

**MINUTES OF THE 15TH MEETING OF COMMITTEE VI OF THE CENTRAL
GEOLOGICAL PROGRAMMING BOARD ON MARINE GEOLOGY &
EXPLORATION AND COASTAL GEOSCIENCES HELD ON 6th SEPTEMBER, 2019
AT, MCSD, GSI, MANGALURU**

Item No	Minutes	Action by
15.1	<p>The 15th meeting of the Committee-VI of CGPB on Marine Geology & Exploration and Coastal Geosciences was held on 6th September, 2019 at M. V. N. Murthy Conference Hall, MCSD, GSI, Mangaluru under the Chairmanship of Shri N Maran, Deputy Director General & HOD, MCSD, GSI as the Convener.</p> <p>Shri A C Dinesh, Director (PSS), MCSD, GSI, Mangaluru & Member Secretary, CGPB committee VI welcomed all the members of committee-VI of CGPB, other participants to the meeting and the members from the operational offices of MCSD who joined the meeting through video conferencing. Shri A C Dinesh briefed about the CGPB meeting and its relevance in the present scenario. He urged and envisaged the committee to act as a think tank in the marine geoscience domain and to come out with effective collaborative programs. Shri A C Dinesh thanked all the members for accepting the invitation to participate in the meeting. Further, he requested Shri N Maran, Dy.DG & HoD, MCSD to chair the session and conduct the proceedings.</p>	All members
15.2	<p>Shri N Maran, the Chairman, in his presidential address welcomed all members. The chairman informed that GSI plays a major role in generating good quality data. MCSD has been doing the sea bed surveys for more than three decades in the Territorial Waters (TW) and Exclusive Economic Zone (EEZ) of India and could delineate many offshore mineral blocks along east and west coast, which were submitted to Ministry of Mines (MoM) for auction.</p> <p>He mentioned that this is the time to formulate Field Season Programmes for 2019-20 and the proposal of GSI had already been circulated to the members so that the members can come forward with their suggestions and collaborative proposals in accordance with the Data Sharing and Accessibility Policy 2019 of GSI. He requested all members to participate actively and meaningfully in the meeting for the betterment of marine science.</p>	All members
15.3	<p>The Chairman then requested all members, invitees and special invitees of the CGPB committee -VI who were present in the meeting for self-introduction. All the members present in the meeting gave a brief shelf introduction.</p>	
15.4	<p>Confirmation of minutes of 14th meeting: Shri A C Dinesh, Director (PSS) informed that the minutes of the 14th meeting of Committee-VI of CGPB and the action taken thereof had already been circulated and if any modifications needed can be incorporated and the minutes could be confirmed.</p>	MCSD, GSI

15.5	Follow up action on discussions held during 14th meeting: Shri A C Dinesh, Director (PSS), briefly explained the Action Taken on the points pertaining to MCSD, GSI and other members also briefed on Action Taken by respective departments which are summarised as follows:		
Follow up action on discussions held during 14th meeting			
14.8	<p>Dr.B.K. Jena suggested that the sharing of bathymetric data collected by NIOT from 5m to 30m off the shore can be useful to GSI and simultaneously the bathy data and seabed sediment characteristic data of GSI can be useful to NIOT and further discussions have to be done regarding this data sharing.</p> <p>Upon inquiry on the status of the project the Shri J. Rajakumar, Scientist D of NIOT, informed that fund was allotted to them recently and the project is yet to be taken-up. Once and when the project is initiated and MoU is in place, the data can be shared as per the Government of India Policy.</p>	NIOT and HoD MCSD	
	<p>Dr. V.Ranga Rao, NCCR asked for combined participation with GSI for a biogeochemical project from Pulicat to Gulf of Mannar, along the SE coast of India. MCSD has replied that its programs are already planned and they can send a proposal if it coincides with their requirement. In continuation, NCCR was asked to submit their proposal for collaborative projects with GSI by the end of September 2018.</p> <p>The Convener has asked the NCCR to submit the proposal immediately to go onboard vessels of GSI as per the scheduled FSP program which was shared earlier. The collection of seasonal data may not be possible as requested.</p>	NCCR	
	<p>Comde Manoj Kumar Singh, MoD, noted on the absence of a few Committee members and suggested that if the members have not attended the meeting and failed to intimate, the Committee should look at the matter of continuing them. He further said the minutes of the meeting should be approved within one month and circulated on e-mail to the stakeholders and the Secretariat should make timely interaction with the stakeholders for the Action taken report so as to have accountability.</p> <p>During the discussions on this subject it is concluded that the concerned Ministry/Government to be informed regarding the non-participation of stakeholders. Dropping of stakeholders, if required, in consultation with concerned Ministry/Government needs to be done through the CGPB secretariat. Stakeholders are also invited to join the meeting through videoconferencing facility from the nearest GSI office if possible. It also emerged during the discussions that with the change in need and advancement of time,</p>	Member Secretary, CGPB Com VI	

