

## **MINUTES OF THE 46<sup>th</sup> MEETING OF THE KERALA STATE GEOLOGICAL PROGRAMMING BOARD**

Date : 15.07.2010  
Venue : Banquet Hall, Government Guest House, Thycaud,  
Thiruvananthapuram  
Time : 11.00 am to 1.15 pm  
Participants: Separate list appended

### **Background**

As per the decision of the Central Geological Programming Board it was decided to hold SGPB meetings 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. The second and 46<sup>th</sup> SGPB meeting was held on 15.07.2010.

### **Proceedings**

The Member Secretary and Director of Mining & Geology, Sri. T.O. Sooraj IAS welcomed the participants of the 46<sup>th</sup> SGPB meeting. He informed the gathering that the Chairman, SGPB & Secretary to Government, Industries (IP) department was out of station and hence would not preside over the meeting.

In his welcome speech, DMG pointed out that the mining and quarrying scenario in the state was highly controversial. In the context of mining and environmental impacts of mining, there was a constant conflict between the needs of the present generation and the rights of the future generation. The ecosystem had to be protected, but at the same time, requirements of public and the interests of workers in the mining/quarrying sector should be taken care of. He stressed the importance of more interactions and inputs from local bodies in the implementation of mining laws, especially in curbing illicit mining and illegal transportation of minerals.

After the welcome speech DMG invited comments on the minutes of the 45<sup>th</sup> SGPB meeting and in the absence of verbal or written comments the minutes were approved.

Further Sri C. Balaraman, Deputy Director of the department, presented the exploration work carried out by the Department of Mining &

Geology during the period from April 2009 to June 2010. He summarized the total revenue collection of the department during the period.

The major exploration activities of the department include:

- Investigation for china clay in Kasargod , Kannur and Kollam districts
- Assessment of sand in palaeo-channels of Bharathapuzha, Pamba and Periyar rivers based on GSI report
- Survey of minor mineral quarries in Kottayam, Alappuzha and Malappuram districts
- Survey of quarry clusters suitable for M-sand production in Thiruvananthapuram district
- Investigation for lime shell deposits in Vembanad lake
- Kerala State Council for Science, Technology and Environment funded project
- Assessment of sand, in reservoir areas of Aruvikkara, Chulliyar and Malampuzha dams, Kulathupuzha forest range and Menamkulam, Thiruvananthapuram

Sri C. Balaraman also commented on the activities of the GIS, Chemical and Mineralogy & Gem Testing Laboratories of the department and the various technical committee reports prepared by the department.

The proposed programmes of the department for the year 2010 – 11 include:

- Identification of bauxite /aluminous laterite and china clay in Kasargod, Kannur and Kollam districts
- Minor mineral quarry mapping in Malappuram
- A repository of mineral database of Kottayam, Alappuzha and Malappuram districts

The meeting proceeded to review the work done by various organizations.

MECL – Sri A.V.S.R Gupta, Manager of MECL presented the ongoing exploration activities for, gold in Maruda, limestone in Walayar and mineral sand.

DMG commented that the Government had declined permission for the mining of Maruda Gold. Sri Gupta replied that though DFO had given a favourable report, the Government had refused to grant permission for mining. DMG suggested that SGPB could take the matter to government for reconsideration. The participants approved the suggestion. Sri. V.D. Jalnapurkar, Sr. Mining Geologist of IBM, Bangalore asked whether MECL had undertaken any mining activity in Maruda to which Sri. Gupta replied that two exploratory pits were dug just for sampling and mining was not commenced.

**GSI** – Sri. Shafeeq Ahmed, Director, GSI, Kerala Unit presented the work carried out by GSI between January and June 2010.

- Structural and stratigraphic studies in Malappuram district
- Geochemical mapping of parts of Kozhikode and Malappuram districts
- Preliminary exploration for PGE mineralization in areas of Wynad district
- Identification of alternate sand resources in Pathanamthitta, Alappuzha, Kottayam and Ernakulam districts
- Landslide studies

The Director also briefed the proposed field program for 2010-11.

