

MINUTES OF THE 57th MEETING OF THE KERALA STATE GEOLOGICAL PROGRAMMING BOARD (SGPB) HELD ON 19.10.2020 THROUGH VIDEO CONFERENCE

The video conference commenced at 11.00 hrs. List of participants is appended.

Proceedings:-

57.1.0 The Chairman of SGPB and Principal Secretary to Government (Industries Department) Dr. K. Ellangovan IAS, welcomed all the members to the 57th SGPB meeting. He asked the members to discuss the activities carried out during July 2019 to August 2020 and also discuss the proposed activities for the coming field season. He invited suggestions from the members hoping that the discussions would arrive at logical conclusions. He invited Dr. C. K. Baiju, Member Secretary and Director (i/c), Mining and Geology Dept. to give the welcome address.

57.2.0 In his welcome speech, Dr. C. K. Baiju said that due to the current COVID-19 pandemic situation, we were forced to conduct this year's SGPB meeting through video conference. He said that the mining scenario of the State was facing a dire situation as the Hon'ble National Green Tribunal had stipulated that the mines must be at least 200 m away from residential buildings and inhabited sites. Considering the small areal extent and high population density of the State of Kerala the grant of new mineral concessions, conforming to the NGT order, has come down. The DMF Trust Funds have been initiated in all the districts of Kerala. The State Government has given directions to the district authorities to utilize the DMF funds for combating COVID-19. He stressed the need to give importance to the safety measures to be followed in mines. A culture of prevention rather than a culture of reaction is required in the mining industry in cases of work related accidents. He sought the assistance of all the member scientific organizations to carry out collaborative investigations fully or partially.

57.3.0. The Chairman of SGPB invited comments and

actions taken on the minutes of the 56th meeting of the State Geological Programming Board (SGPB) held on 04.11.2019. Since there were no comments the minutes of the 56th SGPB was approved by the Board. The Chairman then invited the members, to present the review of work done during the period from July 2019 to August 2020 and the proposed programmes for the year 2020-2021.

57.4.0 Dr.Sudhibrata Roy, Deputy Director General, GSI, Kerala State Unit, gave a brief overview of the following works carried out by GSI during the field season 2019-20 and the ongoing field programmes for the year 2020-2021.

1. Specialised thematic mapping.
2. National Geochemical Mapping
3. Mineral investigation for Platinum Group of minerals and Rare earth elements.
4. Landslide investigation in Pathanamthitta, Idukki, Kottayam, Ernakulam, Palakkad, Malappuram, Wayanad and Kannur Districts, Kerala.
5. Geotechnical Evaluation of Power and Water Resources Development Projects in Kerala.

57.4.1. The Chief, Industries and Planning Board asked whether there is a duplication of exploration works done for Bauxite and aluminous laterite conducted by the DMG and GSI, Kerala State Unit. The DMG replied that there is no duplication of work as both the departments interact about the works undertaken.

57.4.2. The Chairman of SGPB asked the GSI, Kerala State Unit whether they can submit a comprehensive report to government pinpointing the vulnerable landslide prone areas and courses of waterways to avoid loss of life in future due to natural disasters. Deputy Director General, GSI, Kerala State Unit replied that post landslide studies were carried out by GSI and the reports were submitted. The Chairman of SGPB opined that the reports of the GSI should be forwarded to Chief Minister's Office. The DMG said that the GSI, Kerala State Unit should forward the report to the State Disaster

Management Authority.

(Action; GSI)

57.4.3. The Chairman of SGPB said that laterite is an important building material in the Northern parts of Kerala. The Mineral concession rules change when laterite is labelled as bauxite, owing to the high content of Alumina in the laterite, leading to a standstill of laterite building stone mining. He sought a solution to the problem. Dr. Mathew Joseph, GSI, Kerala State Unit said that, as a result of the recent studies, it was found that laterite in the Northern parts of Kerala can be used for cement industry and not exactly for metallurgical extraction. Chemical analysis has to be carried out to determine the alumina content before granting mining concessions to a laterite quarry. The Chairman of SGPB asked the opinion of DMG in this regard. DMG replied that chemical analyses have revealed that the alumina content in the samples is more and hence they fall under major mineral category.

57.5.0 Sri.Vinayachandran Narayanan, Central Ground Water Board (CGWB), Kerala Region outlined the progress of works done during the field season 2019-2020 and the annual action plan for 2020-2021. Aquifer mapping and management plan preparation, monitoring of existing groundwater observation wells were carried out during the field season 2019-20. The annual action plan for 2020-21 includes, groundwater regime monitoring and strengthening of groundwater observation well network, hydrological hydrometereological and hydro-chemical studies, aquifer mapping, groundwater exploration, groundwater modelling etc.