	reconstitution/revamping of CGPB Committee VI and its Terms of reference is required, with the approval of the competent authority.	
	<p>Commodore Manoj Kumar Singh further inquired about the database of marine survey vessels on which MCSD replied that all Ratakaar Cruise summaries were already uploaded in the OCBIS portal. The dynamic position of RVS Ratnakar will also be made available once the issues in the dynamic linking of RVS Ratnakar positioning are sorted out. Further, he elaborated on the importance of climatic research as a user agency and emphasised on the importance of underwater awareness and requested the scientific community to chalk out the methodology to improve underwater awareness. Chairman reiterated that these constructive suggestions would be implemented as far as possible.</p> <p>Shri S. Sengupta Director CGPB Secretariat GSI has added that a National Geoscience Data Repository (NGDR) is soon to be established where all the stakeholders need to upload the collected geoscience data to a common pool.</p>	
	<p>Dr.T. Kannadasan, Chief General Manager/Geology-Mines & Coal Blocks, NLCIL, reminded on the collaborative project for marine survey in Thirumullaivasal for construction of a jetty and informed that NLCIL will approach GSI for taking up the work after getting administrative sanction from State Government for land acquisition to the project.</p> <p>The committee accepted his request and considered the point closed.</p>	A
	<p>Shri. S.Roychaudhuri further inquired whether collaborative programs can be made with NIOT for the acquisition of data in 0-30m water depth to which NIOT has agreed to send their proposal in the format to be supplied by GSI.</p> <p>Dr.V. Ambili, Director, Op.EC-II, Visakhapatnam, inquired whether data collected by NIOT in 0-30m water depth on the AP coast can be used by GSI to which NIOT replied that the same can be done after an MoU is placed between GSI and NIOT.</p> <p>Discussion: NIOT replied that those data collected by NIOT was for other agencies and not a part of their in-house project and so they are unable to share the data so collected. Any data collected from inhouse projects will be shared with.</p>	NIOT and HoD MCSD
15.6	<p>Presentation by member organization on highlights of work carried out and on future proposals: Shri N Maran, Chairman invited representatives from member organizations to present the highlights of work carried out by them during the period from August-2018 to July-2019 and a brief outline of proposals for coming field season.</p>	