DMG enquired whether the GSI had any suggestions in order to prevent landslides and the precautions to be taken by public and government in landslide prone areas. Sri. Shafeeq Ahmed replied that some landslides could be prevented. Various data on landslides available with GSI and other organizations/departments should be incorporated under SGPB. DMG opined that such a consolidated report could be forwarded to government.

Sri. Radhakrishnan, Sr. Geologist, Dept. of Mining and Geology opined that due to the lack of inventory for landslide prone areas, many difficulties arose during the grant of mineral concessions in the state. GSI agreed on providing the data available with them. Further, Sri. Radhakrishnan enquired whether

the GSI could recommend any palaeo-channel area suitable for sand mining based on the sand assessment studies carried out by them in palaeo-channels. Sri. Anilkumar, Sr. Geologist, GSI replied that though several sand repositories were available, mining of sand from them were difficult due to protests from local people and sand mafia. He opined that an integrated approach by the concerned departments might help to solve the myriad problems engulfing sand mining in the state.

Sri. John Mathai, Scientist F, Geosciences Division, Centre for Earth Science Studies (CESS), informed that CESS had prepared district level landslide hazard zonation maps which were accessible to any department. He also opined that in order to enhance the capacity of reservoirs, priority should be given to desiltation and not sand mining. Both sand and silt obtained by the desiltation of reservoirs could be used for industrial purposes.

**GSI, Marine and Coastal Survey, Mangalore** – Sri. M. Suresh Chandran, Superintending Geologist, GSI, Mangalore, presented the four investigations carried out during the period from January to June 2010.

- Search for phosphatic sediments off Kollam
- Placer mineral resource evaluation off Paravur, Kollam
- Parametric survey in the shelf area off Thiruvananthapuram – Kolachal
- Evaluation of sand resources off Alappuzha

Work proposed for 2010 – 2011 include evaluation of relict sand off Cherthala and parametric survey in the shelf area off Vizhinjam – Kanyakumari, Kerala & Tamil Nadu Coast

In the discussion that followed, Sri. M. Suresh Chandran opined that the feasibility of marine sand for construction purposes could be studied only with the help of an engineering agency. DMG agreed to suggest such an agency with expertise in this area.

Sri. V.G.K. Prasad, GM (Production), IRE, Kollam and Sri. Job Cherian, Mines Manager KMML, informed that they were facing a shortage of raw

materials. They requested the GSI, Marine Wing to help them by providing needful data regarding the mineral sand reserves in sea, estuary and lake beds to overcome the crisis. Sri. M. Suresh Chandran invited IRE and KMML for a joint venture in this regard along with AMD.

**GSI, Marine and Coastal Survey, Kochi** – Sri. R. Jayakumar, Director, GSI, Kochi, presented the highlights of the geological studies conducted in the Munambam Harbour area located at Periyar river mouth. This work was undertaken for the Department of Harbour Engineering, Government of Kerala.

**KCCP, Kannur** – Sri. Anakai Balakrishnan, MD, KCCP Ltd., informed about their work progress up to June 2010 and proposed programme for 2010 – 11. He reported that though good quality clay was available at Kommangala Padavu area in Kasargod district, mining might not be possible as the area had been earmarked for KINFRA Park.

In this regard DMG said that the matter could be discussed with the Industries Minister and sorted out.

**IBM, Bangalore** – Sri V.D. Jalnapurkar, Sr. Mining Geologist, IBM, briefed the work done by IBM in Kerala State during the period from December 2009 to June 2010.

