Action: DGM, Nagaland]</p> <p>Member Secretary informed that GSI has carried out the ophiolite belt mapping and the mapping of the belt of Schuppen from Dimapur office. Gradual depletion of manpower as well as change in the ground condition led GSI to withdraw operation temporarily but GSI is carrying out engineering geology projects as well as landslide hazard studies in the State form NER headquarter, Shillong. He requested that DGM representative should attend the State level meetings to voice their concern. Member Secretary further offered that DGM personnel may be trained in GSITI if they so desire.</p> <p>HOD, NER requested DGM, Nagaland to have a bilateral talk with GSI for any specific work they require. He assured that the work will be given priority even by diverting human resource, if required.</p> <p style="text-align: right;">[Action: DGM, Nagaland]</p>
46.10.23	<p>Representative of Manipur requested GSI to analyse samples of chromite particularly for PGE content free of cost. He further pointed out that a large number of concession applications are pending with them which they cannot respond without knowing the quality and content of PGE in them.</p> <p>Representative of IBM opined that if any entrepreneur comes for PL it may be granted because the report will indicate the quality of the sample.</p> <p>Reacting to the proposal representative of DGM, Manipur informed that they are not worried about PL but people are coming directly with mining application which they cannot recommend in the absence of proper analyses. He further pointed out that they have the instrumental facility but do not have the expertise and requested GSI to train their people in analysis</p>

	<p>so that they can mount their own project.</p> <p>Representative of IBM informed that they are regularly analyzing chromite samples from Manipur. DGM's samples can also be analysed. He further pointed out they have conducted a training for officials of North-eastern region at Nagpur and even officials from Manipur participated in the training. However if DGM Manipur desires to have any specific training they may indicate so and the training can be arranged.</p> <p>[Action: DGM, Manipur / IBM]</p> <p>In response to the query made by Joint Secretary regarding the type of work being carried out by MECL at Nagaland, representative of MECL pointed out that MECL have undertaken work on collaborative mode with DGM Nagaland on Nimi limestone and the samples are being analysed at the MECL chemical laboratory at Nagpur. The report will be finalized jointly.</p> <p>Director (Technical), MoM desired to know whether the GSI laboratories at NER are equipped to undertake petological, palaeontological and other analyses.</p> <p>Reacting to the quarry member Secretary pointed out that chemical laboratory of GSI, NER are equipped for analysis for most of the elements, however for specific elements like PGE the samples are diverted to other laboratory of GSI for getting the analysis done.</p>
	<i>Eastern Region</i>
46.10.24	<p>In Bihar, GSI is undertaking programmes on STM in Munger-Rajgir Group of rocks around Gaya-Rajgir area; Geochemical mapping in parts of Jamui district in parts of toposheet numbers 72L/11 and 15; Investigation for gold and silver in Mungher – Rajgir area, Nalanda district; Study of contamination of ground water by fluorides and Geotechnical investigations for river valley projects. Investigation for gold in Sono area is under consideration, DGM was requested to provide more details for consideration by GSI.</p> <p>[Action: DGM, Bihar]</p>
46.10.25	<p>In Jharkhand, GSI is working on Geochemical mapping in parts of Giridih district; Geochemical mapping in parts of East and West Singhbhum districts; Investigation for Gold in Sindauri East block, Ranchi district; Investigation for Gold-PGE-Nickel in Tilai-Tanar area, East and West Singhbhum districts and Geotechnical investigations for river valley projects. In addition joint field traverses have been planned to take up a collaborative programme on iron ore investigations.</p>
46.10.26	<p>In the State of Orissa GSI is working on STM in the Eastern Ghat Mobile Belt in parts of Jajpur and Dhenkanal districts; STM in Jaspipur-Karanjia-Thakurmunda area in Mayurbunj districts with special reference to PGE mineralization; STM for reappraisal of Iron Ore Belt of Horse shoe basin in parts of Sundargarh and Khendujar districts; Iron ore investigation in Ghoraburani area, Sundargarh district; Manganese investigation in</p>

	<p>Damurda North and Bolani South blocks in Bonai, Khendujar districts; Manganese investigation in Banigarh area in Bonai, Khendujar districts; Chromite investigation in Maulabhanj and Pangeria area, Dhenkanal district; two items on GCM in parts of Khendujar, Dhenkanal and Jajpur districts; Ground evaluation of aerogeophysical and remote sensing dataset in parts of Jharsuguda, Sambalpur, Bolangir and Nawapara districts; Study of submarine valley in upper continental slope of Chilka mouth; Preliminary appraisal of Subarnarekha river outflow for port development; Evaluation of coastal changes processes and shore line changes in Mahanadi Delta; and Geotechnical investigations for river valley projects. In addition MOUs have been signed between GSI and Orissa Mining corporation to take up iron ore & PGE investigations on sponsorship basis. GSI may also take up reassessment of iron ore in Malagtolli-F block on participatory mode with GSI providing technical inputs.</p> <p>[Action: DGM, Orissa / GSI]</p>
46.10.27	<p>In the state of West Bengal GSI is undertaking programmes on STM in parts of Bankura- Bardhaman districts in respect of recent seismic activities and neo-tectonic movements along faults; GCM of Chhotanagpur Gneissic Complex in parts of Purulia district; Investigation for base metals in Tamakun area, Purulia district; Investigation for Apatite in Bheladih and Chowdari blocks, Purulia district; Investigation for Talc-Steatite in Gok-Karmi area of Darjeeling district; Investigation for contamination of fluoride in ground water in parts of Malda district; Regional gravity-magnetic mapping over north and south Purulia shear zone, Purulia district and Seabed mapping of Ganga prodelta region. In addition study of laterites to understand the paleo-climatic changes has been undertaken. He pointed out that a number of road corridors are being constructed and requested the Government of West Bengal to have a discussion with GSI before aligning the road to avoid hazards on the road.</p> <p>[Action: DGM. West Bengal]</p>
46.10.28	<p>As regards data sharing, Mineral Belt Map of Iron ore of Keonjhar-Sundergarh-Noamundi Belt; Geological Maps of 29 toposheets; Report on Bauxite investigation near Lohardaga area; Report on Bauxite investigation of Sukruhatu-Koenatoli Plateau around Koida, Gumla, Ranchi district; Report on Investigation on Amptipani Bauxite deposit, Ranchi District; Final Report on exploration of Iron ore deposits in parts of Ghatkuri Block of West Singhbhum district, Jharkhand have been provided to DGM, Jharkhand and Mineral Belt Map of Bauxite of Netarhat- Lohardaga belt to Jharkhand Space Application Centre.</p>
46.10.29	<p>RTI, ER has conducted a Course on Coal Bed Methane (CBM); Basic Course in geological Mapping for CMPDI; Course on Geological Mapping, Course on systematic approach in Mineral Exploration and Course in Geophysical Data Interpretation and Integration for officers of DGMs of West Bengal, Orissa, Bihar and Jharkhand States from the Regional Training Institute, Kolkata and Field Training Center Kujju. He requested all the State governments to come forward with proposal of specific</p>