15.6.1	<p>Pawan Dewangan, CSIR-National Institute of Oceanography, Dona Paula, Goa, India gave a presentation on Geodynamics of the Andaman subduction zone, forearc and backarc basins. He briefed on the studies carried out by NIO in the Andaman sector in understanding the basic geodynamic setting and tsunamigenic earthquake. Since GSI is also doing a similar kind of data collection in the Andaman sector, a collaborative project can be mounted benefiting both the organizations. He also presented the methodology of AVO analysis used by NIO in understanding the migration of fluids through the possible conduits. Such knowledge sharing can benefit the exploration strategy of MCSD, GSI.</p> <p>He proposed collaborative/ joint cruises with two regional line in Andaman sector with the objectives for</p> <ul style="list-style-type: none"> • Delineation of deep crustal structure across the Andaman Nicobar subduction zone through deep seismic surveys (active source) onboard R/V Samudra Ratnakar. • Understanding the role of subduction of ridges, other seabed morphological features for earthquake hazard. • Role of fluid migration in Tsunamigenic earthquakes in the Andaman-Nicobar segment. • Geochemical evolution of Andaman arc-back arc system • Origin of seamounts. <p>The NIO was asked to submit a detailed proposal in the standard FSP proposal format at the earliest. MCSD, GSI to modify the proposal for FS 2020-21 and to submit the same to IPR.</p> <p>Shri. S. Roychaudhuri, Suptdg. Geologist, PSS-P&M-1, CHQ, requested MCSD, GSI to put up a collaborative proposal in processing the seismic data already acquired by GSI in terms of AVO analysis in understanding the migration of fluids.</p>	MCSD, GSI & NIO
15.6.2	<p>Dr. N. Satyavani, Senior Scientist of the Gas Hydrate group of CSIR-National Geophysical Research gave a presentation on the possible collaboration with GSI. She deliberated on the methodologies developed by NGRI in processing the multi-channel seismic data including PCA based Seismic Attribute analysis, RTM/PSDM(for getting the better image), Reverse time Migration using FWI(For bettering the velocities), Seismic Interpretation, which can be applied to data collected by GSI in enhancing the output.</p> <p>She also presented on the possibility of having a collaboration on mobilization and deployment of Ocean-bottom seismometer (OBS) owned by NGRI which involves a huge financial requirement. She enquired about the possibility of accommodating the entire cost of mobilization and deployment which accounts for 50 lakhs (approx.) for 10 OBS.</p> <p>The Convenor replied that GSI can provide the platform to carry out the work but the financial part needs to be looked after by NGRI. He also asked Dr. N. Satyavani, Senior</p>	

	Scientist of the Gas Hydrate group of CSIR-National Geophysical Research to submit a concrete proposal in this regard so that the Ocean-bottom seismometer (OBS) owned by NGRI can be put into use during Seismic cruises of MCSD.	
15.6.3	Mr. Abhishek Tyagi, Scientist C, ESSO-National Centre for Polar and Ocean Research, Goa briefed on the work undertaken by NCPOR last year in 5 cruises and also deliberated on the work plan for forthcoming cruise 2019-20.	
15.6.4	Dr. V. Ranga Rao, Scientist – F, NCCR, Chennai , briefed on the work being carried out by NCCR. As per the FSP plans circulated by GSI, NCCR scientist proposed to come onboard RVS Kaustubh for cruise planned off Vizhunthamavadi, Nagapattinam dist, Tamilnadu for surface sample collection. The Convenor has advised NCCR to submit a proposal to MCSD, GSI as early as possible to include the component in the FSP proposal. It was also decided that if the scientists are not onboard and if they can deliberate the method of sampling and preservation, the samples can be collected by geoscientists of GSI and handover the same to NCCR on completion of the cruise.	NCCR & MCSD, GSI
15.6.5	Shri. T. S. Shaji, Officer-In-Charge, BSOI, Thiruvananthapuram, presented the summary of work carried out from August 2018 to July 2019 by AMD. He also briefed on the proposals of AMD to be taken up during the field season 2019-20 (November 2019 to October 2020), During the discussion Shri. S. Roychaudhuri, Suptdg. Geologist, PSS-P&M-1, CHQ, suggested to find out the modalities to integrate the onshore data collected by AMD on Beach placers and the offshore data collected by MCSD GSI. He also asked GSI to propose boat works in the offshore areas adjacent to offshore Beach Placers where AMD has proved the resources. Shri A.C Dinesh, Director PSS and Member Secretary has replied that most of the boat works of GSI are planned based on the available beach placer resources reported by AMD or adjacent to offshore placer resources reported by GSI. He also informed that the data density of AMD in the onshore area and the data density in the offshore area by MCSD are not same. Further, the placer data in the dynamic zone near wave break and swash area will constantly change. In view of not having uniform subsurface placer data due to equipment constraints onboard GSI vessel, only surface distribution can be tried to integrate with AMD.	AMD & MCSD.
15.7	Presentations by Officers of GSI: Shri N Maran, Chairman requested all DDG, Director TC/representative to brief about their works carried out during 2018-19 and works to be carried out during 2019-20 of their respective operational offices of M&CSD, GSI.	
15.7.1	Overview of FSP: 2018-19 & 2019-20 of MCSD, GSI, was briefed by Shri A.C.Dinesh, Director, PSS, MCSD.	

