



Government of India
Geological Survey of India
International Affairs & IGC
Policy Support System
Central Headquarters
Kolkata -700 016

**Recommendations of the Term Review Meetings Held on 26th Feb 2019 on 36th IGC
linked FSPs for F.S 2018-19**

The Term Review meeting was held on 26.02.2019 through video conference with all the regions for reviewing the status of the IGC linked 22 FSP items of FS 2018-19, under the Chairmanship of Shri R. S. Garkhal, ADG, PSS and Co-Chairmanship of Dr. S Raju, ADG & NMH-IV, GSI along with Shri P. C. Patra, DDG, PSS, Shri P. Tarafdar, DDG (Retd.) & Advisor to GSI, Shri M Raghupathy, DDG, IA & IGC, Shri Saudipta Chattopadhyay, Director, PSS, P & M-VII, Shri Niroj Kumar Sarkar, Director, PSS, P & M-I, Shri Ashish Kumar Nath, Director, PSS, P & M-IV, Smt Bidisha Gupta, Director, IA & IGC, Dr. Sreemati Gupta, Director, IA & IGC and officers of IA & IGC.

ADG PSS in his welcome address emphasised on the big opportunity for GSI to showcase India's diversified culture, heritage, history along with geology in 36IGC field trips and advised all to utilize this opportunity to the fullest.

Keeping in view the time line for submission of Field guide book to 36th IGC, ADG & NMH-IV, advised the respective coordinators to optimise and expedite laboratory analyses and inform M-IV accordingly for taking these analyses on priority basis and achieve target on time.

DDG, IA&IGC briefed about the general guideline for developing the 36th IGC field trips and the field guide book. It was informed that the guide book needs to be prepared as per template provided by 36IGC society and May 2019 is the deadline for submission of first draft of the guide book by the coordinators to 36th IGC.

After the introductory address, the Co-ordinators/Supervisory officers and members of each FSP item participated and presented from different regions/ state units through video conference, in presence of their respective HOD/ DDGs.

Review committee provided technical guidance for enhancing the overall quality of the proposed field trips and for value addition during preparation of field guide for each item, which is given below.

ITEM-WISE RECOMMENDATIONS OF THE TERM REVIEW COMMITTEE

Sl. No.	FSP title / code	Suggestions/ recommendations
1	<p>Geological studies along North Singhbhum Mobile Belt from Ranchi to Jamshedpur for the IGC 2020 field traverses.</p> <p>Item code: ER002</p> <p>Name of the presenter: Shri Abhisekh Das, SU: Jharkhand, Ranchi, ER</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Engage professional for showing panning activity during field excursion. 3. Prepare compiled geological map including field traverse lines, spots which should be incorporated in the field guide book. 4. No of spots in each day may be judicially finalized with geological, cultural and tourist interests.
2	<p>Rajgir-Bodh Gaya- Barabar Geotourism: Deciphering Stories in Stones.</p> <p>Item code: ER004</p> <p>Name of the presenter: Shri A. A. Raza, Sr. Geologist, SU: Bihar, Patna</p>	<ol style="list-style-type: none"> 1. Excellent presentation. 2. Geochronological studies to be removed from the NQT table. 3. Prepare guide book as per 36th IGC template. 4. Mention gold exploration history of the area in geological description. 5. Prepare compiled geological map including field traverse lines, spots which should be incorporated in the field guide book. 6. Incorporate more geological data while describing geoheritage sites. 7. To convert pillow basalt into a geological monument.
3	<p>Geological studies in parts of Teesta river basin, Sikkim & West Bengal towards generating field/lab database for IGC 2020 field excursions along the route Kalijhora- Ellenbari Odlabari, Chalsa- Matiali- Nagrakata- Thaljhora, Ambari-Gazoldaba-Domohani-Fulbari.</p> <p>Item code: ER005</p> <p>Name of the presenter: Shri Mriganka Ghatak, Director, DGCO, Delhi</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Carbon stable isotope studies to be taken with BSIP. 3. Prepare compiled geological map including field traverse lines and day wise spots. 4. To prepare description of each spot for the proposed traverse route.
4	<p>Geological studies in parts of Darjeeling Himalayas towards generating field database for the IGC field excursion along Kurseong-Darjeeling-Mirik-Kalimpong route for understanding the prevalent landslide failure mechanisms.</p> <p>Item code: ER008</p> <p>Name of the presenter: Dr. Saibal Ghosh, Director, DGCO, Delhi</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Prepare compiled geological map including field traverse lines, spots to be incorporated in the field guide book. 3. Describe the geological significance in each spots along with the landslide information. 4. To prepare description of each spot for the proposed traverse route.
5	<p>Geological studies in parts of Western part of Sunderbans towards generating field/lab database for IGC 2020 field excursions along the rivers like Muri Ganga, Hatalia-doania, Saptamukhi, Thakuran, Matla, Bidya, Raimangal in the</p>	<ol style="list-style-type: none"> 1. Very Good presentation. 2. The fund related issue between Jadavpur University and 36th IGC needs to be resolved.

