

# R&D Applications for Sustainable Mining

*Dr. Narendra Kumar Nanda,*

Director (Technical), NMDC Limited,  
A Public Sector undertaking under Ministry of Steel, Govt. of India,  
10-3-311/A, Khanij Bhavan,  
Castle Hills, Masab Tank,  
Hyderabad - 500028,  
Telengana, India  
Email: [minsys1960@gmail.com](mailto:minsys1960@gmail.com) ; [nknanda@nmdc.co.in](mailto:nknanda@nmdc.co.in)

## **ABSTRACT**

The Mineral Sector world wide is making steady progress in production, technology and utilization of resources. Mineral as it is bestowed is not unlimited and therefore judicious utilization is the key for progress of the modern world.

In this back drop all progressive organization have established their research centres. Some of them are funded by Government and many are established for the internal requirement of the organisation. The expenditure made by many frontline companies in mineral sector runs to million dollars. Therefore, the outcome of any research is turned to an achievement when it is applied to operation at site, thus harvesting the benefit out of the long research work.

The present world is looking at the climatic changes and the mineral sector is not an exception. The very concept of sustainability is more relevant for Mining and the contribution of Research & Development effort is noteworthy.

The present paper talks about the contemporary endeavors made in India for orienting the research work towards achieving sustainability in Mining. The areas where intervention can be made are many. The most critical area is the conservation of mineral by adopting mineral beneficiation techniques so that total mineral value from the ore can be recovered. This approach is more towards finding new techniques and application of available techniques in combination to arrive at cost effective methods for Mining Industry.

The present keynote will focus on the above subject and deliberate the contemporary issues in Mining for Sustainability.