

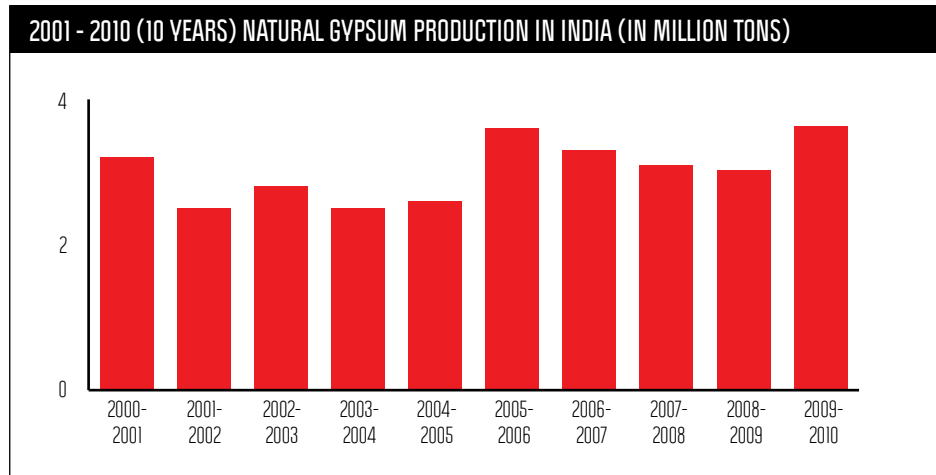
As per the planning commission working group, India's cement manufacturing capacity may climb to 479 million tons by the terminal year of the 12th Five Year Plan, ending 2017, despite the existing over-capacity scenario. According to some analysts, India's cement production will expand to 550 million tons by 2020 and its annual per capita use of cement will rise to 350 kg from 150 kg. Some event point to India achieving 860 million tons of cement capacities by 2030.

According to various research reports, and in view of upcoming massive infrastructure projects, cement consumption is expected to advance at around ten percent CAGR growth during 2012 – 2014 and thereafter at around eight to ten percent on a year on year basis. This rate of growth is expected to strengthen the long-term investments viability of the Indian cement industry.

**RIISING COSTS**

The rising cost of energy, transportation and persistent raw material pressures (like gypsum and coal) have placed a heavy strain on the cement and construction industry. As a result, Indian companies need to explore alternate sources of energy and raw materials.

Present gypsum sources for India include local natural gypsum, imported natural gypsum, and by-product gypsum. Historically, the cement industry in India met their gypsum requirement predominantly from natural gypsum sources in Rajasthan and byproduct gypsum from industrial sources. However, such sources for gypsum peaked and stagnated in recent years,



resulting in more imports mainly from Thailand and Iran.

Thailand has already restricted the export of gypsum by quota and price control mechanisms with the goal of protecting the local cement and gypsum board manufacturing industry and of preserving its mineable gypsum reserves. Iran could be a source for gypsum, but trade barriers will continue to obstruct gypsum imports.

With awareness of greater gypsum importation, the Union Budget 2011 reduced the

import duty on “critical raw material gypsum” and coal by half from five to 2.5 percent. The cement industry had asked that the import duty on gypsum and coal be reduced to zero percent to partly offset rising manufacturing costs, and in February 2011 the department-related parliamentary standing committee on commerce recommended a zero percent import duty on gypsum.

**LOCAL NATURAL GYPSUM**

India produced around 16 million tons of gypsum between 2006 and 2010, averaging

around three to 3.5 million tons annually. In 2010, it produced around 2.5 percent of the world's 146 million tons of natural gypsum. The country's total recoverable cement and plaster grade gypsum reserves are 54 million tons (2005) with the majority located in Rajasthan (over 97% of total reserves).

In Rajasthan, FCI Aravali Gypsum and Minerals India and Rajasthan State Mines and Minerals control gypsum mining. Rajasthan accounts for nearly 99 percent of the total production of gypsum in the country. However, as it is located in the northwest region, transportation costs are prohibitive for many cement producers.

**BY-PRODUCT GYPSUM**

As per the Indian Bureau of Mines (IBM), around five million tons of waste gypsum, such as phospho- and fluoro- gypsum, are generated annually. In the last three years, the cement sector has used between 2.25 and three million tons. These quantities are constant and cannot increase substantially due to higher transportation costs.

In total, local gypsum production/availability is limited to six to seven million tons per year; thus, the balance of demand must be met by imported gypsum.

**IMPORTED NATURAL GYPSUM**

Indian cement producers are dependent on the import of high quality natural gypsum, mainly from Thailand. Other reserves that India could use are in the Sul-

tanate of Oman and more distant countries like Australia, Mexico, and Morocco.

Thailand has reserves of 200 million tons, but the Thai government is taking steps to increase the selling price of gypsum before stopping exports. Based on its calculations, the Thai government may likely push its imported gypsum price up to an estimated US\$33 per ton from the current FOB price of around US\$16.50 per ton. Additionally, reports suggest the country will in the years to come need to stop exporting its gypsum and devote the remainder of its resources to domestic consumption; otherwise, it will face paying higher prices to

**“Indian producers are dependent on the import of high quality natural gypsum.”**

import foreign, likely Australian, gypsum at prices more expensive than the current Thai FOB selling price.

At present, the Thai government has taken steps to stop new mines from opening, has controlled gypsum exports through a quota system, and has divided the export market into different segments that prevent

exporters from expanding into new markets. This has increased the selling price of Thai natural gypsum export, but not significantly.

Importing gypsum from Iran is becoming difficult because of various restrictions/sanctions imposed by the United States and the United Nations, and there have been challenges around payments to Iran. However, few Indian traders appear to be importing gypsum directly from Iran, possibly choosing a more indirect route of working with other Iran-friendly countries to facilitate the transactions.

**OPPORTUNITY FOR SULTANATE OF OMAN**

Given the potential shortfall in supply, and an increase in gypsum demand in India, a significant price increase for gypsum in the coming years is likely. Even though gypsum accounts for just two to three percent of the total cost of cement sales, cement manufactures cannot help but remain sensitive to any price increase. Against this backdrop, the potential supply of gypsum from the Sultanate of Oman becomes a very interesting prospect.

Oman is gearing up for an increase in exports. For example, the Port of Salalah has started a massive expansion to handle future general cargo, including gypsum, exported from the Sultanate of Oman. The US\$130 million expansion will be completed by 2014 and includes the construction of 1,266 meters of linear general cargo berths with drafts of 18 meters. Once completed, the port will be able to handle the capacity of 40 million tons per annum of dry bulk commodities.

In 2011, the Sultanate of Oman gypsum export volume reached nearly one million tons, and Oman gypsum exporters are forecasting a FOB selling price above US\$16.50 per ton in the coming years. Indian cement manufactures will be attracted to Oman's affordability, as the smaller increase in the total cost of cement sales will be easier to justify, given it can be adjusted against local cement transportation costs and the marginal increase on the cement selling price.

