Record of Discussion held at GSI HQ on 25th January 2019 regarding Landslide studies, Earthquake hazard assessment and Seismic monitoring etc.

A meeting was held at GSI Hq on 25th January 2019 to discuss the activities related to Landslides, seismic hazard assessment, seismic monitoring and GPS studies, being taken up by GSI and MoES.

The list of participants is provided in Annexure-1.

At the outset DG, GSI welcomed Dr. B K Bansal and expressed his pleasure to have such a meeting between two pioneer organizations working on earth science studies. DG, GSI informed that GSI being a scientific institution of repute has been working in many spheres of geological milieu and also is the nodal agency for Landslide studies in India.

Dr. B.K. Bansal, Advisor to MoES mentioned that as both MoES and GSI are government organizations, work carried out by these organizations should complement each other and duplication of work needs to be avoided. As per the existing MoU between the two organisations, various data sets, viz., related to Landslides, Seismic hazard assessment, seismic and GPS observation etc. may be shared to maximise the output. Dr. Bansal briefly mentioned about the seismic and GPS stationed being maintained by NCS and by other institutions in project mode. He also touched on the efforts being done to microzone the selected cities of the country.

DG, GSI initiated the discussion with a note that any work carried out or to be carried out by both the organizations must bring out fruitful results on ground.

The topics discussed in detail and decisions taken during the meeting are as follows:

1. Landslide studies:

Dr. K. Jayabalan narrated a picture of the landslide work carried out by GSI, the nodal agency for landslide studies, its planning, future endeavours and on the landslide information management. On specific query regarding the areas where GSI is not working on landslide studies, Dr. A.K. Mishra, Director GHRM Centre informed that at present designing for mitigations, slope stability analysis are not being carried out by GSI. Dr. Mishra also informed about the ongoing Landslide early warning project. It was further informed that all the data are maintained in Landslide Hazard Studies thread in Bhukosh, the GSI OCBIS portal (www.gsi.gov.in) and the same can be viewed by any stakeholders. Dr Bansal mentioned that NCESS has recently conducted a brainstorming meeting to take a stock of landslide studies, identify gaps and planning the future work in this area. NCESS and GSI may work together on specific aspects of landslides, he added.

2. Earthquake and Seismic Studies:

Dr. S. K. Som mentioned that GSI has been maintaining BBS and GPS stations at selected sites to monitor the earthquakes and study the geodynamics of Indian and adjoining plates as well as its application on different mapping programmes.

3. Seismic micro zonation studies:

On specific query from Dr B. K. Bansal on the rationale on which GSI is taking up seismic microzonation studies, it was informed that the cities that are not covered by MoES and where specific request is received from Stakeholders, GSI take up microzonation studies as per MoES guideline (under Level B).

4. Studies on cores of deep drilling in Koyna region

Dr. S.K. Som informed that even though GSI and MoES have a continuing MoU, still there is difficulty in getting the Koyna Cores of the deep drilling project of MoES in Koyna, for detailed study by GSI. DG, GSI enquired about the status of the communication with MoES. Dr. Som informed that GSI had approached MoES for the study of cores for defining geological boundaries and developing refined stratigraphy, which is still pending with MoES. Dr. Bansal mentioned that as per the decision, taken in one of the meetings of National Steering Committee, represented by GSI, MoES is yet to get a brief proposal from GSI. Also, Official from GSI needs to visit BGRL to identify the specific samples.

After a detailed discussion, following points emerged:

1. GSI and NCESS may collaborate on specific studies related to landslides in Kerala region, to start with.

2. Director, Landslide Studies Division, GHRM Centre shall send the link with a small write up, on the work carried out by GSI, to Dr. B. K. Bansal with a copy to DG GSI.

3. GSI and MoES may share the available seismic and GPS data to undertake specific studies. The list of BBS and GPS stations under the control of GSI and MoES may be exchanged to decide the requirement of data sets. Both the institutions will work on the data maintaining the confidentiality.

4. Details of microzonation studies along with parameters that GSI has used may be shared with MoES. The Meta data as well as copy of the reports of completed studies shall be provided by GSI to MoES.

5. GSI shall send a brief proposal to MoES on the work to be carried out around core samples. Also, Dr. Bodas from GSI will visit BGRL, Karad to select the required samples.

6. Considering the expertise available at MoES/NCS, GSI officials may be trained on seismic tomography. GSI may sent a request letter to MoES for the purpose.

7. Laboratory facilities (Geochemical, geochronology and others) available in GSI and MoES may be shared amongst the scientists of both the institutions.

The meeting ended with pleasantry exchanged between Dr. Dinesh Gupta, DG, GSI and Dr. B. K. Bansal, Advisor MoES.

Annexure-1

List of participants

Sl.No	Name & Designation
1.	Dr. Dinesh Gupta, Director General GSI
2.	Dr. B.K. Bansal, Advisor, MoES
3.	Shri R. S. Garkhal, ADG, PSS
4.	Dr. K. Jayabalan, DDG, MIVA
5.	Dr. S.K. Som, Director, GSD, GHRM Centre
6.	Shri S.K. Singh, Suptd Geophysicist, SGDRPC
7.	Dr. O.P. Singh, Senior Geophysicist, SGDRPC
8.	Dr. Bidisha Gupta, Director, IA & IGC
9.	Shri Sailendra Singh, Director, TS
10.	Dr. Sreemati Gupta, Director, IGC
11.	Shri A.K.Mishra, Director, LnSD, GHRM Centre