

**MINUTES OF THE FIRST MEETING OF THE CGPB SUB-COMMITTEE
GROUP IV ON INDUSTRIAL AND FERTILIZER MINERALS**

The 1st meeting of the CGPB Subcommittee on Group IV on **Industrial and Fertilizer minerals** was held at Geological Survey of India, Central Region, Nagpur on 02.7.2009 under the Chairmanship of Shri. K.K.K. Nair, Dy.D.G, CR and Convener CGPB Group IV. Representatives from various State Directorate of Geology and Mines, IBM, MECL, Ministry of fertilizer New Delhi, GSI- CHQ, CR, SR, ER and Marine Wing participated. The following members were present in the meeting.

1. Shri. K.K.K. Nair, Dy.D.G CR and Convener CGPB Gr IV
2. Shri. M.Mohan, Director and Member Secretary CGPB Secretariat, GSI CR, Nagpur
3. Shri. H.P.Saxena, Dy.D.G, Op AP, Hyderabad
4. D.M. Mohabey, Director C(T) CR Nagpur
5. Shri A. K. Misra, Director, GSI CG Unit, Raipur
6. Dr P. C. Basu, Director (SG) GSI Marine Wing, Kolkata
7. P.B. Sarolkar, Director Op Maharashtra
8. Shri Eshwara, Director OP Maharashtra, Pune
9. Shri A B Sabale, Director Op MP Unit Bhopal
10. K.Sashidharan, Director OP Maharashtra
11. Shri. V. Srinivasan, Director < Bhopal
12. Shri Debasish Roy, Director ER Kolkata
13. Shri G Gonnade. Director GSI CR, Nagpur
14. Shri P. Tarafdar, Geologist (Sr), CHQ Kolkata
15. Shri. Varinder Gupta, Under secretary, Dept Of Fertilizer, New Delhi
16. Shri. H.M. Khyum Ali, Additional Director DMG, Karnataka
17. Shri K Seshagiri Rao, Jt Director, DMG, Andhra Pradesh.
18. Shri. S.K. Sinha, Dy Director Geology, DGM, Jharkhand
19. Shri. Lalit Kumar, Geologist, DGM, Jharkhand
20. Shri. V.S. Sawakhande, Director DGM, Maharashtra
21. S.K. Lagoo, Manager Geology, MECL, Nagpur
22. Shri. M.S. Rao, D.O.D.O, IBM, Nagpur

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23. Shri. A. Majumdar, O.D.O IBM, Nagpur
24. Shri. R. S. Kalamkar, Dy. Director, DGM, Maharashtra
25. Shri. R.R. Meshram, Geologist DGM, Maharashtra

Shri. M.Mohan, Director and Member secretary CGPB Gr IV welcomed all the members.

Shri. K. K. K. Nair, Convener and Dy.D.G CR in his address explained about the functions of the newly reconstituted CGPB Subcommittees and its role on the enrichment of the National mineral wealth. He regretted on the nonparticipations by some of the GSI Regional Offices and DGM of some states. He assured that steps will be made to ensure participation of all members from next meeting onwards. He suggested that the deliberations of the meetings should focus on the **Terms of Reference** of the Subcommittee. He also stressed on the importance of formulating need-based programmes. Commenting on the vast resources of **Industrial and Fertilizer** minerals available in the Territorial Waters and EEZ of India he opined that these resources form the future source for the country. He also requested the State DGM s to come forward with Collaborative programmes with GSI on Group IV minerals in lease free areas in their domain. He said that a **Dossier on Industrial and Fertilizer Minerals** of all the three states within the domain of Central Region is distributed to all members of the Sub Committee in the form of CD. He suggested that other Regions of GSI including Marine Wing would also prepare similar such Dossier on the same theme.

The Member secretary readout the minerals grouped under Industrial and Fertilizer minerals.

The actionable points of the last meeting held in December 2008 at Jaipur, was discussed. As per the last meeting the DGM Rajasthan wanted R&D work to be initiated by IBM on the SMS grade limestone of Jaisalmer district, Rajasthan. Shri Majumdar from IBM informed the house that the work was done at Ajmer Division of IBM and no results have been communicated so far.

This was followed by review of the work done by different agencies. Representative from IBM, MECL, State D.G.M s, Ministry of Fertilizer, GSI CR, CHQ, ER, SR and Marine Wing presented their review.