57.5.1The Chairman of SGPB asked CGWB, whether they have any report on pollution of groundwater. Sri.

Vinayachandran Narayanan replied that in the Aquifer mapping carried out under the groundwater management programme, quality is a component and that they have identified areas in which groundwater is not conducive to drinking. The report has been uploaded in the website of CGWB and the data has also been handed over to the State Groundwater Department.

57.6.0. Sri. Shaji Sreedharan, Atomic Minerals Directorate for Exploration and Research, reviewed the works done during the field season 2019-2020, which includes exploration and evaluation for heavy mineral bearing beach placer sediments in Kozhikkode and Kannur districts study of sediment characteristics and accretion/ erosion in Shangumukham in Kerala to Pallam in Tamil Nadu and validation of geographic boundary coordinates of 33 Beach Sand Mineral deposits of Kerala. He also informed that the exploration works carried out during 2019-20 would be continued for the field season 2020-21 based on the merit.

57.6.1 The Chairman of SGPB enquired about the mining of BSM deposits to which Sri.Shaji Sreedharan replied that at present only government companies can mine beach sand minerals and that the threshold value of monozite has been reduced to Zero.

57.7.0 The Official from Malabar Cements Ltd. said that they have arranged for the drilling of 10 exploratory boreholes in Pandarathu Limsëtone Mines in Palakkad. The DGPS survey map submitted to the DMG for authentication is awaited so as to be produced before the Regional Controller of Mines, Bangalore. He also informed that the application for the deemed extension of Mining Lease, which is due to expire on October 2023, has been submitted.

(Action:

DMG, MCL)

57.8.0 Shri. Ananda Padmanabhan, Indian Rare Earths Ltd said that they have not carried out any exploration works during the period from July 2019 to August 2020 and have no planned programs for the year 2020-21. IREL have requested for the deemed extension for mining leases in two areas viz., NK Block IV, II & II EE.

(Action: DMG, IREL)

57.8.1 The Chairman of SGPB directed IREL to expedite the procedures for obtaining Environmental Clearance in the Mining Lease areas.

(Action: IREL)

57.9.0 Dr. Sajin Kumar.K.S., University of Kerala before presenting the progress of the geological works of the university, said that although he had suggested launching of a portal exclusively for SGPB member organisations during the 56th SGPB meeting, no action in this regard seems to have been taken. He emphasized that such a portal is essential to avoid duplication and overlapping of works done by the SGPB members. Presenting the works undertaken by the Department of Geology, Kerala University, he said that they have one consultancy programme that is the river sand auditing of Mogral River, Kasargod district. He then went on to explain the various ongoing projects (funded and non funded). Some of the relevant projects are-1) 2018 and 2019 landslide occurrences in Kerala and its land use changes in collaboration with INEP, NRSC and ITC Netherlands, (2) Development of mobile application for landslide prediction, (3) Development of rain fall thresholds for selected landslide prone areas in Kerala. As part of this project 20 rain gauges have been installed in various parts of Idukki district and the rainfall data will be available to the public free of cost. Some of the new projects include, Landslides of Kerala vis-a-vis land use changes, Landslides of Kerala vis-a-vis geomorphic controls and Creation of flood atlas of Kerala.

(Action: DMG)

57.10.0 Dr. Arun Kumar P.R, Scientist, Centre for Water Resources Development and Management, Kozhikkod said that they do not carry out direct geological investigations, but use basic data collected by the GSI and DMG for their water related research projects.

57.11.0 Dr. Anil, Scientist, Kerala State Remote Sensing And Environment Centre, (KSREC), said that the maps for 33 Beach Sand Mineral Deposit blocks have been prepared in collaboration with DMG and AMD and have been sent to AMD for final approval on September 2020.

(Action:
DMG, AMD)

57.12.0 Smt. Anitha Chandran, Superintending hydrogeologist General explained that the state Groundwater Department focuses on sustainable groundwater development including conservation and management. Groundwater investigation and development includes drilling of bore wells and tube wells, pumping test analysis and water quality analysis. The department also carries out various schemes for groundwater conservation and recharge. As part of their project they constructed 40 groundwater recharge pits in Kattakkada, Thiruvananthapuram district.