15.7.2	Shri M K Rao, Deputy Director General, MCSD, Visakhapatnam presented the highlights of the cruises taken up by MCSD, Visakhapatnam for FS 2018-19 and the programs to be taken up during 2019-20.	
15.7.3	Shri A V Gangadharan, Deputy Director General, MCSD, Kolkata presented the highlights of the cruises taken up by MCSD, Kolkata for FS 2018-19 and the programs to be taken up during 2019-20.	
15.7.4	Shri G Nagendran, Director (TC), MCSD, Mangalore presented the highlights of the cruises taken up by the MCSD, Kochi and MCSD, Mangalore for FS 2018-19 and the programs to be taken up during 2019-20.	
15.8	Any other item with the permission of the Chair	
15.8.1	DGM, Karnataka suggested collaborative studies on the hazards of sand mining. The Convenor has requested the DGM, Karnataka to submit a detailed proposal to MCSD, GSI and the modalities can be worked out.	DGM, Karnataka
15.8.2	Shri S. Sengupta, Director, CGPB Secretariat raised a concern on the non- participation of main stakeholders like MoES and IBM. He called for modification/up-gradation of base document of CGPB Committee VI. He also requested the Member Secretary, CGPB Committee VI to send the highlights of the 15 th CGPB meeting to the main CGPB. He raised the issue of finalisation of the OAMDR Act by IBM.	Member Secretary, CGPB Com VI
15.8.3	The members discussed on the Deep Ocean Mission mooted by MoES. MCSD, GSI informed the house that the possibility of collaboration in terms of deploying and utilizing the facility of R V S Ratnakar was conveyed to MoES through the written reply on the project submitted to Secretary, MoES by the office through Secretary MoM. Shri S. Sengupta, Director, CGPB Secretariat insisted, MCSD, GSI to take up the matter with ministry and make sure that GSI is also a part of the Deep Ocean Mission program.	HoD, Marine
15.9	Concluding remarks: Shri N Maran, Dy. Director General, MCSD, GSI thanked all the members and invitees of CGPB Committee VI for their active participation in the meeting. He said that all the agenda points have been discussed critically and reviewed. He further advised that the valuable and constructive suggestions put forward in the meeting should be implemented. He requested all member organizations to come forward and contribute to fulfilling the recommendations. He ended his concluding remarks by thanking all the presenters and for the active participation in discussions in the 15 th CGPB meeting of Committee VI.	
15.10	Vote of thanks: Shri A C Dinesh, Director (PSS), MCSD, GSI thanked all the members and participants of the meeting for their valuable contributions. He said that a lot of fruitful and constructive discussions and deliberations were there which were constructive and some may be critical.	

	<p>He expressed that all suggestions will be incorporated. He specified that collaborative projects are the main outcome of the CGPB meeting and that timeline for proposals is till the end of September. He expressed sincere thanks individually to all members, offices within and outside GSI and operational units who have attended through video conferencing.</p> <p>He also thanked all the officers of MCSD, Mangaluru for their efforts and support in organising the meeting in a befitting manner and arranging facilities for the invited dignitaries. The meeting was ended with thanks to the chairman for conducting the meeting smoothly and effectively.</p>	
--	--	--