	<p>locations like Ghoramara, Chemaguri-Sagar Island, Jombudweep, Bakkhali, Kalash beach, Bonnie Camp, Jharkhali, Sajnekhali, Dobankee, Burir Dabri.</p> <p>Item code: ER001</p> <p>Name of the presenter: Shri Debasish Sengupta, Sr. Geologist, Vishakhapatnam</p>	<ol style="list-style-type: none"> 3. Prepare complied geological map including field traverse lines, spots, photographs etc. which should be incorporated in the field guide book. 4. Post mitigation work by Govt. of India or West Bengal Govt. for 2014 tsunami affected areas may be highlighted.
6	<p>Geological studies in parts of Andaman Islands towards generating field /laboratory database for the IGC 2020 field excursion along the route Portblair-Chidiyatpu- Baratang- Havelock Island.</p> <p>Item code: ER010</p> <p>Name of the presenter: Dr. Tapan Pal, Director, Shillong</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. To collect representative rock/ mineral samples to display during IGC 2020. 3. U-Pb data should be removed from NQT. 4. To incorporate field photograph in context with write up. 5. Location of photographs to be mentioned. 6. Spots and traverse lines to be shown in a single geological map.
7	<p>Geological studies in parts of Arunachal Himalayas towards generating field/ laboratory database for IGC-2020 field excursion along the route Bhalukpong-Bomdila-Tawang, Arunachal Pradesh.</p> <p>Item code: NER001</p> <p>Name of the presenter: Dr. Basab N. Mahanta, Suptg. Geologist, Shillong</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. Number of days for the field traverse to be finalized and informed accordingly to 36th IGC society. 3. Inner line permit to be obtained from MHA. 4. U-Pb dating should be removed from NQT. 5. Some important landslide along traverse route may be shown to the delegates. 6. Sample analysis may be pursued. 7. Exact locations to present the evidences of the inverted metamorphic sequences of Himalaya to the delegates should be kept in readiness, so that the spots can be shown to the delegates if required.
8	<p>Geological studies in parts of Meghalaya Craton towards generating field/ laboratory database for IGC 2020 field excursion along Guwahati-Cherrapunjee-Nongstoin section, Meghalaya.</p> <p>Item code: NER004</p> <p>Name of the presenter: Dr. Tapan Pal, Director, Shillong</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. Photographs to be in context with the write-up and same may be included in the field guide book. 3. Zircon U-Pb dating to be removed from NQT.
9	<p>Geological studies in parts of Rampura-Agucha, Dariba and Zawar areas of Rajasthan towards generating field/lab database for IGC 2020 field excursions.</p> <p>Item code: WR001</p> <p>Name of the presenter: Shri Abhishek Anand, Sr. Geologist, Jaipur</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. To sort out the issue regarding pending geochronological data analysis in consultation with Director, Geochronology. 3. Good quality and sufficient field photographs needs to be included in the field guide book. 4. Describe each spot with complete information (geology, geotourists, history etc). 5. Procedures/formalities for taking the delegates for visiting underground mine may be taken care in advance.
10	<p>Geological Studies in parts of Khetri Copper Mineralization, Jhunjhunu district Rajasthan</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Good quality and sufficient field photographs needs to be included in the field guide book.

