

Better Management of Mineral Resources Leads to Sustainable Development

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Abstract

Mineral resources are vital raw materials for metallurgical and thermal power industries. These resources being non-renewable in nature, if unscientifically mined and carelessly utilized, are bound to be exhausted in the earth crust very soon, causing complete halt in our industrial and socio economic developments. It is very unfortunate that, in India as well as in some other developing countries, these mineral resources though are abundantly available but are being very much mismanaged. In view of this, serious efforts should be made to explore virgin areas to locate new mineral deposits to enhance the mineral resources of the nation. It is indispensable to apply available appropriate environment friendly processes starting from exploration, mining, beneficiation, agglomeration and smelting to utilise all grades of minerals to the extent possible. In the mining sector, stress should be given to do underground mining wherever possible to avoid serious environmental impact by open cast mining. The beneficiation of low grade ores, sub-grade ores, slimes of the washing plants, existing tailings of beneficiation plants, complex ores / minerals, waste generated from metallurgical industries and power plants should be made compulsory to make environmental benefits as well as conservation of the mineral resources by utilizing best available technology. It is suggested that, the Government should have new mineral policies covering the above activities and develop suitable mechanism for their implementation.

Keywords: Mineral Resources, Metallurgical Industries, Thermal Power Plants, Mismanagement, Environment Friendly Technology, Selective Mining, Beneficiation, Agglomeration, Waste Processing, Metal Extraction, Sustainable Development.