	<p>training and assured that GSI will extend all possible help for their capacity building.</p> <p style="text-align: right;">[Action: Concerned DGMs]</p> <p>Member Secretary pointed out that finalisation of GSI's Field Season Programme starts from the month of June-July. States should come forward immediately with their proposal for incorporation during the Field Season 2010 – 11.</p> <p style="text-align: right;">[Action: All State DGMs]</p>
	Central Region
46.10.30	<p>GSI, Central Region has undertaken geoscientific collaboration – both National and International. In the International arena GSI is undertaking studies on of Late Cretaceous Snake Fossil with University of Michigan Museum of Paleontology, USA under National Geographic Grant. He was happy to announce that Discovery Channel is filming for Dinosaur Extinction and Deccan Volcanism taking assistance from GSI. In the Nation level collaboration is being undertaken with Birbal Sahni Institute of Palaeobotany, Lucknow; Benaras Hindu University, Varanasi; RTM, Nagpur University and IIT –Roorkee on projects related to Biodiversity, Environment and Palaeoclimatic studies.</p>
46.10.31	<p>On the issue of geoscientific partnership with States he pointed out that in the State of Madhya Pradesh GSI is working on Jhabhua Phosphorite; Special Thematic Mapping and Geochemical Mapping in Jabalpur and on Parseoni Manganese in Maharashtra. In addition GSI is working on Iron ore at Aridongri for CMDC in Chhattisgarh; Ajanta and Ellora World Heritage Site for Archeological Survey of India and Dhamanganga-Pinjal River Linking and Medical Geology for Fluorine contamination of Groundwater for GSDA on a sponsorship basis. The report on the work sponsored by Archeological Survey of India is in the final stage and will be submitted very soon.</p>
46.10.32	<p>GSI's ongoing important mineral investigation in the Region includes Phosphorite of Durg District, Chhattisgarh and PGE in Chandrapur District, Maharashtra and important future priority areas include low-grade iron and manganese ores; west coast bauxites and PGE investigations. He requested the DGM's to come forward for collaborative work in GSI's future programmes. He opined that GSI needs to revisit the geothermal fields particularly along the west coast.</p>
46.10.33	<p>GSI has developed a core repository in Central Region where more than 20,000 meters of cores are stored. A computerized database has been developed for all the cores preserved there pertaining to 75 mineral investigation projects. He invited all the sister concerns who are working in Central Region to preserve their core in the repository if they so desire.</p> <p>Reacting to the proposal, representative of MECL pointed out that they will make a formal request to GSI for preserving their core which are falling beyond C category.</p>

	<p>Member Secretary requested MECL to have a dialogue with DDG, CR, GSI about the format in which the cores are being preserved. He further opined that MECL cores are to be preserved in that fashion so that future workers can use it as reference.</p> <p style="text-align: right;">[Action: MECL]</p>
46.10.34	<p>Regional Training Institute, Nagpur has started and will conduct two training programmes on Geophysical Data Interpretation and Climate change and Palaeoclimate. The Institute also conducts short-term courses for officers of DGM and other Government organizations on Mineral Exploration, Deccan Trap mapping, Landslide hazard zonation, Precious metal analysis using state of the art techniques and Drilling Technology. He informed the house that Nagpur University is interested to have a summer course for their students in GIS.</p>
	<p><i>Southern Region</i></p>
46.10.35	<p>In the State of Andhra Pradesh GSI is undertaking studies on Limestone investigation in Nandikotkur, Kurnool District; Fe-ore investigation in Bayyaram, Khammam District. In the field of Geotechnical Investigation GSI is working on Irrigation Projects with Tunnels under Chief Minister's "Jalayagnam" Project (Pranhita-Chevella (15 tunnels along 200 km); Galeru-Nagari; Polavaram-Indira sagar (near Rajahmundry) and Handri-Niva). In addition studies on 40 Minor and Medium Irrigation Projects for water resource augmentation; Power Projects for Andhra Pradesh Power Generation Corporation; Jurala (on Krishna River) and Nagarjuna Sagar Tail Part are also being undertaken. On the basis of the request made by Nuclear Power Corporation, a MoU is being finalized to take up Kowada site work in Srikakulam District.</p>
46.10.36	<p>In the State of Tamil Nadu GSI is undertaking work on PGE investigations in Mettupalayam and Sittampundi; Limestone investigation at Senkurichi, Cuddalore District; Geophysical mapping for Neyveli Lignite Corporation and Geotechnical Investigation in Mullai Periyar dam project.</p>
46.10.37	<p>In the State of Kerala work on Construction grade sand investigation and Construction sand off Alapuzha coast is being undertaken by GSI.</p>
46.10.38	<p>In the State of Karnataka Fe-ore investigation in Taranagar and Rajpura Block in Bellary District and Placer Deposit at Honnavara area, North Kanara District have been undertaken by GSI. In addition Photogeology and Remote Sensing Work at Kudigi area, Bijapur District has been undertaken by GSI for Karnataka Power Corporation Limited.</p>
46.10.39	<p>In the State of Goa GSI has undertaken construction of 3 Dinosaur model in Margao Palaeontological Park.</p>
46.10.40	<p>During the SGPB Meeting DGM Karnataka requested GSI for undertaking Limestone investigation in Bagalkot District and PGE investigation in Hassan District which are being considered by GSI.</p> <p style="text-align: right;">[Action: GSI]</p>
46.10.41	<p>Under Mission I, 5 Specialized Thematic Mapping, 5 Geochemical mapping and 3 Geophysical Mapping items are taken up by GSI; Under Mission II, 23 Mineral investigation and Under Mission IV one items of</p>

