

The Overview of Eco-Environment of Metal Mines in China

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China is one of countries that is rich in metal mineral resources. For several metals (Ti, W, Sn, Sb, Bi, and the rare earths), reserves are among the highest in the world. Eco-environmental damage caused by the exploitation of mineral resources has certain regional and professional characteristics. So several metal minerals are discussed respectively in follows.

In China, Iron resources are more abundant. The characteristic of discovered and mining iron deposits may be summarized into two aspects: the deeper reserving position and the thicker cover layer. Over 85% of iron mines are adopted open-pit mining with a bigger stripping amount.

In the process of iron mining, the eco-environmental problems mainly contain the land destruction and acid waste water pollution resulting from open-pit mining site, peeled-off field and tailing dams. In 1995, the gross output of major ten non-ferrous metals has taken the fourth place in the world. In the meantime, its environmental pollution is very serious. The major pollutants include sulphur dioxide, industrial powder-dust and smoke-dust, waste water containing heavy metal ions as well as solid wastes. Air, water body, soil, vegetation were polluted to different extent owing to the discharges of the pollutants.

Through strict management, technical innovation, improvements of process, renewal of equipment and implementation of cleaner production, not only the discharges of pollutants were reduced but also recovery of metals from "three-waste" and comprehensive utilization of solid wastes were undertaken, The capability and technical level of pollution control were enhanced step by step.