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Shri Majumdar ODO, IBM stated that IBM doesn't have a Five-year Rolling Plan, as their work is dependent on the feeder agencies. IBM Ajmer Division has carried out 5 investigations on beneficiation of limestone samples from mines owned by Birla Cement Plant. He however, suggested that huge dumps of <10% P₂O₅ belonging to RSMML, which can be beneficiated by IBM.

Action: RSMML and IBM

Shri Lagoo MECL Nagpur presented the review of the work done by MECL. The work being carried out in Jiajuri quartzite for glass sand in Nagaon District, Assam was discussed. He stated that on beneficiation this quartzite can be upgraded to 98.9% SiO₂ suitable for glass making. Regarding five year rolling Plan he informed that two proposals for limestone in Litang Valley, Meghalaya and graphite in Arunachal Pradesh are with Ministry for approval. As there work is mainly of promotional nature other projects can be finalised only if they get any positive report from agencies like GSI or State DG M s.

Shri Khayyum Ali, Additional Director, DGM, Karnataka gave a presentation of the review. During the period 6 items were taken up in the state of Karnataka including, drilling in Bhima Basin for limestone, in Gulbarga district, Melanahalli in Tumkur district, for quartz in Doddalathur in Kollegal taluk Chamaraja Nagar District, feldspar deposits in Matamari and Purthpalli village in Raichur district, investigation for Ornamental stone in Arsikere taluk, Hassan district and Malabagilu taluk of Kolar district were taken up. He requested GSI to take up detailed investigations for Ornamental Stone. Shri M Mohan, Member secretary informed that GSI normally undertakes such type of work only based on the request of sponsoring agency. To which Shri Ali replied that getting sponsorship would be a difficult task.

Shri.K. K. K. Nair, Convener advised Shri Khayyum Ali to discuss the matter with Dy. DG Op. Karnataka and Goa regarding possibilities of any collaborative projects on this matter.

Action: Op Karnataka and Goa and DGM Karnataka.

Shri. S.K. Sinha, Dy Director, DGM Jharkhand presented the review of the work done in the state of Jharkhand. The work of DGM in the state include limestone, graphite, and

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flux grade high Mg ultrabasic and ultramafics. He gave a detailed account of the work done on flux grade high Mg ultrabasic and ultramafics of West Singhbhum, which was well appreciated. He informed that high Mg ultrabasic and ultramafics are in high demand as a replacement for dolomite in steel industry. A total of 36 prospects have been identified in Jharkhand and their potential assessed of which three to four blocks have been allotted on lease to private mine owners. He informed that Steel industry requires a specification of 31-35% MgO, 38-42%-SiO₂, <2% Alumina, <1% Cr₂O₃, 0.15(Max) total Alkali for flux grade ultrabasic and ultramafics.

Shri. Seshagiri Rao, Dy Director, DGM, Andhra Pradesh gave the presentation of the activities of DGM in the state of AP. He informed that no field item as such is being carried out and are mainly engaged in realization of Royalty. He added that the state has realized a revenue of Rupees 1700 Crores from mineral wealth..

Shri, K.K.K. Nair asked the Dy. DG, Op. AP about the collaborative work identified to be carried out with DGM he informed that no response have been received from DGM for carrying out joint work.

Shri Nair advised that both GSI and DGM should sit together and chalk out a programme for such type of work.

Action: GSI Op AP and DGM AP

Shri. Rao also requested GSI to take up work on fertilizer minerals in the Cuddapah basin around Chelima area, which GSI had discontinued few years back due to Naxal insurgency problems. He added that since the ground situation is better now GSI can take up the surveys.

Shri Nair suggested that the matter may be discussed with Dy. D G, Op AP

Action: GSI Op AP and DGM AP.

Shri. Varinder Gupta Under secretary, Dept of Fertiliser, Ministry of Mines informed that though the international price of fertilizer is steadily increasing Govt has kept the MRP of the fertilizer at constant price since 2003. The subsidy amount hence is increasing and Govt is incurring huge amount towards subsidy to farmers to the tune of 100,000 Crores. Hence the Dept has initiated discussions with GSI and other agencies for taking up fresh investigation to augment fertilizer mineral resources of the country to

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meet our requirements. He also requested for more and more private participation in this matter.

