

**MINUTES OF THE 53rd MEETING OF THE KERALA STATE GEOLOGICAL
PROGRAMMING BOARD (SGPB)**

Date : 5th August 2016
Venue : Banquet Hall, Government Guest House, Thycaud,
Thiruvananthapuram
Time : 10.30 hrs to 14.00 hrs
Participants : Separate list appended

Proceedings:-

53.1.0 Shri. T.K. Ramakrishnan, Member Secretary of SGPB and Director of Mining and Geology (i/c) welcomed Shri. Paul Antony, IAS, Chairman of SGPB & Additional Chief Secretary to Government, Department of Power and Industries who had consented to chair the meeting and other esteemed members to the 53rd meeting of State Geological Programming Board. The Member Secretary briefly explained the history of SGPB and importance of board meetings. He highlighted the activities of the Department of Mining and Geology and gave an overview of mining scenario in the State. He also mentioned that Government of India had requested State Governments to adopt auctioning of leases for minor minerals also. He requested the Chairman to address the gathering.

53.2.0 Shri. Paul Antony, IAS after giving a self-introduction, requested the members to introduce themselves. He informed that after going through the previous minutes, he understood that there was huge potential for mining of off-shore sand in Kerala. He appreciated the efforts taken by the Department of Mining and Geology in implementing e-Governance project and pointed out that introduction of e-Pass would reduce the misuse of manual passes. He requested the geological fraternity to present the work carried out during the previous year and made an appeal to carry out more studies for the welfare of the State.

53.3.0 Shri. Nazar Ahamed, Senior Geologist, Directorate of Mining and Geology, requested the members to confirm the minutes of the previous meeting held on 20th July 2015. Since there were no comments the Chairman informed that the minutes of the 52nd SGPB has been approved. Shri. Nazar Ahamed, Senior Geologist invited all the members, to present the review of work done during the period from June 2015 to June 2016 and the proposed programs for the year 2016-17.

53.4.0 Shri. C. Thanavelu, Director, GSI, Kerala State Unit presented the projects taken up by GSI during the field season 2015-16 which include Specialized Thematic Mapping, mineral investigation programmes, landslide investigations and engineering geology (geotechnical evaluation of projects). He also briefed the proposed programme for the year 2016-17 which include Specialized Thematic Mapping in Palakkad, Malappuram and Thrissur districts, mineral investigation programmes in Kozhikode, Malappuram, Wayanad and Palakkad districts, land slide investigations in Kozhikode, Wayanad, Kannur, Malappuram, Palakkad, Ernakulam, Pathanamthitta and Kollam districts and engineering geology (geotechnical evaluation of water resources development projects in Kerala).

53.4.1. Chairman requested KSIDC to take note of the economically viable deposits identified by GSI and enquired whether such reports are available in the GSI's web portal.

[Action KSIDC]

53.5.0. Shri. Jayaprakash. C, Director, GSI, Marine & Coastal Surveys, Kochi presented the findings of off shore sand investigation carried out by Marine & Coastal Surveys Division off Kerala coast. He illustrated the sand occurrences off Kerala coast with the help of maps and said that huge quantities of sand resources are reported off the Kerala coast which can sustain the construction industry of Kerala for next 100 years at the rate of production of 25 million tons per year. Shri. Jayaprakash also informed the Chairman that the GSI possess technical reports on offshore sand and GSI is willing to provide it to the State, if a request is made to the Director General of GSI, Kolkatta.

53.5.1. The Chairman appreciated the work carried out and the presentation and informed that Government would take further follow up action in this regard.

[Action DMG]

53.6.0. Shri. Jayaprakash, Director, GSI, Marine & Coastal Surveys, Kochi presented the progress of field programmes under taken up during the period from June 2015 to July 2016. He informed that as part of the field season programme for the year 2015-2016, Operation West Coast -11, GSI, Cochin has taken up and completed three projects namely SD-267, SD-268 and item no. 100. Shri Jayaprakash gave an overview of the proposed programme for the year 2016-17 which include i) Exploration of Mn micronodules along with study of morphotectonic evolution of Lakshadweep Sea and its significance on Mn nodule growth within EEZ, west of Lakshadweep, Arabian Sea, ii) Preliminary investigation for REE and Gold occurrences in the offshore area between Ponnani and Beypore and iii) Evolution of Heavy Mineral resources in marine sediments off Trivandrum – Kazhakuttam, Kerala.