	<p>towards generating field/lab database for IGC 2020 field excursions.</p> <p>Item code: WR002</p> <p>Name of the presenter: Dr. Vineet Kumar, Sr. Geologist, Jaipur</p>	<p>3. Prepare compiled geological map including traverse lines, field spots, photographs etc. which should be incorporated in the field guide book.</p>
11	<p>Geological studies in parts of Satluj Valley, NW Himalaya towards generating field/lab database for IGC 2020 along Luhri-Duttanagar-Rampur-Sangla-Chitkul route.</p> <p>Item code: NR003</p> <p>Name of the presenter: Shri Sharat Dutta, Sr. Geologist, Faridabad</p>	<p>1. Very good presentation. 2. Large number of data has been generated, but needs to be optimised for inclusion in the field guide book. 3. Prepare compiled geological map including field traverse lines, spots, photographs etc. which should be incorporated in the field guide book.</p>
12	<p>Geological studies in parts of Haryana towards generating field/lab database for IGC 2020 along Rohtak-ToshamHissar-Fatehabad-Rakhigarhi route.</p> <p>Item code: NR004</p> <p>Name of the presenter: Shri Mohd. Atif Raza, Sr. Geologist, Faridabad</p>	<p>1. Very good presentation. 2. Follow up of the pending analytical data to achieve the timeline for field guide book submission. 3. Request may be sent to NMH-IV, GSI for considering additional analysis. 4. Trenching is required before IGC main traverse, for which 36th IGC may be contacted, for modalities.</p>
13	<p>Geological studies in parts of Kumaun Himalayan sequence towards generating field/lab database for IGC 2020 field excursions along the route from Kathgodam to Garbadhar.</p> <p>Item code: NR005</p> <p>Name of the presenter: Dr. Pankaj Saini, Director, Lucknow</p>	<p>1. Very good presentation. 2. Appreciable amount of structural data has been generated on the deformation history. 3. Few well defined field spots depicting the typical tectonic and structural elements of the Himalaya may be selected to show the visitors. 4. Time management of the traverses need to be planned in detail. 5. To sort out the issue regarding pending geochronological data analysis in consultation with Director, Geochronology.</p>
14	<p>Geological studies of Siwalik sections in parts of Markanda valley, H.P towards generating field database for IGC 2020 field excursions along the route Saketi-Moginand-Trilokpur.</p> <p>Item code: NR011</p> <p>Name of the presenter: Dr. R. S. Chandel, Sr. Geologist, Lucknow</p>	<p>1. Very good presentation. 2. Audio-visual of the Saketi Museum to be prepared by the team for display in 36th IGC. 3. Additional fund may be asked from 36th IGC society/ DG, GSI for infrastructural development of the museum. 4. Finalise few fossiliferous spots along traverse route to showcase during main trip.</p>
15	<p>Geological studies of Lesser Himalayas in parts of Dehradun- Rishikesh- Okhimath towards generating field/ lab database for IGC 2020 field excursion.</p> <p>Item code: NR008</p> <p>Name of the presenter: Dr. Shailendra Singh, Director, CHQ, Kolkata</p>	<p>1. Good presentation. 2. Field spots per day need to be finalised along with description of each spot. 3. To plan for time management during the field trip. 4. To prepare compiled geological map with all the field spots, traverse line, etc.</p>

16	<p>Geological studies in parts of Tirunelveli, Kanniyakumari and Thiruvananthapuram districts of Tamil Nadu and Kerala to study the metamorphic history of Charnockite - Khondalite suite of rocks in southern part of Southern Granulitic Terrain (SGT).</p> <p>Item code: SR005(S)</p> <p>Name of the presenter: Shri S Balakrishnan, Sr. Geologist, Chennai</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Final spots for each day need to be fine tuned. 3. Chemical analysis need to be completed within stipulated time and incorporation in field guide book.
17	<p>Geological studies in parts of Madukkarai – Kangeyam- Sittampundi - Dharapuram – Oddanchatram – Manamedu sectors towards generating field/lab database for IGC 2020 field excursions to study the Tectonomagmatic evolution of Southern Granulite Terrain (SGT) in Tamil Nadu along the route Coimbatore – Kodaikanal - Namakkal”.</p> <p>Item code: SR005(N)</p> <p>Name of the presenter: Shri V Chandramouli, Suptg. Geologist, Chennai</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. To plan for time management for showing each spots during the main field excursion. 3. Prepare compiled geological map including traverse lines, field spots, photographs etc. which should be incorporated in the field guide book.
18	<p>Geological studies along the selected transect of Tamil Nadu, towards generating field database concerned to Dimension Stone Granite Deposits for IGC 2020 field excursions along the route Chennai – Pondy – Salem – Trichy – Madurai.</p> <p>Item code: SR019</p> <p>Name of the presenter: Dr. K Jayabalan, DDG, M-IV, Kolkata</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Recent photographs of the quarries may be included by involving professional photographer. 3. Attempt may be made to show the processing of dimension stones at quarry site.
19	<p>Geological studies in parts of the Proterozoic Cuddapah basin, Eastern Dharwar Craton, India, towards generating field / lab database for IGC 2020 field traverse along Kadiri-ParnapallePulivendela-Gandikota; Banaganapalle; Mangampeta and Tirumala transects.</p> <p>Item code: SR007</p> <p>Name of the presenter: Dr. V. V. Sessa Sai, Director, Nagpur</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. The areas/spots along traverse route need to be revised.
20	<p>Geological studies in parts of Satpura Basin towards generating field/lab database for IGC 2020 field excursions route along Nagpur-Pachmari- Pipariya- Itarsi- Bhopal.</p> <p>Item code: CR001</p> <p>Name of the presenter: Shri R. G. Khangar, Director, Nagpur</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. Good plan of traverse line. 3. As Panchmari area is itself a tourist spot, and there are many attractive geological spots in this area, a type/ best sections of Gondwana may be shown to the visitors. 4. Prepare compiled geological map with all the information, spots, traverse line.