	Seismic Microzonation of Vijayawada city are taken up.
46.10.42	The analytical data received so far was presented before the house. The data indicates that Pt values range from 291-1833 ppb and Pd values range from 101-1858 ppb in Tasampaliyam. At Ramagiri schist belt PGE values ranges from 300 ppb – 8196 ppb(Pt + Pd).
46.10.43	DDG, SR reported that at Ajjanahalli, Gold: Mineralised BIF zone have been intersected at depth from 70.3 - 79.0 m.
46.10.44	Representative of Geological Society of India suggested having a joint collaborative programme between Geological Society of India and GSI on field training for PGE mineral studies in the Nuggihalli Schist Belt. DDG, SR, requested to send a concrete proposal for consideration by GSI. [Action: Geological Society of India]
46.10.45	Representative of Andhra Pradesh requested GSI to undertake a joint collaborative work on the low-grade iron ore deposits in the State. He informed that DGM Andhra Pradesh will raise the issue in the next SGPB meeting to take up work in Kurnool, Cuddapah and Karimnagar districts and requested GSI to consider proposal. He further requested to take work on the cluster of mines for the benefit of the small mine owners. DDG, SR, pointed out that GSI undertakes iron ore studies in selected areas. The bedded deposits are kept for private entrepreneurs to work. Regarding working in the small cluster deposit he informed the house that he has taken note of the point and if any area is found to have potential GSI will definitely consider. Director General, GSI suggested DGM, Andhra Pradesh to discuss the issue and finalize a suitable programme. [Action: DGM, A.P. / SR, GSI]
46.10.46	Representative of DGM Tamil Nadu informed the house that during the last SGPB meeting GSI has suggested for joint work on the reconnaissance survey inventory work on landslide in Nilgiri area and landslide studies in Kodaikanal area and pointed out that the proposals are under consideration by the government and after getting the clearance the work will be initiated. [Action: DGM, TN]
46.10.47	Representative of Geological Society of India made a suggestion regarding PGE study in Sittampundi. He pointed out that eclogite has been found in Sittampundi and in some parts of northeast of India. He opined that together with PGE work should be done on G8 and G9 garnets, which are the best indicator mineral for diamond exploration. DDG, NER desired to know the area of northeastern region from where eclogite have been reported. Representative of Geological Society of India informed that he would pass on the data to GSI very soon. [Action: Geological Society of India]
46.10.48	Representative of Kerala desired to know if someone wants to extract construction grade offshore sand to whom the application should be submitted. DDG (Marine Wing), GSI, pointed out that the Ministry of

	<p>Mines has decided that IBM will be the authority for granting exploration license.</p> <p>Representative of IBM mentioned that IBM is the authority for granting license and already notification has been issued in this regard.</p>
46.11.00	PRESENTATION BY CONVENERs OF CGPB COMMITTEES
46.11.01	The Conveners of the twelve CGPB committees sequentially placed the recommendations made during the second meeting of each committee held between November, 2009 and January, 2010.
Committee I	<i>Ferrous Minerals</i>
46.11.02	<p>(1) All states should conduct their respective SGPB meetings in time and intimate their outcomes, so that these are discussed in the subsequent CGPB meetings (for firming up the recommendations). [Action: All State DGMs]</p> <p>(2) All States and the invited organizations should not only show their presence in the meetings but also make worthy presentations.</p> <p>(3) All DGMs should provide details of lease hold areas (RP and ML etc.) to GSI and IBM. [Action: All State DGMs]</p> <p>(4) All State DGMs to send minutes of the SGPB meetings at the earliest along with recommendations.</p> <p>(5) All State DGMs to notify the area being investigated by GSI and that given on lease to private parties.</p> <p>(6) Emphasized that all State government departments should formulate their annual and 5-year rolling plans for regional, detailed and promotional exploration on a national scale so that these are thoroughly discussed in Committee meetings and recommendations made. State governments and Private. agencies should come out with data sharing/status map and coordinates.</p> <p>(7) The area of Operation of this Committee to be restricted to iron, manganese and chromite and the word <i>etc.</i> should be deleted.</p> <p>(8) Members to request IBM for providing training on UNFC classification and mineral exploration programme.</p> <p>(9) Members/invitees to provide feed back on various points discussed in the meeting on preparation of base document.</p> <p>(10) DGM to avail the training programme launched by GSITI through</p>

	their respective RTC for training their geoscientist.
46.11.03	Special Secretary, MoM pointed out that the base document should include specific projects and general Strategy. [Action: All Conveners, CGPB Committees]
46.11.04	The convener mentioned about the recommendations made on preparation of base document which includes specific projects and general strategy. The recommendation in this regard include : Redefining the exploration strategy as per the present day needs. The valuable database of IBM will be utilized for the base document and other group member should also provide available data, so that adequate data backup can be generated for discussion in the third meeting of the Committee. To prioritise and enhance R & D programmes in respect of exploration techniques, modernization of field sampling equipments of beneficiation. Environment friendly exploration/exploitation and transport of ferrous group of minerals. Active cooperation of MoEF in optimal exploration of ferrous group of minerals. Strengthening of manpower of Central and State organizations as well as other member institutions by capacity building measures.
46.11.05	The decisions adopted in the Committee meeting include : a) Notification of IBM in respect of modified threshold values. b) Exploration strategies and reassessment of reserves according to the market demand of the commodities. c) Scientific mining as per MMDR act.
46.11.06	Commenting on the status of the base document, the Convener stated that during the third meeting a draft document will be tabled before the Committee. The members will review and finalize the base document incorporating the recommendations and modifications given by the Committee members.
Committee II	Precious Metals and Minerals
46.11.07	At the outset Director (P and M), CHQ opined that Committee-V is functioning very effectively and it will be better if other Committees also function in the same way through self-regulatory mode.
46.11.08	Commenting on this issue, Special Secretary mentioned that the objective of the newly reconstituted committees has two components, viz., (i) the operation part and (ii) the base document part. Elaborating on the base document part he mentioned that it would be a part of the large document

	which would provide knowledge on resource side and ultimately culminate into a sectorial metal/ mineral policy document. He emphasized on active interaction between the GSI and State departments for optimization in resource utilization.
46.11.09	Special Secretary mentioned that there exists a registered society (C-Tempo) which imparts techno economic advices. He also added that the potential persons who have retired and have knowledge can be enrolled a consultants.
46.11.10	Additional Director General, PSS enquired whether it is possible to create fund for the Committees through MoM for sponsoring the mineral investigation programmes in tune with the process accomplished by Ministry of Coal for Committee-V. It only sponsors the agencies for exploration of coal. In case of minerals, other than coal, the MoM may create a fund which could be pooled from central grant as well as from the royalty of the States. The funds could be distributed through the arms of CGPB for exploration programmes and for enhancing better participation.
46.11.11	Adviser, TPPC mentioned that in case of coal the entire extraction is done by government machinery and for other minerals private players are also there; therefore, provision of central funding may not be possible. The Special Secretary, MoM added that it is difficult to equate coal with other minerals.
46.11.12	Commenting on the proposal, representative of DGM, Andhra Pradesh mentioned that the Andhra Pradesh Mineral development corporation has created a fund that is used in exploration work by DGM. Arrangements may be made in a way so that the state PSUs get the benefit of tax rebate. The PSUs will also get back the return in the form of exploration reports.
46.11.13	Commenting on the rolling plan perspective of States, Director (P and M), GSI appraised the house that only Jharkhand, Andhra Pradesh and Orissa has presented their data. He requested other States to come forward and present their data and plan as these documents help GSI to know the prognosticated visions of the state departments and in formulating GSI's own programmes. [Action: All concerned State]
46.11.14	Commenting on the issue Special Secretary, MoM added that it should be both ways between the GSI and the States and it would benefit the exploration programmes as a whole.
46.11.15	Representative of DGM, Gujarat stated that a plan has been adopted by the State to assign all mineral exploration programs to PSUs and 80% of shelf price will be available for exploration work.
46.11.16	Member Secretary of Committee-II intimated that three and five year rolling plans and RP, PL data from the DGMs has not yet been received. He mentioned that during the first Committee meeting data pertaining to high Mg, Cr, Ni in basalts in Deccan traps were asked from the members which has not yet been received. He requested all HoDs, especially of WR and CR to strive to obtain the above data. [Action: GSI]