Sri. V. D. Jalnapurkar sought the clarification of the department in several issues regarding mining plans/scheme of mining in the state of Kerala. DMG assured him that hereafter each approved mining plan would be forwarded to IBM, Bangalore by registered post. Sri Jalnapurkar remarked that if the circular of IBM, describing the regulations to be followed while approving a mining plan, seemed to be obscure to the concerned people, a training program could be arranged. Regarding lease period, Sri. T. Rajendran, ADMG clarified that at present the lease period granted was not less than 5 years. Also the list of working/nonworking quarries in the state

shall be submitted to IBM, Bangalore after updating. Sri. Radhakrishnan, Sr. Geologist clarified that the action taken by the state government, in the proposal for land acquisition for Techno Park, Thiruvananthapuram in china clay bearing area, was pending before the honourable High Court of Kerala. In reply to the query of Sri. V. D. Jalnapurkar, Sri. Balakrishnan, KCCP, Kannur informed that the mining plan for Karindalam laterite mine was approved by Sri. C. Vasudeva, former DMG. ADMG replied that the matter had to be verified.

Sri. Radhakrishnan, Sr. Geologist enquired about the fund for the computerization of mining tenement registry system of Kerala which had to be completed before March 31<sup>st</sup> 2011. IBM agreed to take up the matter.

**CGWB** – Sri V. Kunhambu, presented the progress and annual action programme for 2010 – 11 of CGWB. The important works of CGWB include:

- Identification of potential groundwater areas in Pathanamthitta
- Rain harvesting studies, especially in Kasargod
- Studies on fluoride concentration in groundwater

Sri. V. Kunhambu requested the GSI to provide microlevel maps and the data available to facilitate the delineation of potential groundwater areas.

**Department of Geology, University of Kerala** – Sri. S.N. Kumar, Lecturer in Geology, Kariavattom gave the following remarks:

- Field training of one to two weeks should be given by GSI to the post graduate students in Geology
- New recruits of DMG can be trained in the full fledged petrological and mineralogical laboratories of the Department of Geology, Kariavattom
- Waste materials generated from the demolition of old buildings could be an alternate source of sand

In reply Sri. Shafeeq Ahmed, GSI said that the GSI had a training institute in Hyderabad and all details were available on the GSI website.

**AMD** – Sri. K. Balachandran, Officer-in-charge, AMD briefed on the work done in beach placers of Nileswaram – Valapatnam tract. Their ongoing projects included zircon and monazite characterization in the area between Azhikode and Ponnani.

Sri. Radhakrishnan, Sr. Geologist informed the gathering that CGPB subcommittee was to be held on 26<sup>th</sup> July 2010 at Jaipur. DMG remarked that organizations like KCCP, if interested in nonferrous bauxite and laterite mining, should submit their proposals before 22<sup>nd</sup> July 2010 so that Sri. Radhakrishnan could present them before the subcommittee.

Sri. Radhakrishnan, Sr. Geologist then enquired whether any technology existed for distinguishing river sand from ordinary sand. A discussion followed after which DMG entrusted NIIST to come up with a solution.

**CESS** – Sri John Mathai, Geosciences Division explained the various investigative and research works carried out by CESS which include:

- Structural dynamics of Kerala khondalite Belt
- Source for heat producing elements
- Palaeomagnetism of mafic rocks
- Laterite characterization
- Preparation of natural hazard zonation maps up to village level
- Water shed related programme
- Geospatial survey using GIS & GPS in Munnar to solve the current problems in the area

Sri. V.G.K. Prasad, GM (Production), IRE, Kollam complained about the illegal transportation of heavy mineral sand from Chavara, Kollam. DMG replied that the department had already taken up the matter. As a follow up action the District Collector and SP, Kollam shall be requested to take adequate measures to control the menace.

DMG concluded with the following remarks:

- Every study in the mining sector should focus on environment degradation process also
- The study reports beneficial to the public should be readily communicated to the concerned departments
- Industrial organizations like KCCP, KMML etc. should constantly interact with scientific research institutions like GSI, AMD and CESS
- University curriculum should be revised to include mining laws. Emphasis should be given to impart field training to students. Also research institutions should support students to make them aware of the various developmental activities in the concerned field.

Sri. Sundaram, Deputy Director, Department of Mining and Geology delivered the vote of thanks.

The meeting concluded at 1.15 pm.

Minutes approved by

Sd-

**T.O. SOORAJ, IAS**  
**DIRECTOR OF MINING & GEOLOGY**