53.6.1. Chairman enquired about the coastal protection measures to be undertaken while dredging of sand. Shri Jayaprakash explained that the sand dredged should be nourished with the same type of material and artificial draining of the back wash should be enabled.

53.6.2. Shri. C. Thanavelu, Director, GSI, SU Kerala, added that if Government desires GSI is willing to take up any type of technical study on written request by Government.

53.6.3. Chairman noted this point and informed that the Government will discuss this subject in detail at a later point of time.

53.7.0. Shri Jayaprakash, Director, Marine & Coastal Survey Division, Kochi presented the works carried out by Marine & Coastal surveys Division Mangalore on behalf of the Director M&CSD Mangalore during the review period. The work carried out by the Marine & Coastal Survey Division of Geological Survey of India in the offshore area of Kerala Coast during June 2015 to June 2016 include Cruises undertaken in territorial waters and coastal & near shore items were presented. He also presented the proposed cruise programme for the year 2016-17 i.e., evaluation of heavy mineral resources in marine sediments off Anjengo, Trivandrum district.

53.7.1. Shri. K. Balachandran, Officer –in-Charge, AMD enquired about the mineralogy of the off shore sand sediments in Kodungalloor area and Shri. Jayaprakash, replied in detail about the presence of heavy minerals, such as ilmenite, rutile, and leucoxene etc. in that area.

53.7.2. Shri. Ansari J., Sr. Principal Scientist, NIIST informed that in NIIST-CSIR laboratory conducted test on washed sand samples collected from IRE Chavara Ltd., and established that the offshore sand is as good as construction grade sand.

53.8.0. Dr. Chandra Prakash Dubey, Geo-physicist, NCESS presented the progress of the research activities during the period June-2015 to June-2016.

53.8.1. Shri. Thanavelu, Director, GSI opined that GSI is also carrying REE studies and hence NCESS may inform GSI before commencing any work on REE to avoid duplication.

[Action NCESS, GSI]

53.8.2. Shri. C. P. Dubey, Geophysicist replied that NCESS would interact with GSI and finalise the programme before commencement of work.

53.8.3. Chairman also agreed with this suggestion and informed all agencies to co-ordinate each other to avoid overlapping of field programmes.

53.9.0 Shri. R. Saravanabhavan, Senior Research Officer, NITI Aayog pointed out that Kerala is well known for its rich potential for china clay and beach sand minerals like ilmenite, rutile, zircon, garnet, sillimanite, leucoxene and monazite. He added that Kerala produces about 15% of the Kaolin that is produced in India and is the 3rd largest producer after Gujarat and Rajasthan. He informed that during 2015-16, many principal mineral producing states showed a decline in value of mineral production and added that Kerala is one among the 7 States which showed increase in value of mineral production. He informed that NITI Aayog had constituted an Expert Committee to evolve a strategy for self-reliance in critical strategic resource of Rare Earths and added that the strategy would focus on individual Rare Earth Metals from mineral exploration to manufacturing end products. He added that mining of such minerals contributes to the success of Make in India programme of Government of India. He briefly explained about the 5 working groups formed under the expert committee to deal with various themes such as resource identification, demand identification, process technology identification, regulatory mechanism of illegal mining and overseas and private sector investigation. He pointed out that since rare earth elements plays a vital role in near future and since Kerala has rich potential of rare earth minerals like Monazite, it is high time that Kerala should gear up for the exploration and exploitation of such minerals. He added that Department of Mining and Geology could collaborate with AMD and GSI for this study. He also pointed out the possibility of using fly ash generated in thermal power plants as an alternative to river sand in construction sector. He assured the gathering that NITI Aayog would extend full co-operation and support for the development proposal put forth by Department of Mining and Geology.

[Action DMG, GSI, AMD, All SGPB Members]

53.10.0. Dr. V. Kunhambu, Regional Director, presented the activities and achievements of Central Ground Water Board, Kerala region during the review period and also presented the proposed programmes for the year 2016-17 i) Aquifer mapping ii) Hydrological information and parameters on Ground water recharge, iii) Generation of Hydrogeological data for preparation of Hydrogeological Maps in 1:50000 scale, iv) Generation of water quality parameters, v) Data integration and preparation of Aquifer map on 1:50000 scale vi) Monitoring water levels, vii) Ground water resource Assessment, Regulation & Technical assistance to Government organization, viii) Preparation of report and information & Dissemination, ix) Ground water Regulation/Awareness/Workshop, x) Demonstrative Artificial Recharge Projects, xi) Proposal for specific R&D studies xi) Technical Assistance to Government Organisations, xii) Training Programme under RGI, xiii) Jala Kranti Abhyan Activities.