46.11.17	<p>Member Secretary appraised the house about the recommendations of the committee - :</p> <p>Expeditious approach to be taken to hyperlink the website of DGMs to GSI portal. Feed back as received depicts that DGM, Gujarat is in touch with NIC for the early accomplishment of the assignment.</p> <p>Consider possibility for imposing moratorium on exploitation of materials known to contain PGE till their contents are established.</p>
46.11.18	<p>Commenting on the issue, Special Secretary mentioned that the contents of PGE should be known. Representative of FICCI added that generally higher concentrations of these elements occur in shear zones. Since IBM has a role on the issue, Member Secretary, Committee-II requested IBM to offer opinion.</p>
46.11.19	<p>Representative from IBM opined that under the existing set up it would not be worthwhile to stop the lessee from mining the material. They can however stockpile the material separately for future use as has been done in the case of lumpy chromite or nickelifereous limonite. Director (P and M), GSI opined that though 14.7 million tonnes of PGE rich material is present in Baula Nausahi area , Orissa, the economic viability studies are yet to be conducted. Joint Secretary, MoM suggested that the committee should go deeper into the subject.</p> <p style="text-align: right;">[Action: Convener, Com. - II]</p>
46.11.20	<p>Member Secretary focused upon the preparation of status documents on:</p> <ul style="list-style-type: none"> i) Dossier on mafic/ultramafic complexes of India ii) Dossier on high Mg, Cr, Ni basalts occurrences in Deccan Traps. iii) Improvement in ore beneficiation techniques iv) Creation of database on RP and PL v) Rolling plans (3-year, 5-years and long term).

Com. III	<i>Non-Ferrous and Strategic Minerals</i>
Com. IV	<i>Industrial and Fertilizer Minerals</i>
Com. V	<i>Energy Minerals and Resources</i>
Com. VI	<i>Marine Geology and Exploration and Coastal Geoscience</i>
Com. VII	<i>Airborne Survey and Remote Sensing</i>
Com. VIII	<i>Geology and Mineral Resources of North Eastern Region (NER)</i>
Com. IX	<i>Geoscientific Investigations (Geotechnical investigations, Natural Hazards, Climate Change, Environmental Geology, Shallow subsurface Geology and subsurface Hydrology)</i>
Com. X	<i>Fundamental and Multidisciplinary Geoscience</i>
Com. XI	<i>Geoinformatics and data management.</i>
46.11.21	Due to shortage of time presentation of the recommendation of the Committees III to XI was not made on the floor of the house. Member Secretary however informed that the material is available in the booklet on Recommendation of second meeting of CGPB committee. Members were requested to go through the document and offer comments, if any.
Committee XII	<i>Geoscience for Sustainable Development</i>
46.11.22	At the outset Special Secretary commented on the sphere of activities of Committee XII, and mentioned that the sphere of activity of GSI is immense and GSI has made its presence felt in various spheres of geoscientific activities. He further pointed out that GSI is involved in geosciences as a whole and not merely embark upon extraction for minerals or metals and has the ability to collect data on various new parameters. GSI is investigating to the extent geoscientific information has relevance in national context like experimental issues related to climate, coastal geomorphology, glaciology, analysis of vectors to certain parameters linked to geoscientific appraisal.
46.11.23	Member Secretary, Committee XII outlined the plan proposals of the Committee : i) Plans to put 1: 50K geological maps in portal ii) Ability of GSI to collect immense data iii) Data amenable to immense value iv) Range of clients can increase v) A concept of a congress for the technical sector is being preferred where geoscientist can get together, exchange knowledge, information and present papers in technical fora—National Geoscience Congress. vi) State governments conceptualize their requirements. Stakeholders extract data out of GSI. GSI maps may be enhanced by adding layers of roads and other non-geological attributes and make it

	amenable for application by the user agency.
46.11.24	Member Secretary, Committee XII mentioned about MoU between GSI and CGWB. He indicated that the common areas of interest are – (a) Study of Remote Sensing data for water resource projects (b) Exploration for deep aquifers (c) Study of water chemistry in selected areas where the pollution is high and to suggest remedial measures.
46.11.25	Representative of Ministry of Land Resources requested CGWB for the hydrological map. Representative of CGWB pointed out that they collect data on groundwater covering 70-80 sites per district. District groundwater maps of the entire country are available in digital and paper formats.
46.11.26	Regarding National Geoscience Congress, the status informed include – 1. Memorandum of association developed 2. Terms of reference to be framed 3. The congress will be funded by the government, which will cater to the annual meeting and TA and DA. 4. The congress will have technical sessions for different geoscientific disciplines 5. Bring out publication and exhibition for common man. [Action: Convener, Com. - XII]
46.11.27	It was pointed out that Remote sensing through satellite data is of prime importance and a joint study between GSI and DST should be considered. A representative of DST should be present in this committee meeting for better coordination, he opined. [Action: Convener, Com. - XII]
46.11.28	Member Secretary, Committee XII made comments on the following issues – 1. On Marine geology and coastal surveys he opined that a joint study with CGWB on deep seismic aeromagnetic surveys and presence of freshwater in off shore seabed aquifers needs to be examined. 2. On Remote Sensing and aerial surveys it was mentioned that use of hyperspectral mapping of clay minerals rich in Potassium and other elements for use in agriculture on specific request in a marked area as a pilot project 3. On Multidisciplinary and fundamental science he opined that monitoring of high altitude lake especially in relation to the sustenance of the people living in those area as a part of medical geology. 4. On Geoinformatics he suggested that increase in bandwidth for connection in the Phase III of the Portal in which NIC Delhi may provide information.
46.11.29	Commenting on the geo scientific partnership between different agencies on sustainable development programme, Joint Secretary, MoM informed

