

## MINUTES OF THE 45<sup>th</sup> MEETING OF THE KERALA STATE GEOLOGICAL PROGRAMMING BOARD

Date: 08.02.2010

Venue: Mini Conference Hall, Government Guest House, Thycaud, Thiruvananthapuram

Time: 11.00 hrs to 12.40 hrs

Present: Separate list appended

### Background:

As per the decision of the Central Geological Programming Board it was decided to hold SGPB meeting twice in a year. The first meeting of the SGPB for the year 2010 (45<sup>th</sup> SGPB) was conducted on 08.02.2010.

### Proceedings:

1.0.The Member Secretary and DMG Sri.C. Vasudeva welcomed the participants to the 45<sup>th</sup> SGPB meeting. In the welcome speech DMG pointed out his concern over the constraints on mining sector in the State of Kerala. He stressed on the need of strengthening of the Department of Mining and Geology. More interactions and co-operations are required among the Act and Rule implementing agencies in the State. More inputs should come from the local bodies. This will help effectively curbing the illicit mineral extraction and transportation.

Further DMG briefed about the important events that took place after the 44<sup>th</sup> SGPB meeting held on 20.07.09

- Department has carried out investigation to assess the sand content in the sediments of Kaliyar moozhi arm of the Aruvikkara Dam selected for desiltation as a pilot work. Similar works have been carried out in Chulliyar Dam. Teams of Geologists and other technical staffs are engaged in similar work at Malampuzha reservoir in Palakkad District.
- Participation of the Department in the Central Geological Programming Board and its sub-committee meetings held at various locations in the country.
- The Department is extending its support to PSUs like M/s.Travancore Cements Ltd., M/s. Kerala Minerals and Metals Ltd., M/s. Kerala Clays and Ceramics Products Ltd. M/s. Indian Rare Earth Ltd., M/s. Malabar Cements Ltd. For their mineral related requirements.
- The Department is in the process of developing a scientific digital database on minor mineral quarries and other baseline data inventories.
- The Technical Committee constituted by the Government to study the safety, environment, M-sand production and boosting of revenue to the Government under the Chairmanship of the Principal Secretary to Government, Industries Department have submitted their report to Government.

- Another Committee constituted under the Chairmanship of the Director of Centre for Earth Science Studies to study various socio-environmental impacts that might arise due to the clay and bauxite mining in various Panchayaths of Kasaragod District have circulated their draft report among the members for the final suggestions and remarks.
- Department has submitted a proposal for implementation of e-governance in the Department to achieve greater transparency in decision making, draft citizen charter, proposals for the amendments of KMMC Rules 1967 and drafting Kerala State illicit mining, transportation and storage rule to Government.
- The Committee constituted for drafting Kerala Mineral Policy is finalizing their document on State Mineral Policy and will be submitted to Government soon.

Shri. Alkesh Kumar Sharma I.A.S., Secretary, Industries (IP) chaired the 45<sup>th</sup> SGPB meeting and in his presidential address he expressed that the mining is one of the core sector required for industrial development which needs the focus of the State in order to make best use of the mineral resources. He pointed out the following four major issues that require immediate attention.

1. Availability of construction grade sand.
2. Mineral extraction along coastal areas.
3. Mine/quarry safety.
4. Issues of climate change.

He further said that the mineral extraction along coastal areas should be carried out without wasting supplementary minerals and also without affecting the beach. Regarding the safety of mines he is of the opinion that care should be taken to safeguard the life of people working in the quarry and residing in near by areas. In view of the Kyoto Protocol and Copenhagen Summit steps need to be taken by the mining sector to reduce the carbon emissions.

2.0. After the presidential address, the Chairman invited comments on the minutes of the 44<sup>th</sup> SGPB meeting and in absence of oral or written comments the minutes were confirmed.

3.0. Review of the work done by the different organizations during the year 2009-10 was explained by the representatives of the concerned organizations.

3.1. DMG briefed about the review of activities carried out by the Department during April to December 2009. The important items were China clay investigation in Kollam, Kannur and Kasaragod districts, survey for minor mineral quarries in Kottayam and Alappuzha districts, Assessment of sand in the palaeo channels of Pamba, Periyar and Bharathapuzha rivers, EIA study of the china clay mining areas of Mangalapuram, Thonnakkal and Sasthavattom in Thiruvananthapuram district, investigation of lime shell in Vembanad lake. Assessment of sand in the reservoir area of Aruvikkara dam, Thiruvananthapuram District.

Reconnaissance survey for tile/brick clay, KSCSTE funded digital database projects, activities of Chemical and Gem testing Laboratory etc were also explained by DMG.