53.11.0. Shri. K. Chatterjee, Junior Mining Geologist briefed the progress of work carried out by IBM, during the review period and presented the proposed programmes for the year 2016-17 which include the MCDR/MP/SOM inspections of major minerals as per the proposed annual programme.

53.12.0 Shri. K. Balachandran, Officer in-charge, AMD explained about the exploration work carried out by AMD during the review period. He further said that sample analysis and mineralogical studies of samples from various mining lease blocks of IREL at Chavara will be taken up during the annual programme 2016-17.

53.13.0. Shri. Ansari J., Sr. Principal Scientist, NIIST, explained the various EIA studies carried out by NIIST during the review period.

53.14.0 Shri. A. G. Gopakumar, Sr. Hydrogeologist, presented the progress of the plan schemes carried out during the field season 2015-16 and the proposed programme for the year 2016-17 include Groundwater Investigation and Development, Control and regulation of groundwater, Training of Personnel, Rajiv Gandhi Drinking Water Mission, Conservation of Groundwater and Artificial recharge and National Hydrology Project.

53.15.0. Dr. A. P. Pradeepkumar, Associate Professor and Head of the Department of Geology briefed about the research facilities available in the Department. He pointed out that the Department of Geology would like to collaborate with other agencies for doing research in the field of geology. He also briefed the work proposed to be carried out during 2016-17 include intense research into different terrains of Kerala to pinpoint mineralization especially in terrains around Palghat Cauvery Suture Zone & research on REE deposits.

[Action: DMG, GWD, GSI, CGWB, AMD]

53.16.0. Shri Samson A., Mines Manager (i/c), Kerala Ceramics explained the work carried out by Department of Mining and Geology for Kerala Ceramics Limited during the period under review. He said that as per the request of the Company the mineral exploration and prospecting division of the Department had taken up detailed exploratory drilling programme in the areas bordering the Kanjiracode clay mines, Kulapoika – Punnathadam area, and Kumbalam – Kottappuram area of Kollam taluk, Kollam district. He also requested the

department to continue the investigation for china clay by core drilling in Kumbalam – Kottappuram area in the ensuing field season also.

[Action DMG]

53.17.0. Shri. Jose Thomas, Mines Manager, Malabar Cements Ltd. informed that as per the scheme of mining approved by IBM, the company has to carry out exploration of the limestone deposit as per UNFC guidelines. Accordingly a request was forwarded to the Director Mining & Geology for taking up the exploration programme. He requested the Department to take up the exploration programme in the ensuing field season. With regard to the query on the empanelling of agency for DGPS survey, DMG intimated that Government have already issued orders stating that services of NABET accredited agencies could be utilised for this purpose.

[Action DMG]

53.17.1. Member Secretary and Director Mining and Geology replied that as per the request of Malabar Cements Ltd., officers from the Department had visited the mines several times and held discussion with the company authorities and expressed the willingness to take up the work. But till date a final confirmation letter from the company has not been received. He also requested Shri. Jose Thomas to forward confirmation letter and other details like map showing the area to be explored, no. of bore holes required to be drilled, depth to be drilled, so as to enable the Department to make the proposal for exploratory core drilling.

53.18.0 Shri. Nazar Ahamed, Senior Geologist, DMG presented the progress of work carried out by the department during 2015–16 and also presented the following proposed programmes for the year 2016–17 which includes investigation for China clay & Aluminous Laterite at Ezhumvayal area and Madathattu area of Panappuzha & Kooveri Village in Kannur District; investigation for China clay at Kumbalam-Kottappuram area, Kollam District; investigation for limestone for Malabar Cements, LTD Walayar, Palakkad District; survey for the identification of tile/brick clay bearing areas in the State; need-based mineral investigation and surveys; continuation of Survey for Minor Mineral quarries in Kozhikode District; topographic survey in Eramom, Ulloor, Korom, Vaipyriam, Kannadipoyil, Aravanchal, Karinthadam - Peringome & Perinthatta areas of Kannur District; updation of minor mineral quarry data in connection with Kerala Online Mining Permit Awarding Services (KOMPAS) and collaborative studies with GSI.