	<p>that there would be partnership with land resource department and agriculture ministry. She also mentioned that the Congress on geoscience will be an important platform. It was discussed in the first meeting of committee XII. She was hopeful that National Geoscience Congress will be organized in coming months.</p> <p style="text-align: right;">[Action: Convener, Com. - XII]</p>
46.12.00	AGENDA FOR 46th MEETING OF CGPB
46.12.01	The comments of GSI on each of the new agenda items of 46th CGPB were sequentially placed before the house by the Member Secretary, CGPB for discussion.
Agenda 1	<i>Preparation of Index and Inventory of Glaciers of Sikkim in Chronological order.</i>
46.12.02	Member Secretary elaborated that an item on "Updating the inventory of glaciers in Sikkim Himalaya" has been taken up as a service item during the current field season. GSI had compiled the glacier inventory of Tista basin, Sikkim and has been published as GSI Special Publication No. 34.
46.12.03	Representative of DGM Sikkim enquired about laboratory facility for glacier studies and training to their official. He further requested GSI to deploy more manpower for glacier studies in Sikkim. Member Secretary pointed out that laboratory facility would be made available as and when required but expressed GSI's inability to deploy additional human resource. He however mentioned that their personnel could be trained at GSI training Institute as per their training calendar.
	[Action: DGM, Sikkim/GSI]
Agenda 2	<i>Geo-Physical Survey of the catchment of major lakes & wetland area of Sikkim.</i>
46.12.04	Member Secretary informed the house that GSI has conducted Geophysical Surveys in different parts of Sikkim and expressed that for the present proposal details of specific area & purpose of the study may be provided to select the appropriate survey techniques. The issue may be discussed during the next SGPB meeting, he opined.
	[Action: DGM, Sikkim /GSI]
Agenda 3	<i>Geological Sensitivity and Seismological study of area above Chungthang.</i>
46.12.05	Member Secretary pointed that GSI has already conducted seismological studies in Sikkim and landslide related studies, both zonation and site specific in different parts of Sikkim along with Landslide Hazard Zonation (LHZ) on mesoscale (1: 50,000 / 10,000) at Gangtok, Mangan, Pakyong, Namchi, Soreng and Melli. Regarding the area above Chungthang GSI has asked for the details of purpose for launching a suitable programme. Representative of DGM, Sikkim confirmed that they would be providing the necessary information.

	[Action: DGM, Sikkim]
Agenda 4	<i>Geological Geo-technical study of trouble spots along the road under project Swastik.</i>
46.12.06	In the absence of representative from Border Road Organization the agenda was not discussed. However GSI's view on the agenda is available at page 98 and 99 of the booklet on Agenda papers. Members were requested to go through and offer comments, if any, to the Member Secretary, CGPB.
Agenda 5	<i>Further detailed exploration of Dikchu Lingdok Cu-Zn deposit.</i>
46.12.07	As detailed exploration for the Dikchu basemetal prospect has been carried out by IBM and MECL, and as GSI is not associated with the Dikchu hydro-power project, Member Secretary opined that DMMG may kindly discuss the issue with IBM and MECL. Representative of MECL informed that MECL has carried out detailed investigation in the area from 1977 to 1983, the analytical data indicated 2.89% Cu and 0.8 % Zn but the strike length of the ore body is limited, sheared and not economically viable to go for further investigation.
Agenda 6	<i>Impact study of drying up of spring water due to tunneling at various Power projects sites in the State.</i>
46.12.08	It was pointed out that during excavation of tunnel, local groundwater regime gets disturbed, and in general it has been observed that water ingresses within the tunnel. As a result sometimes local springs (which are charged by groundwater) of the surrounding areas gets dried up. But after completion of tunnel excavation, including concrete lining/ grouting, etc. the local ground regime is restored. Member Secretary however opined that for specific problem site- specific studies are to be conducted by the respective project authorities.
Agenda 7	<i>To adopt scientific method of mining for Minor Minerals (sand, gravel, stone etc) as per the MMRD Act. 1957.</i>
46.12.09	The issue of exploration and exploitation of Minor Minerals being a State subject is not covered under the MMDR Act 1957. As such there is no standard guideline for minor minerals as available for the scheduled minerals. However a draft document on 'Impact and Methodology of Systematic and Scientific Mining of the Riverbed Materials' has been prepared by GSI. The said document may be used by the State Departments for scientific exploration/ exploitation of riverbed materials. A copy of the document was provided to the State Departments and also available in GSI portal.
Agenda 8	<i>Preparation of Geo-Technical map of Sikkim.</i>
46.12.10	GSI has carried out Macro scale (1:50,000) Landslide Hazard Zonation study following BIS Guidelines on GIS platform for about 1070 sq.km in parts of Sikkim. The study mostly has been confined along major communication corridors, urban agglomerations and hydro-electric Power

	Project site. However, for any site- specific developmental programme, GSI can undertake detailed study on specific request. [Action: DGM, Sikkim]
Agenda 9	<i>Geophysical Survey (Ground Induced Polarisation and Self Potential and Gravity) in the Ophiolite Suite of Nampisha, Ukhrul district, Manipur for delineation of basemetal mineralization (Part of the Survey of India Toposheet no. 83 L/10)</i>
46.12.11	Based on the discussion on the agenda item Member Secretary suggested that a collaborative programme for the work may be formulated between State Government and GSI. He proposed that laboratory facility and training could be provided to the State Geologists by GSI . [Action: DGM, Sikkim / GSI]
Agenda 10	<i>G-3 stage investigation of harzburgite and serpentinite in the ophiolite suite of Manipur.</i>
46.12.12	GSI is not undertaking any work on dimensional stone at present. Member Secretary suggested that petrographic studies are carried out by GSI on these stones but not the extraction work. He however suggested that work on dimension stone block may be leased out to private parties.
Agenda 11	<i>Lithostratigraphic mapping of Barail and Surma sediments in Tamenglong and Churachandpur districts, Manipur for locating coal deposits (Toposheet nos. 83 H/2, 3,4,5,6,7 and 8).</i>
46.12.13	GSI proposed to take up collaborative work with GMD, Manipur during the field season 2010-11 and requested GMD to have a detailed discussion with the Director, GSI located at Dimapur. [Action: GMD, Manipur / NER, GSI]
Agenda 12	<i>Free of charge of sample analysis at GSI laboratory</i>
46.12.14	During the 2 nd meeting of CGPB Committee VIII GMD Manipur requested analysis of PGE samples by GSI free of costs. It was discussed that unless detailed petro-mineralogical studies are carried out for each of the samples, no purpose will be served only through bulk analysis. Member Secretary urged the State department to get the petrographic study of these samples done and submit for PGE analysis at GSI laboratory. [Action: GMD, Manipur / NER, GSI]
Agenda 13	<i>In spite of the facts that the State of Jharkhand being a mineral rich state that possesses varieties of minerals but still no adequate geological investigation has been carried out. Therefore it is difficult to prepare compiled and integrated maps and reports. This is creating hurdles in decision-making process on investment in mineral sector by entrepreneur and hampering the industrial growth of the state. Some of the minerals like Iron Ore, Bauxite, Limestone etc. has been investigated by the GSI on small scale in early period of Nineteen sixty and seventy. On the basis of those data, state has prepared ambitious plan of detail</i>