LIST OF PARTICIPANTS

S. No	Name	Designation	Organization	Email id	Mobile
1	Shri N Maran	DDG & HOD	MCSD, GSI	maran.namsivayam@gsi.gov.in	8138829344
2	Shri AV Gangadharan	DDG	MCSD, GSI, Kolkata	gangadharan.ainguranveetil@gsi.gov.in	9448529196
3	Shri MK Rao	DDG	MCSD, GSI, Vizag	keshav.mogral@gsi.gov.in	9611661243
4	Shri AC Dinesh	Director (PSS)	MCSD, GSI	dinesh.ayniparambil@gsi.gov.in	
5	Shri S. Sengupta	Director	CGPB Secretariat, GSI, Delhi	siladitya.sengupta@gsi.gov.in	8585089351
6	Shri. Manoj K Singh	Commodore, Navy	Indian Navy, New Delhi	dnom@navy.gov.in	8800591886
7	Shri M.S. Nagar	Chairman (Rtd.)	Indian Rare Earths Ltd	msnagar@gmail.com	9868124694
8	Shri Subhasis Roychoudhuri	Supdtg. Geologist	PSS, GSI, CHQ	subhasis.roychoudhuri@gsi.gov.in	9433380976
9	Dr.T.Kannadasan	CGM/Geology	NLC-Neyveli	tkgsi15@gmail.com	9486264690
10	Shri Abishek T	Scientist-D	NCAOR-Goa	abhishek@ncaor.gov.in	9423319936
11	Dr. Pawan Dewangan	Sr. Scientist	NIO-Goa	pdewangan@nio.org	9423316605
12	Shri T S Shaji	Incharge BSOI	AMD-Trivandrum	tsshaji.amd@gov.in	8547849246
13	Smt Padmashree	I/C Deputy Director	DGM, Karnataka	padmashreemysore@gmail.com	9980951087
14	Dr. V Ranga Rao	Scientist F	NCCR, Chennai	vrrao@nccr.gov.in	9444926720
15	Shri J Rajakumar	Scientist-D	Coastal and Environmental Engineering-NIOT	Rajkumar.niot@gov.in	7667758123
16	Smt.N. Vijayalakshmi	Deputy Director	DGM, TN	advijichennai@gmail.com	866775996

17	Dr Satyavani	Sr. Scientist	NGRI, Hyderabad	satyavani@ngri.res.in	9000181424
18	Dr NM Shareef	Director	MCSD, Mangaluru	shareef.neduvenchery@gsi.gov.in	9448478523
20	Shri G Nagendran	Director	MCSD, Mangaluru	g.nagendran@gsi.gov.in	9444062661
21	Dr Anil Kumar	Director	MCSD, Mangaluru	adukadikkam.kumar@gsi.gov.in	9844882885
23	Shri Anjaneyulu Katari	Director	MCSD, Mangaluru	anjaneyulu.katari@gsi.gov.in	7799291415
22	Dr BK Nandi	Suptdg,Geophysicist	MCSD, Mangaluru	bijay.nandi@gsi.gov.in	7044062193
23	Shri B K Prasanna	Commander	NHO, Dehradun	pachu_vrins@yahoo.com	7830001343
24	Shri. B.K. Murthy	Geologist	DMG, Mangaluru	murthy.bk23@gmail.com	9739261730
25	Dr. V. Ambili*	Director	MCSD, GSI, Visakhapatnam	v.ambli@gsi.gov.in	
26	Shri. Satish Kumar*	Director	MCSD, GSI, Cochin	satish.kumar4@gsi.gov.in	
27	Shri. Subhankar Dutta*	Director	MCSD, GSI, Kolkata	subhankar.dutta@gsi.gov.in	
28	Shri. G.V. Satyanarayana*	Suptdg.Geophysicist	MCSD, GSI, Visakhapatnam	gadepalli.satyanarayana@gsi.gov.in	
29	Shri. Prajid K.	Sr.Chemist	MCSD, GSI, Mangaluru	kprijid@gmail.com	
30	Smt. Priya T.N*	Sr.Geologist	MCSD, GSI, Cochin	t.priya@gsi.gov.in	
31	Smt Princy M Sasi	Sr.Geologist	MCSD, GSI, Chennai	princy.sasi@gsi.gov.in	
32	Shri. Suman Saha*	Geologist	MCSD, GSI, Chennai	suman.saha@gsi.gov.in	
<i>*Attended the meeting through video conference</i>					