57.13.0 Shri. Sundar Rajan, Senior Scientist, National Institute for Interdisciplinary Science And Technology(NIIST) explained the studies carried out by NIIST during the review period which includes:-

1. Geo exploration of strategic mineral deposits along Varkala- Kovalam coast in collaboration with DST.
2. Development of spectral library of other strategic minerals in Kerala using remote sensing techniques.
3. Study on heavy metal pollution in sea water and groundwater

57.14.0 The DMG presented the progress of work carried out during 2019-20 and proposed programmes for the year 2020-21.

1. Investigation for China Clay/ Aluminous Laterite in Puravattom block, Iruvalloor block and Koyipra Block II in Kannur district:
2. Collaborative studies with other organizations

Proposed programmes for the year 2020-21

1. Reconnaissance survey for Mineral Investigations.
2. Detailed investigation for Bauxite/ Aluminous Laterite and China clay in Kannur District.
3. Detailed investigation for limestone in the mine area of Malabar Cements, Walayar, Palakkad district
4. Survey for identification of Tile/ Brick clay bearing areas in the State
5. Collaborative studies with other organizations

57.15.0 The official from KMML informed that they have submitted their application for environmental clearance. They have also submitted the DGPS survey report and is awaiting confirmation

(Action: KMML)

57.16.0 The Chairman of SGPB in his concluding remarks emphasized the importance of SGPB. He suggested that SGPB should be conducted twice in a year, preferably in the month of April also. In the wake of natural calamities faced by the State, mapping for (a) natural disasters, (b) contamination of groundwater and (c) mineral deposits should be carried out. He reiterated the importance of launching a portal for SGPB as suggested by Dr.Sajin Kumar to avoid duplication of exploration works carried out by various agencies of SGPB. He stressed the importance of Mining Plans and also suggested that major public sector undertakings like Malabar Cements, IRE and KMML should collaborate with AMD and DMG to draft out a feasible mining policy.

(Action: DMG)

57.16.1. Dr.Sajin Kumar suggested that Indian Meteorological Department should be invited as a member of SGPB as the natural disasters in Kerala occur mainly during

the Monsoon season. The IMD should be requested to provide the rainfall data free of cost. The DMG agreed to invite IMD as a member of SGPB from next year onwards.

(Action: DMG)

5717.0. Sri.M.M Vahab, Geologist, Directorate of Mining and Geology delivered the Vote of Thanks.

The 57th SGPB meeting concluded at 13.00 hours.

LIST OF PARTICIPANTS OF THE 57TH SGPB MEETING HELD ON 19.10.2020

Sl. No.	Name of the Institution	Name and Designation of the officers
1.	Industries (A) Department & Chairman SGPB	Dr. K. Ellangovan IAS Principal Secretary to Government
2.	Geological Survey of India Southern Unit, Kerala, Thiruvananthapuram	1. Shri. Sudhibratha Ray Deputy Director General 2. Shri. Mathew Joseph Director
3.	Federation of Indian Mineral Industries (FIMI), New Delhi	Shri. B. K.Bhatia Joint Secretary General
4.	Department of Geology University of Kerala	Dr. Sajin Kumar K. S. Assistant Professor
5.	State Ground Water Department Thiruvananthapuram	1. Smt. Anitha Chandran Superintending Hydrogeologist (General) 2. Shri. A. G. Gopakumar Senior Hydrogeologist
6.	Central Ground Water Board (CGWB) Kerala, Thiruvananthapuram	1. Shri. Vinayachandran Narayanan Regional Director 2. Dr. V. S. Joji Scientist - D
7.	Indian Rare Earths Limited (IREL) Chavara	Shri. Anantha Padmanabhan Senior Manager (Mining)
8.	Indian Bureau of Mines (IBM) Regional office, Bangalore	Shri. B. K.Bhatia Junior Mining Geologist
9.	Malabar Cements Limited , Walayar Palakkad	1. Shri. Mohammed Ali Managing Director 2. Shri. Jose Thomas Manger (Mines)
10.	Atomic Minerals Directorate for Exploration & Research (AMD) Thiruvananthapuram	Shri. Shaji Sreedharan Officer in Charge
11.	National Institute for Interdisciplinary Science and Technology (NIIST) Thiruvananthapuram	Shri. Sundar Rajan Principal Scientist
12.	Kerala Minerals and Metals Limited (KMML), Chavara	Shri. N. P. Anilkumar Deputy Manager
13.	Centre for Water Resources Development & Management (CWRDM), Kozhikkode	Dr. P. R. Arun Scientist
14.	Kerala State Remote Sensing and Environment Centre, Thiruvananthapuram	Dr. Anil Scientist
15.	Kerala State Planning Board Thiruvananthapuram	Chief, Industries and Infrastructure Division
16.	Department of Mining and Geology	1. Dr. C. K. Baiju Director of Mining and Geology (i/c) 2. Shri. M. M. Vahab Geologist