Dr P.C. Basu, Director (SG), GSI Marine Wing gave the review of the activities of Marine Wing. He informed that Marine Wing has initiated two items one on East Coast and another West coast covering the territorial waters and Exclusive Economic Zone. Heavy mineral accumulation of sizeable quantity has been identified off Gopalpur in Orissa, Kapaskuddi off Vishakhapatnam, off Ratnagiri, off Kerala (Chavara, Warkala, Vizinjham, Taingapattanam). Lime mud resources have been established off Vishakhapatnam (Pentakota), off Gujarat Coast, off Lakshadweep. Construction quality sand has been identified off Kerala coast on the request of Kerala Govt. Micromanganese nodules have been identified off Lakshadweep analyzing (21-41% Mn, 3000ppm Cu+ Ni+ Co) and phosphatic nodules and granules off Chennai, Pondicherry and Nagapattanam following the course of Palar River.

He concluded his presentation with a suggestion to arrange training programme for young geologists in phosphate investigation particularly in the Cretaceous Miocene basins.

Action: Member Secretary CGPB Committee

Shri Debasish Roy Director, Economic Geology ER presented the review of the work done by Operation West Bengal. The work done in the assessment of apatite resource estimation in Chholari and adjoining areas in Purulia District West Bengal was discussed. Apatite –magnetite bearing pegmatites have been traced analyzing >20% P₂O₅ in the western sector. Work is in progress in the eastern Sector.

To a question on whether any beneficiation has been attempted on this deposit Shri Roy explained that samples will be submitted to IBM. To which IBM has agreed.

Action: Op West Bengal and IBM

Shri A.K. Misra Director (SG) GSI Op CG Unit presented a review of the work done under the Chhattisgarh Unit covering the six Proterozoic basins which includes stromatolitic limestone in Chamaria in Chhattisgarh basin with >5% P₂O₅ content, clay mineral in Indravati basin, (Manganpar, Medipalarea and Bari) which are low grade pottery type. Phosphate investigation is being carried out in Kharkharia Nala section near

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Sambalpur, which has a P₂O₅ content of 0-29%. Out of 238 samples 56 nos analysed >4% P₂O₅. Potash is occurring in the form glauconite in Gunderdehi.

Commenting on the future work proposed Flux grade high Mg ultrabasic and ultramafics occur in Sonakhan belt in Raipur and Mahasamund districts and phosphate in Khantih - Bhagra of Sambalpur area in Durg district will be included. He added that DGM, CG Unit has proposed a programme of glass sands in quartz reef of Kawardha.

Shri. A.B. Sabale, Director GSI Operation MP gave brief multifaceted utility of Zeolite Group of minerals in agro based industries, aqua culture and water purifiers. The zeolites are available from Deccan Traps particularly of Western Maharashtra and are incidental to road metal quarrying. He told that besides their aesthetic value they can be utilized for a variety of purposes in fertilizer industry, as an acid absorbent in medical field and agricultural purposes, radioactive disposal and as an animal feed. He stressed on the need for initiating a mechanism to collect the zeolites from quarry owners.

Shri. H.P.Saxena, Dy.D.G, Op AP in his remarks stressed the need for strengthening the CGPB by more participation of all DGM s.

Shri Tarafdar, Geologist Sr CHQ told that the main problem faced by DGMs is of financial crunch for attending the meetings. He informed that budgetary provisions are being made in GSI to meet such requirements.

Shri P B Sarolkar Director Op Maharashtra suggested that part of the Royalty collected by the state can be used for such purposes.

Shri Majumdar Ore dressing Officer IBM informed that any agency can send minimum of 25 kg samples for beneficiation of their samples to IBM labs.

Shri K.K.K. Nair Convener in his concluding remarks suggested the need for more programmes on fertilizer minerals in potential basins. Areas such as Chelima in Cuddapah basin need to be taken up. He stressed the need for close coordination between members of CGPB to achieve the goals of the CGPB. He assured the members that nonparticipation of the some members would be taken up at appropriate level. He reminded the members to submit the Dossier on Industrial and Fertilizer mineral. So that the same can be sent to each member organization.

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The CGPB committee resolved the following points for action;

1. The DGM s and other organizations to submit Five-year Rolling plan for 2009-10 onwards.
2. The Regional Offices of GSI and the Marine Wing to submit a Dossier on Industrial and Fertilizer Mineral deposits in their domain.
3. Training programmes to be arranged for young geologists for search for new Fertilizer mineral deposits if any, in the Miocene-Cretaceous terrains of the country, which show a conducive environment for phosphate precipitation.
4. To ensure participation from all concerned member states.
5. GSI was requested to commence fertilizer mineral investigations in the Cuddapah basin in the Chelima by D.G.M AP

The meeting concluded with Vote of Thanks proposed by Shri. Seshagiri Rao, Dy Director, DGM, AP.