	<i>geological exploration jointly with NMDC in certain area.</i>
46.12.15	Member Secretary pointed out that it is necessary to know the details of forest cover areas, leasehold status, exact area to be explored and details of work carried out by DMG in respect of different minerals. The DMG, Jharkhand may suggest specific proposals for collaborative programmes which can be taken up during 2010-11 field season but arrangement for forest clearance in areas has to be made by DMG, Jharkhand. [Action: DGM, Jharkhand / ER, GSI]
Agenda 14	<i>The proposal for geological exploration of Gypsum in District Bhiwani and Hisar of Haryana State could not be considered by GSI for late receipt. It was assured that it would be taken up in the field season 2010-11. Therefore, it is requested that Geological exploration for Gypsum in District Bhiwani & Hisar of Haryana may be included in the agenda for the field season 2010-11 positively please.</i>
46.12.16	DMG (Haryana) has been requested to provide list of gypsum occurrences, which will be helpful in formulating the FSP item during 2010-11. The programme will be finalized in the next SGPB meeting of Haryana. [Action: DGM, Haryana / NR, GSI]
Agenda 15	<i>The State Government is in Short of Budget provisions and has manpower problem. Hence under collaborative field programmes the field expenditure must be borne by the GSI although the DGM will attach field officers to their camps.</i>
46.12.17	During 2009-10, three Geologists of DGM, Madhya Pradesh were associated with three GSI programmes, one each in Phosphorite investigation, STM and Geochemical Mapping. GSI is providing camping facilities, wages for labourers and other logistic support to the State Geologists.
Agenda 16	<i>The DGM had suggested to Geological survey of India to explore the possibilities of new bauxite, iron ore, Manganese ore, and also limestone deposits in various districts of M.P.</i>
46.12.18	Based on the available resources, GSI has already taken up a number of investigations in Madhya Pradesh. The issue needs to be discussed in the SGPB and CGPB Committee meetings. [Action: DGM, MP]
Agenda 17	<i>As magnesium rich basaltic lava flows of Deccan trap are supposed to be one of the good hosts for PGE mineralization. Hence it is requested to locate vestiges of Ophiolitic belts in western part of M.P. for the same by GSI.</i>
46.12.19	GSI requested the States to prioritize the exploration commodities and provide details for formulate an exploration programme in future. [Action: DGM, MP / CR, GSI]

Agenda 18	<i>Investigation of PGE mineralization may be taken up by GSI in Bundelkand granite complex in Datia, Tikamgarh districts.</i>
46.12.20	The suggestions of DGM, Madhya Pradesh will be considered during the formulation of the programme for the Field Season 2010-11. [Action: DGM, MP / CR, GSI]
Agenda 19	<i>Mineral Exploration in the Sea Coast of Maharashtra</i>
46.12.21	The proposal for joint venture of DGM (Maharashtra) with GSI for the exploration of mineral resources will be favourably considered by GSI observing the necessary formalities. Member Secretary however pointed out that the details of personnel to be associated with GSI may be furnished by DGM, Maharashtra. Special Secretary mentioned that UNFC classified data are needed for the off shore exploration work. The level of authenticity of the data is required to be checked. A clear-cut distinction should exist on actually made UNFC classified data and theoretically extrapolated UNFC data. Director (Monitoring – II), GSI mentioned that field guidelines for exploration of offshore areas are needed for UNFC classification. A committee may be constituted to look into this matter. [Action : MOM / GSI]
Agenda 20	<i>Updating National Mineral Inventory</i>
46.12.22	GSI will furnish all the required information related to National Mineral Inventory as on 01.04.2010 to IBM.
Agenda 21	<i>Need for a Magnetotelluric (MT) surveys for Diamond exploration in peninsular India</i>
46.12.23	A MOU has been signed between GSI and De Beers India Private Ltd for carrying out joint MT surveys along a number of transects across different cratons of India. The work is likely to commence from April 2010.
Agenda 22	<i>MOEF Guidelines for Exploration for Coal</i>
46.12.24	The issue of forest clearance as well as number of boreholes required for detailed drilling, as per the recent guidelines by MOEF has already been discussed during 44 th and 45 th CGPB and other meetings of the Committee on Energy Minerals and Resources (Committee V of CGPB). MOM is in constant touch with MOEF on the issue. [Action: MOM]
Agenda 23	<i>Obtaining of No objection certificate from Ministry of Defence for purchasing of Open Series Maps from Survey of India for ILRIS project.</i>

46.12.25	Ministry of Coal was suggested to up the issue with Ministry of Defence. Representative of NLC informed that they have obtained the requisite permission.
Agenda 24	<i>Establishment of GSI Training Camp at Central Part of Godavari Valley Coalfield. .</i>
46.12.26	Member Secretary informed the house that GSI is creating FTCs and Kothagudam will be considered in the next phase. Special Secretary informed that training infrastructure is expanding in GSI. Field training centers can also be established at Kothagudem. He suggested that Faculty members could go to the training place to impart the said training to which both GSI and IBM agreed in principle. [Action: GSI / IBM]
Agenda 25	<i>Regional Exploration in GVCF</i>
46.12.27	GSI is planning for regional exploration for coal on the dip side of Ramagundam and Somagudem-Indaram coal belts of GVCF during XII Plan period to prove the coal seams up to 1000m depth. The generated data will help SCCL in planning the life extension of highly capital- intensive projects with modern technology as SCCL has completed detailed exploration in these coal belts up to 600m depth. [Action: GSI]
Agenda 26	<i>Samples for CBM</i>
46.12.28	This issue of SCCL has already been discussed in the 2 nd meeting of the CGPB Committee-V and it might not be possible to take up the programme due to existing committed schedule of the XI Plan period. However due consideration will be given while formulating the programme for XII Plan period. [Action: GSI]
Agenda 27	<i>GPS Data from National Network</i>
46.12.29	GSI is a member of the national GPS network and data for 2 permanent stations viz Jabalpur and Lucknow are available with GSI. For rest of the stations GSI, ER may contact Director Geodetic & Research Branch Survey of India, Hathibarkala Estate, Dehradun- 248001.
Agenda 28	<i>Issues arising from CGPB Committee Meetings</i>
46.12.30	The Conveners of all the CGPB Committees have been advised to bring out the salient issues related to effective functioning of the Committees during their presentation slots. The house in general was unanimous on the above issue and emphasized on active participation by all the State and other stakeholders including the Central agencies as well as MOM.