Chairman enquired on the sand availability in the palaeochannels. DMG replied that after the feasibility study to carry out the auger drilling on the site recommended by the GSI the maps prepared as part of the study has been returned back for incorporating certain corrections.

The MD, Kerala water authority replying to the query on sand recovery at Aruvikkara said that the results of study conducted by the Department of Mining and Geology tallies with the actual sand extracted.

The MD, Kerala Water Authority enquired whether the quarry mapping data will be made available by the DMG. In reply DMG informed that on completion of the quarry mapping the unclassified data shall be made available on request.

3.2. The Director, GSI (Kerala unit) gave a summary of the work carried out during the last field season:

- Creation of Theme-based database is under progress
- Identification of alternate sand resources in Vamanapuram, Neyyar, Karamana, Kallada and Ittikara rivers of Thiruvananthapuram and Kollam districts is in its second and final year of execution.
- Thematic studies of the Wynad Supracrustals and associated rocks near the western termination of the Moyar Shear Zone in the Sultan Bathery, Wynad district.
- Regional Geochemical mapping of the southern part of the Precambrian Peninsular shields in parts of Malappuram, Palakkad, Thrissur and Ernakulam districts, Kerala toposheets B/7 and
- Preliminary exploration for gold in Narasimukku, Attappadi valley, Palakkad district.

The new items included in the current field season were also mentioned.

The Chairman directed DMG to convene a meeting with GSI in the next two months and chalk out an action plan for conducting a joint field work regarding the sand assessment in the palaeochannels.

Further he invited the user agencies to submit their requirements to be obtained from GSI. DMG informed the chairman that exploration for gold in Maruda in Malappuram district was pending for clearance from MoEF. M/s.MECL expressed their willingness to carryout the exploration for gold in Attappady area apart from the Maruda in Malappuram district.

3.3. Director of GSI (Marine Wing) briefed out on the work done off Kerala coast during August to December 2009.

- Preliminary evaluation of construction grade sand resources in the area beyond territorial waters off Kollam, Ponnani and Chavakkad, Kerala

He briefed the annual programme for the field season 2009-10.

Sri.J.Ansari, Scientis, NIIST said that they have conducted study on desalination of tailings sample collected from IRE. He also informed that the results prove that the output is suitable for construction purposes. The Chairman asked NIIST to forward the findings to the Government. DMG requested NIIST to take up similar studies by taking samples from off coast, Kerala where GSI Marine wing is conducting investigations.

3.3. Shri. D.S. Thampi, Regional Director, CGWB outlined the works carried out during 2009-10 in the Kerala Region which includes district Groundwater management studies, ground water exploration studies, geophysical studies, hydro chemical studies, Participatory monitoring, hydrology project, Artificial recharge schemes and Farmer's Participation Research Action Programme(FPARP).

The MD, Kerala Water Authority suggested that the reports of the CGWB be shared with KWA. The DMG requested the CGWB to undertake a study on the ground water conditions of the cluster quarry/mine areas of the State. Sri Thampi replied that periodic monitoring of the water conditions of the area should be done and the work can be taken up shortly. Further he requested DMG to forward the required details.

3.4. The Director, CESS briefed on the activities carried out during 2009-10 which includes, studies on laterite, a project on Tectonothermal history of the Kerala Khondalite Belt, Landslide investigations, Preparation of district level Natural Hazard Zonation Maps for Kerala, Earthquake monitoring and Monitoring crustal movements using GPSs, Rainwater harvesting and Groundwater recharge in Chadayamangalam block. DMG suggested that regarding quoting of the relevant rules etc, CESS should consult the DMG before the finalization of reports related to Minor Mineral Quarries and other mining related aspects. The chairman opined that CESS and GSI should share the data on landslide studies in order to avoid duplication of data.

3.5. The progress of the work done during 21.3.09 to 20-12.09 by IBM includes MCDR & Mining Plan/Mining Scheme Inspections, Ministry references, Grant of recognition of qualified persons to prepare Mining Plans/Mining Scheme as per Rule 22C, of MCR 1960, Scrutiny and approval of Mining Plans and Mining Schemes. The Agenda for inclusion in the meeting was also outlined. During the year 2009-10 a total of 25 MCDR/Mining Plan/Mining Scheme are proposed to be undertaken in the Kerala state. The list of RQP will be forwarded by IBM to DMG on request. DMG requested IBM to conduct periodical inspections of mines with regard to the violation of provisions of MCDR.

Regarding the mining of bauxite, DMG said that an Expert Committee has been constituted and the findings of the committee shall soon be submitted to the Government. IBM requested DMG that the quarterly returns should be submitted in time.