53.19.0 Shri. C. K. Baiju Deputy Director, Department of Mining and Geology, delivered the vote of thanks. He duly thanked all participating dignitaries from various organizations for their presence, active participation and valuable deliberations during the meeting.

The 53rd SGPB meeting concluded at 13.30 hours.

Minutes approved by



PAUL ANTONY IAS
Additional Chief Secretary
Power, Industries & Commerce
and Chairman, SGPB

**LIST OF PARTICIPANTS OF THE 53rd SGPB MEETING
HELD ON 5th AUGUST 2016**

Sl. No.	Name of Institution	Name & Designation of the Officers who attended the Meeting
1	NITI Aayog, New Delhi	Shri. R. Saravanabhavan Senior Research Officer
2	Geological Survey of India Southern Unit, Kerala, Thiruvananthapuram	1. Shri. C. Muralidharan Deputy Director General 2. Shri. C. Thanavelu Director 3. Shri. K. R. Pillai Director
3	Geological Survey of India Marine & Coastal Surveys Division, Kochi	Shri. Jayaprakash C. Director
4	KSEB (Civil Construction- South)	Shri. Varghese Samuel, Chief Engineer
5	Kerala Water Authority (KWA) Thiruvananthapuram	Shri. V. Chandrasekharan Chief Engineer
6	Kerala Forest and Wild life Department, Thiruvananthapuram	Shri K. N. Syam Mohanlal Deputy Conservator of Forests
7	National Centre for Earth Science Studies	Dr. C. P. Dubey Scientist
8	Irrigation Design and Research Board (IDRB), Thiruvananthapuram	Shri. K. H. Shamsudeen Director
9	Department of Geology University of Kerala	Dr. A. P. Pradeep Kumar Head of the Department
10	Kerala State Electricity Board (Civil-I&P) (KSEB) Vydyuthi Bhavan, Trivandrum	Shri. Sudhakumari D. Executive Engineer
11	Ground Water Department Thiruvananthapuram	Shri. A. G. Gopakumar, Senior Hydrogeologist
12	Directorate of Industries & Commerce Thiruvananthapuram	Shri. Sureshkumar S. Joint Director
13	Central Ground Water Board, (CGWB), Kerala	1. Shri. V. Kunhambu Regional Director 2. Smt. Anitha Shyam Scientist-D
14	Indian Rare Earths Limited, (IREL), Chavara	Shri. Jameel Ahamed Senior Manager(Mining)
15	Industries Department Government Secretariat	1. Shri. P. K. Gopakumar Under Secretary to Government 2. Shri. Jayachandran K. Section Officer
16	Indian Bureau of Mines (IBM) Regional Office, Bangalore	Shri. K. Chatterjee Junior Mining Geologist
17	Malabar Cements Ltd. Walayar, Palakkad	Shri . Jose Thomas Manager (Mines)
18	Atomic Minerals Directorate for Exploration	Shri. Shri K. Balachandran,

	& Research (AMD), Thiruvananthapuram	Officer in Charge
19	National Institute for interdisciplinary Science and Technology, (NIIST)Thiruvananthapuram	Shri. J. Ansari Senior Principal Scientist
20	Kerala State Industries Development Corporation (KSIDC), Thiruvananthapuram	Shri. Asok Lal G. Deputy General Manager
21	Kerala State Electricity Board (Dam Safety), Vidyuthi Bhavan, Thiruvananthapuram	Shri. Sajish Kumar J. D. Assisitant Executive Engineer
22	KEMDEL, Thiruvananthapuram	Shri. Sabir Shamsudeen
23	Kerala Ceramics, Kundara	Shri. Samson A. Manager (Mines i/c)
24	Kerala Minerals & Metals Limited, Chavara	Shri. N. P. Anilkumar Deputy Manager
25	Department of Mining & Geology	1. Shri. T. K. Ramakrishnam Director (i/c) 2. Shri. C. K. Baiju Deputy Director 3. Smt. Asha Varghese Senior Administrative Officer 4. Shri. Nazar Ahamed Senior Geologist 5. Shri. Thambu Cherian Senior Geologist