	[Action: All stakeholders]
Agenda 29	<i>Airborne Survey for mineral prospects in Karbi Anglong district of Assam.</i>
46.12.31	The proposed area for aero geophysical survey is having rugged topography with elevation differences. In such type of terrain Heliborne surveys will be effective. GSI at present is in the process of acquiring heliborne survey system, which is likely to be operational by next field season. Heliborne Geophysical surveys in the proposed areas can be considered only in next F.S. depending upon the availability of resources. [Action: GSI]
46.13.00	CONCLUDING REMARKS
46.13.01	While expressing his happiness on the right activities and involvement of CGPB, Special Secretary (Mines) made the following concluding remarks: <ul style="list-style-type: none"> (i). GPM and NGCM work of GSI had to become much more streamlined. Outsourcing and capacity enhancement measures needed to be considered urgently. States cannot wait for GSI to function at its own slow pace indefinitely. (ii).GSI Portal had shown some improvement; but was not yet properly functional either in terms of data or application. He asked GSI to submit the Completion Report for Phase I and II by the end of February, 2010, and the proposal for Phase II by March 2010. (iii). Special Secretary (Mines) expressed this anguish at GSI's reluctance and delay in outsourcing data entry in the Portal and desired that data entry of post – 1990 Reports should be completed by September, 2010, and pre-1990 Report data entry taken up and completed for the period 1961-90 by September, 2011. (iv). Spl. Secretary (Mines) asked GSI to complete the GMM project quickly so that data can be integrated at the end of the 3rd year. He pointed out that the kind of collaboration with ISRO and academic institutions where GSI functioned as a Quality Control mechanism had the ability to speed up work enormously. He asked GSI to come up with similar proposals in other areas. (v). Similarly on HSM, Special Secretary (Mines) asked GSI to complete the pilot project in Hatti-Muski schist belt and prepare for a national level project which should be brought in CGPB in February, 2011. (vi). On training, Special Secretary (Mines) stated that there was some improvement, and a substantial change in attitude and approach. However, Regional TIs needed to be operationalised. He asked States to make full use of GSITI and RTIs and to propose opening of FTCs. He stated the GSI would be prepared to open an FTC in each State, subject to need and geological potential.

	<p>(vii). On Geoscience Partnership with States and Academic Institutions, he stated that Regional HODs needed to take initiative. He stated that in the next presentation by Regional HODs, focus would be on this aspect.</p> <p>(viii).</p>
46.13.02	<p>An interaction was held between the Special Secretary (Mines), and the State Government representatives where the following points were discussed :</p> <ol style="list-style-type: none"> 1. Ministry of Mines circulated a brief handout on the issues arising out of meeting of Coordination-cum-Empowerment Committee (CEC) to all the State representatives. 2. An interaction between Special Secretary (Mines) and the State Governments' representatives was held. During the interaction, the State representatives were requested to take steps expeditiously on the issues arising out of the CEC Meeting. 3. The State representatives were handed over the list of cases pending mineral concession proposals with the respective State Governments. They were also informed that the Ministry of Mines is returning all the mineral concession proposals to the State Governments which are pending for more than 06 months.
46.14.00	VOTE OF THANKS
46.14.01	Shri Jaswant Singh, Sr. Deputy Director General (STSS) offered vote of thanks.

Members / Participants in the 46th meeting of the Central Geological Programming Board held on 11th and 12th February, 2010 at New Delhi

Sl.No.	Name	Designation	Organisation
1.	Smt. Santha Sheela Nair	Secretary (Mines) and Chairperson, CGPB	Ministry of Mines
2.	Shri S. Vijay Kumar	Special Secretary (Mines)	Ministry of Mines
3.	Shri Niteesh Kumar Dutta	Director General (Acting)	Geological Survey of India
4.	Shri Jaswant Singh	Sr. Dy. DG (STSS)	Geological Survey of India
5.	Dr. Balram Chattopadhyay	ADG & Member Secretary, CGPB	Geological Survey of India
6.	Smt. Ajita Bajpai Pande	Jt. Secretary	Ministry of Mines
7.	Shri S. K. Nayak	Jt. Secretary	Ministry of Mines
8.	Shri Sanjiv Mittal	JS & FA	Ministry of Mines
9.	Dr. K Ayyasami	Director (T)	Ministry of Mines
10.	Shri Bhupal Nanda	Director	Ministry of Mines
11.	Shri Gaurav Kumar	Dy. Secretary	Ministry of Mines
12.	Shri A.K.Bhandari	Advisor	C-TEMPO
13.	Shri R.B.Tyagi	Dy.Advisor	Planning Commission
14.	Shri V.D.Rajagopal	Director	DGM, Andhra Pradesh
15.	Prof. R.C.Hanumanthu	Professor	Tirupati University
16.	Shri J.K.Pashine	Jt.Director	DGM, Chhattisgarh
17.	Shri L.C.Bezbarua	Director	DGM, Assam
18.	Shri Subhash Joshi	Asst.Geologist	DGM, Gujarat
19.	Shri Vir Singh	Sr.Geologist	DGM, Haryana
20.	Shri Arun K.Sharma	State Geologist	DGM, Himachal Pradesh
21.	Shri H.L.Langeh	Geologist	DGM, J&K
22.	Shri Jai Prakash Singh	Director	DGM, Jharkhand
23.	Dr.B.N.Shankar	Dy.Director	DGM, Karnataka
24.	Shri Vasudeva. C	Director	DGM, Kerala
25.	Shri R.K.Sharma	Director	DGM, Madhya Pradesh
26.	Shri V.S.Sawakhande	Director	DGM, Maharashtra
27.	Shri J.K.Sinha	Jt.Director(G)	DGM, Manipur
28.	Dr.H.Lallenmawia	Jt.Director	DGM, Mizoram
29.	Shri K.Arhomu Lotha	Jt.Director	DGM, Nagaland
30.	Shri J.R.Patnaik	Director	DGM, Orissa
31.	Shri G.C.Khanal	Jt.Director(G)	DMMG, Sikkim
32.	Shri B.Jayakumar	Dy.Director	DGM, Tamilnadu
33.	Shri G.D.Prasad	Dy.Director	DGM, Uttarakhand
34.	Dr.Z.A.Khan	Geophysicist	DGM, UP

