

Prospects

Indian aluminum producers have long-standing experience in technical collaboration with offshore investors. All five major companies have imported smelter technology from abroad. Alcan (Canada) has provided technical and financial assistance to the Indian Aluminum Company (INDALCO) dating back to the 1940s, and retains a minority equity position.

The Ministry of Mines has identified the following prospects for foreign cooperation: bauxite mining, beneficiation of bauxite, alumina plants, secondary aluminum production, joint ventures for smelting facilities in third countries, Gallium recovery, and commercial products from red mud.

Copper

Major Producers

Hindustan Copper Ltd. (HCL) (Government of India)
(HCL is the sole producer of primary copper; a small number of other companies supply copper concentrate to the HCL smelters.)

Output/Trade

India is a net importer of copper, and meets an estimated 34 per cent of domestic demand indigenously. Production of copper ore in 1993/94 was 52,243 tonnes. Assuming a GNP growth rate of six per cent, the Working Group on Non-Ferrous Metals estimated that demand for primary copper would grow from 204 thousand tonnes in 1994/95 to 292 thousand tonnes by 1999/2000. As the GSI points out, "a conspicuous domestic market for copper lead-zinc exists".

Copper is currently mined in Madhya Pradesh, Rajasthan and Bihar, and to a lesser degree in Karnataka and Sikkim. All mines are underground, except the large Malanjkhand open pit mine in Madhya Pradesh. Total insitu reserves of copper ore are estimated at 422 million tonnes. Copper ore resources as at March 31, 1993 are estimated at 732 million tonnes. However, Indian deposits are generally considered to be of low grade; the average ore grade of HCL mines is 1.21% copper.

HCL operates ten mines and two smelter complexes, the Khetri Copper Complex in Rajasthan (capacity 31000 tpa) and the Indian Copper Complex in Bihar (capacity 16500 tpa). During 1993/94, both smelters achieved very close to production targets. Recent, large reductions in customs duties for raw materials (from 90 percent to 10 per cent) may increase the viability of smelter expansion to treat imported concentrates.

Exploration Activity

As directed by the Eighth Five-year Plan, the GSI is giving priority to base metals exploration. GSI reports an increase in the reserve estimate of the low grade copper ore deposit at Akola, Rajasthan from 2.94 million tonnes to 4.0 million tonnes.