MEETING REPORT

Geology, genesis and resource analysis of metallic, non-metallic and energy minerals*

The Department of Geology of M.L. Sukhadia University, Udaipur, organized a national seminar on the occasion of the Diamond Jubilee Year of its founding. It was attended by more than 200 delegates from different universities, colleges, and several other mineral sector private/govt organizations. A total of 52 technical papers were contributed and distributed to participants as a pre-seminar volume.

The chief guest at the inauguration on 29 January 2010 was Aparna Arora, Vice Chancellor, Mohanlal Sukhadia University, P. Katara welcomed the delegates. M. S. Shekhawat, the organizing secretary, presented a brief preamble of the seminar.

There were four thematic technical sessions. The first session was on 'Geology, genesis and exploration techniques of energy minerals'. It was chaired by M. K. Pandya and co-chaired by T. K. Biswal (Department of Earth Sciences, IIT, Bombay). The session commenced with the presentation of a keynote paper on 'Conventional techniques of exploration for uranium in India, past and present scenario besides, environmental challenges in India' by C. L. Bhiram (Director, Northern Region, AMD, New Delhi). Eleven papers on various aspects of uranium mineralization including the keynote paper were presented during this session. The second technical session was devoted to 'Geology, controls of mineralization, ore petrology and genesis of metallic minerals'. The session was chaired by P. S. Ranawat (Department of Geology, M.L. Sukhadia University) and co-chaired by M. K. Pandit (Department of Geology, University of Rajasthan, Jaipur). Two keynote papers were presented by C. P. Sisodia (former Dy. Director General, GSI, Western Region, Jaipur) on 'Modern techniques of base-metal exploration in concealed terrain: a case study on the discovery of zinc-lead deposit by systematic and integrated approach in Kayar Area, Ajmer District, Rajasthan' and by H. S. Pandialal (Department of Earth Sciences, IIT, Bombay) on 'Nature of silver mineralization in the Balaria Mines, Zawar Pb-Zn Deposit, Rajasthan, India'. Eleven presentations including two keynote papers were made during this session.

The third technical session was devoted to 'Geology, controls of mineralization, exploration and genesis of non-metallic mineral deposits'. It was chaired by R. R. Patil (Solapur University) and co-chaired by K. N. Singh (Vikram University, Ujjain). Nine papers including a special paper on 'Economic potential of impact craters' by M. S. Sisodia (Jai Narayan Vyas University, Jodhpur) were presented during this session. The fourth technical session was on 'Resource analysis, mining practices, low-grade ore and environmental issues related to mineral sector'. The session was chaired by Pradeep Bhutnagar (Additional Director, Department of Mines and Geology, Government of Rajasthan) and co-chaired by Salil Agrawal (University of Rajasthan, Jaipur). A keynote paper was presented by G. S. Roonwal (InterUniversity Accelerator Centre, New Delhi) on 'Sustainable mining' and a special paper on 'Ore potential of selective Deccan Trap flows from Mangalwada Taluka revealed through river placers' was presented by R. R. Patil. Besides the keynote and special papers, six papers based on the theme were also presented.

The valedictory address was delivered by the chief guest of the function G. S. Roonwal. R. S. Sharma (President, Geoscientists Society of Rajasthan) and Shailendra Dashora (Director, West Zone Cultural Centre, Udaipur) were the Guests of Honour. The vote of thanks was delivered by the co-convener, Vinod Agrawal.

The following suggestions and recommendations were made. (i) There should be a better coordination between field geologists and geoscientists working in different universities and research organizations to identify major research problems pertaining to mineral resources and their solutions. (ii) The government should allocate funds to universities and other research institutions for research and development of mineral sector out of the revenue generated from this sector. (iii) Reserves of known mineral resources that were discovered/explored long ago are fast depleting. In order to meet the indigenous needs and face the challenging global economy, emphasis should be given on exploration to locate new mineral deposits using modern technological facilities. (iv) There is an increasing demand in the energy sector. Therefore, a detailed exploration should be undertaken to locate new deposits of atomic minerals. Similarly, based on the recent discoveries of oil and natural gas in western Rajasthan, a detailed study of sedimentary basins of western Rajasthan as well as Vindhyan basin of the country should be undertaken which will help in further exploring these resources. (v) In light of the competitive global economy, we should prepare to utilize large low-grade ore reserves of various minerals available in different parts of the country. (vi) Suitable suggestions through environmental research on issues related to mineral sector industries should be given to the government for sustainable development of mineral resources.

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