35.	Shri Somnath Das	Sr.Geologist	DMM, WB
36.	Shri S.Kumar	Member	CGWB
37.	Shri C.S.Gundewar	Controller General	IBM
38.	Shri M.Sengupta		IBM
39.	Dr.A.K.Lomas	CMD	MECL
40.	Dr. S. K. Halder	Director (T)	MECL
41.	Shri V. K. S Visen	Head (Expl)	MECL
42.	Shri Yogesh Sharma	Sr. Manager	MECL
43.	Shri S. K. Gupta	Manager	MECL
44.	Prof. B. C. Sarkar	Director	ISM, Dhanbad
45.	Shri S. Sengupta	Sr. Advisor	Directorate of Hydrocarbons
46.	Shri M.K. Khandelwal	Dy. Regional Director	AMD
47.	Dr. S. N. Chaturvedi	Scientist-F	AMD
48.	Dr. John Kurian P	Scientist-C	NCAOR
49.	Shri Sansar singh	Suptd. Surveyor	SOI
50.	Shri R. H. Sawkar	Secretary	Geological society of India
51.	Dr. J. Krishna Murthy	Dy. Director	EOS, ISRO
52.	Dr. Manoj Dash	Sr. Director	FIMI
53.	Shri S.B. S. Chauhan	Advisor	FIMI
54.	Shri Gour Sunder Saha		FIMI
55.	Shri Arun Kalra		De Beers
56.	Shri Atish Mandal		Heritage World Wide
57.	Shri Uma Shankar Prasad		KDMIPE
58.	Shri Narendra. W. Kadu	Asst. Editor	IBM
59.	Shri R. V. Dhaberkar		IBM
60.	Shri S. K. Gupta		IBM
61.	Shri V. N. Mishra	A.M. (Expl)	HCL
62.	Dr. R. Bhardwaj	AGM (Exploration)	HCL
63.	Shri P. C. Mathur	AGM (Admin)	HCL
64.	Shri M. Krishnan	Chief Geologist	NLC
65.	Shri Y. S. Balakrishnan	GM (Exploration)	SCCL
66.	Shri S. L. Kail	Chief Geophysicist)	NHPC
67.	Shri Manoj Basu	GM (Geotech)	NHPC
68.	Shri M.M. Swamy	Dy. Director General	Geological Survey of India
69.	Shri R. K. Khorana	Dy. Director General	Geological Survey of India
70.	Shri R. G. Vijay	Dy. Director General	Geological Survey of India
71.	Shri Sudipta Lahiri	Dy. Director General	Geological Survey of India
72.	Shri A. K. Sinha	Dy. Director General	Geological Survey of India
73.	Shri P. Pande	Dy. Director General	Geological Survey of India
74.	Shri M. V. Rao	Dy. Director General	Geological Survey of India
75.	Shri K.K.K. Nair	Dy. Director General	Geological Survey of India
76.	Shri Sumant Gupta	Dy. Director General	Geological Survey of India

77.	Shri A. Sundaramoorthy	Dy. Director General	Geological Survey of India
78.	Dr. Shambhunath Ghosh	Dy. Director General	Geological Survey of India
79.	Dr. N. K. Roy	Dy. Director General	Geological Survey of India
80.	Shri B. K. Jena	Dy. Director General	Geological Survey of India
81.	Shri P. V. Sukumaran	Dy. Director General	Geological Survey of India
82.	Shri S. G. Gaonkar	Dy. Director General	Geological Survey of India
83.	A. Vasudevan	Chief Engineer	Geological Survey of India
84.	Shri Sujit Dasgupta	Director	Geological Survey of India
85.	Shri Mukul Tiwari	Director	Geological Survey of India
86.	Dr. Srinivas Madabhushi	Director	Geological Survey of India
87.	Shri H. Sarvothaman	Director	Geological Survey of India
88.	Dr. D. M. Mohabey	Director	Geological Survey of India
89.	Shri L. S. Jain	Director	Geological Survey of India
90.	Shri Pratip Gupta	Director	Geological Survey of India
91.	Shri G. Malhotra	Director	Geological Survey of India
92.	Shri V. C. Srivastava	Director	Geological Survey of India
93.	Dr. S. K Wadhawan	Director	Geological Survey of India
94.	Shri M. S. Jairam	Director	Geological Survey of India
95.	Shri Virendra Kumar	Director	Geological Survey of India
96.	Shri Sanjiv Sharma	Director	Geological Survey of India
97.	Shri G. Dasgupta	Director	Geological Survey of India
98.	Shri N. K. Dhir	Director	Geological Survey of India
99.	Dr. P. C. Basu	Director	Geological Survey of India
100	Dr. S. P. Venkata Dasu	Director	Geological Survey of India
101	Shri T. K. Chakraborty	Director	Geological Survey of India
102	Shri M. Raju	Director	Geological Survey of India
103	Shri B. Chakraborti	Director	Geological Survey of India
104	Shri Ashok Roy Chowdhry	Director	Geological Survey of India
105	Shri M. Mohan	Director	Geological Survey of India
106	Shri Hanumanth Rao	Director	Geological Survey of India
107	Shri A. K. Malviya	Director	Geological Survey of India
108	Shri K. Balasubramaniam	Director	Geological Survey of India
109	Shri D. T. Syiemlieh	Director	Geological Survey of India
110	Shri D. K. Saha	Director	Geological Survey of India
111	Smt Y. Suguna Thulasi	Director	Geological Survey of India
112	Dr.S. K. Chakraborty	Director	Geological Survey of India
113	Shri L. Harendranath	Suptd. Geologist	Geological Survey of India
114	Shri B. Nageswaran	Suptd. Geologist	Geological Survey of India
115	Shri Debashish Ray	Suptd. Geologist	Geological Survey of India
116	Shri Nitish Das	Suptd. Geologist	Geological Survey of India
117	Shri M. P. Gaur	Senior Geologist	Geological Survey of India
118	Shri A. K. Gupta	Senior Geologist	Geological Survey of India
119	Shri Rakesh Kumar	Senior Geologist	Geological Survey of India

120	Shri C. K. Sengupta	Senior Geologist	Geological Survey of India
121	Dr. J. Bagchi	Senior Geologist	Geological Survey of India
122	Shri Asit Saha	Senior Geologist	Geological Survey of India
123	Shri Arunabha Das	Senior Geologist	Geological Survey of India
124	Shri G. Chatterjii	Senior Geologist	Geological Survey of India
125	Shri K. K. Gangopadhyay	Senior Geologist	Geological Survey of India
126	Shri T. Dutta Gupta	Senior Geologist	Geological Survey of India
127	Shri Rajib Chakraborty	Senior Geologist	Geological Survey of India
128	Shri S. N. Bhagat	Senior Geologist	Geological Survey of India
129	Shri D. Rout	Senior Geologist	Geological Survey of India
130	Shri Debasish Sengupta	Senior Geologist	Geological Survey of India
131	Shri S. S. Dutta	Senior Geologist	Geological Survey of India
132	Shri S. Dutta	Senior Geologist	Geological Survey of India
133	Shri S. Chowdhry	Senior Geologist	Geological Survey of India
134	Shri G. K. Kesari	Senior Geologist	Geological Survey of India
135	Smt. Kokali Jana	Senior Geologist	Geological Survey of India
136	Shri Atul Kohli	Geologist	Geological Survey of India
137	Shri A. B. Ekka	Geologist	Geological Survey of India
138	Shri G K Chakraborty	Senior Geophysicist	Geological Survey of India
139	Shri A. k. Chattopadhyya	Senior Geophysicist	Geological Survey of India
140	Shri R. Ananda Reddy	Geophysicist	Geological Survey of India