3.6. Sri J Ansari, Scientist, NIIST briefed on the progress of the works done by NIIST. A project on value addition of Indian china clay and utilization of channel waste was done for M/s KCCP Ltd. Pappinisseri. A new project proposal has been submitted to the KSCSTE entitles "Development of eco-friendly process and flow-sheet development for Kannur and Kasaragod china clays". A project proposal for the value addition of Ramapuram (Kannur) and Kommangal Padavu (Kasaragod) has been submitted to DST,GOI. The Regional Environmental Impact of Clay mining, Mangalapuram, Thiruvananthapuram district is an ongoing project, being carried out for the Government of Kerala. Research for controlling mine road dust using calcium chloride is in progress and test trails are carried out at Dakshin Clays. The Regional Director, CGWB said that the effects of calcium chloride on groundwater should be taken into consideration before initiating the work.

3.7. Sri. K. Balachandran, Officer-in-charge of AMD outlined the achievements of the Kerala chapter during 2009-10 which includes petromineralogical analyses of Kakkazham-Alappuzha district and Chackai-Karimanal-Kazhakkootam tract, field exploration in Nileswaram and Chandragiri river mouths, coastal tract, Kasaragod district.

3.8. The Chief Engineer (Dam Safety) opined that the silt obtained from the desiltation of dams is rich in organic materials and can be used as a substitute for fertilizers. The chairman enquired whether it is implementable. The Chief Engineer also said that studies are in progress for developing a grade of cement suitable for using in combination with the sand obtained as a result of desiltation.

4.0. Concluding the session chairman said that DMG, CESS, GSI and CGWB should have regular interactions in order to make use of the data collected. He said that the Central Geological Programming Board Meeting was being held on 11<sup>th</sup> and 12<sup>th</sup> of February 2010, and if any issues to be raised in the meeting, it should be informed to the DMG.

The meeting concluded at 12.40hrs.

Minutes approved by

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**ALKESH KUMAR SHARMA, IAS**  
SECRETARY, INDUSTRIES (IP)

## Annexure

### List of Participants

1. Sri. Alkesh Kumar Sharma, IAS, Secretary to Government of Kerala, Industries (IP) Department (Chairman, SGPB)
2. Sri. C. Vasudeva, Director of Mining and Geology, Thiruvananthapuram (Member Secretary and Convener, SGPB).
3. Sri. Geogi George, Assistant General Manager, KSIDC Ltd.
4. Sri.Karappankutty.K.K., Chief Engineer (Dam Safety), KSEB, Pattom.
5. Sri.Subramanian Padikkal, M.D., KCCP Ltd., Kannur.
6. Sri.Anakai Balakrishnan, AGM (P&A), KCCP Ltd., Kannur
7. Sri. Devikanandan, CMD, Kerala Ceramics Ltd., Kundara.
8. Sri.J.Ansari, Scientist, NIIST-CSIR, Trivandrum.
9. Sri.K.Balachandran, Officer In-charge, AMD/Department of Atomic Energy, Poojappura, Thiruvananthapuram.
10. Sri.V.D.Jalnapurkar, Sr.Mining Geologist, Indian Bureau of Mines, Bangalore.
11. Sri.M.Koshy John, Senior Geologist, GSI, Kerala Unit, Thiruvananthapuram.
12. Sri.Sunil George, Deputy Manager-Comm., The Kerala Ceramics Ltd., Kundara.
13. Sri.P.K.Bharathan, Consultant Geologist, KCCP Ltd., Kannur.
14. Sri.T.S.Anitha Shyam, Scientis-C, CGWB, Thiruvananthapuram.
15. Sri.Saneer.C.P., Jr.Marketing Officer/Laison Officer, Malabar Cements Ltd., Palakkad.
16. Sri.A.G.Gopakumar, Hydrogeologist, Groundwater Department, Thiruvananthapuram.
17. Sri.M.T.Jothi Prabha, Assistant Manager, TCL, Nattakom, Kottayam.
18. Smt.Susan Jacob, MD, Kerala Water Authority, Thiruvananthapuram.
19. Sri.Vargese James, KHRI, P.W.D., Thiruvananthapuram.
20. Sri.A.V.S.R.Gupta, Manager (Geo), MECL, Hyderabad.
21. Dr.T.Radhakrishna, Director In-charge, CESS, Thiruvananthapuram.
22. Sri.D.S.Thambi, Regional Director, CGWB, Thiruvananthapuram.

23. Sri.Shafeq Ahammed, Director, GSI, Kerala Unit, Thiruvananthapuram.
24. Sri.S.Singavenjam, GSI, Kerala Unit, Thiruvananthapuram.
25. Sri.M.Suresh Chandran, Director, GSI (Marine and Coastal Survey Division), Mangalore.