21	<p>Geological studies in parts of Betul Belt towards generating field/lab database for IGC 2020 field excursions along the route Bargaontarora-BhawaraTekra- Bhimbetka.</p> <p>Item code: CR006</p> <p>Name of the presenter: Dr. M L Dora, Director, Nagpur</p>	<ol style="list-style-type: none"> 1. Good presentation. 2. Adherence to time management during field trip is needed. 3. To sort out the issue regarding pending analytical data w.r.t laboratory.
22	<p>Preparation of field guide and finalisation of transect for the Study of Characters, Landscapes and Sculptures (Impact Crater to Rock cut caves) in the Deccan Province in connection with 36th IGC 2020.</p> <p>Item Code: CR004&CR005</p> <p>Name of the presenter: Mrs. Treesa M I, Sr. Geologist, Nagpur</p>	<ol style="list-style-type: none"> 1. Very good presentation. 2. Identification of the spots for the CR004 field trip is required. 3. As suggested by coordinator of CR 005 field trip, Chairman advised to initiate the process for involving ASI during main field trip for explaining few locations to the visitors.

General Comments and Recommendations

1. The projects discussed during the Term Review Meeting were well presented and all the teams have done to the best of their abilities in making the content of the tour guide worth and interesting.
2. In general, the proposed field trips for IGC, should have an overall information of geology of the area, as well as different aspects of geotourism, like Indian culture, geo-heritage sites, archaeological sites, historical sites and natural landscape.
3. The team may consider engaging qualified guides for historical and archaeological sites for the delegates during the field trip. Alternatively, the officers of GSI accompanying with the delegates need to be well versed with the geological explanations like rock type, composition, formation, age etc. of archaeological rock artefacts.
4. The field guide book need to be prepared following the 36th IGC template and submitted to 36th IGC directly under intimation to respective Regional Heads, NMH-IV and IA&IGC, GSI. As per 36th IGC time line the first draft of the field guide book is to be submitted by May 2019. The infrastructural setup required at each field spots, like signages, banners, trenching, cleanliness need to be developed in detail.
5. All ADG and HoDs/ DDG of S.U of respective regions are requested to kindly facilitate the completion of laboratory analyses w.r.t these 22 FSP items, considering the priority to submit the field guide book in time.

List of participants from CHQ

1. Shri R. S. Garkhal, Additional Director General, PSS
2. Dr. S. Raju, Additional Director General & NMH-IV
3. Shri Pradipta Tarafdar, Dy Director General (Retd.), Advisor to GSI
4. Dr. K Jayabalan, Deputy Director General, M-IV
5. Shri P. C. Patra, Deputy Director General, PSS
6. Shri M. Raghupathy, Deputy Director General, IA & IGC
7. Shri Saudipta Chattopadhyay, Director, PSS, P & M-VII
8. Smt. Bidisha Gupta, Director (TC), M-IV
9. Dr. Sreemati Gupta, Director, IA & IGC
10. Shri Ashish Kumar Nath, Director, PSS, P & M-IV
11. Shri Niroj Kumar Sarkar, Director, PSS, P & M-I
12. Dr. Shailendra Singh, Director, TS to DG, GSI.
13. Smt. Drishya G., Senior Geologist, IA & IGC
14. Shri Susobhan Neogi, Geologist, IA & IGC