

Sector:

Mineral and Mining

Project Title:

Granite Processing Unit

Project Description

Granite is a premium construction material used to impart high aesthetic finish to various constructs. It has been a material of choice for the construction of sculptures, commercial complexes, and premium residential structures. For long, the use of granite has been restricted to only rich and premium segment of the society due to its high cost.

The situation has drastically changed, due to technological advancement, sophisticated quarrying techniques and decreased cost of mining and processing. Due to increased affordability, the user base of granite has expanded and its demand has seen a rapid expansion in the domestic as well as in the international market.

With an estimated 6,271 million cu. m. granite deposits, Madhya Pradesh (MP) has fourth largest granite reserves in the Country. To assist the development of a thriving granite industry in the State, the Government of Madhya Pradesh (GOMP) proposes to establish a high-end granite processing unit in MP.

The proposed facility would be established on 5 acre of land and would employ state-of-the art cutting and processing machinery. From dimensioning to final grading and polishing, the unit would have strength across the value chain. It would be located in the vicinity of the mine to facilitate cost effective transfer and expedite supply of granite blocks for processing.

The unit would cater to the following key market segments:

- Domestic construction sector
- Monuments construction market
- Hospitality industry
- Exports market
- Handicraft and antiques

For the envisaged project, the GOMP invites participation from private sector. The opportunity is also opened for foreign investors.

Project Rationale

Madhya Pradesh has significant granite reserves of dimensional grade that can be used for construction of monuments and commercial structures and manufacturing of value add products such as handicrafts.

The Chhatarpur, Panna, Sagar, Datia and Shivpuri district of Bundelkhand region has massive medium to coarse grained equiangular as well as porphyritic variety of pink, red and grey granite. While large reserves of multicolour and black granite are present in Pista, Bira, Laulas and Baruli in Panna district.

Despite having rich deposits of high quality granite, the State has not been able to realize the complete value potential of their reserves. It has yet to create a significant mark as a key granite processing hub and garner large share of the lucrative exports market. Presently, the processing units in the State are exporting Gangsaw size blocks mainly to Korea, Indonesia and Far Eastern Countries.

Presently, there are around 35 cutting and polishing unit in the State and there is ample scope for establishing additional modern processing plants. The unit would not only provide processed granite for construction purpose but would also enable its conversion into various value added products. Thus it would assist in realization of higher value margins for the investor.

There are significant opportunities for MP's dimensional stone players in the international as well as in the domestic market, which has witnessed high demand in recent years due to the present boom in the real estate industry especially with increasing emergence of high end commercial structures such as multiplexes, shopping mall etc. Further, changing aesthetic preference of Indian consumers towards premium construction materials is driving the demand of granite in the domestic market.

Proposed Facilities

The unit would have the following key sections and facilities

- Material handling
- Cutting and Grading section
- Polishing section
- Loading stations
- Water reservoir

The unit would have the following key machinery for material handling:

- ✓ Jib cranes
- ✓ Air pillows
- ✓ Derricks
- ✓ Dumpers
- ✓ Gantry cranes
- ✓ Tractors

The key processing machinery would be:

- ✓ Gangsaws
- ✓ Tilling plant
- ✓ Circular saws
- ✓ Polishing machinery
- ✓ Stonecraft machinery

Market Potential and Demand Dynamics

India has one of the best granite deposits in the world. With a varied diversity of more than 200 shades, India accounts for over 20% of the total granite reserve across the world. The total granite reserves in the country are estimated around 42,916 million cubic meters and it is one of the largest exporters of granite and granite products in the world.

Huge deposits of granite occur across various states in the country. Exotic varieties of black and multicolour varieties of granite are available in Karnataka, Andhra Pradesh, Madhya Pradesh, Tamilnadu and Uttar Pradesh. Further, significant granite deposits are also widespread in Bihar, West Bengal and Gujarat.

Granite Deposits in India (Mn cu.m.)

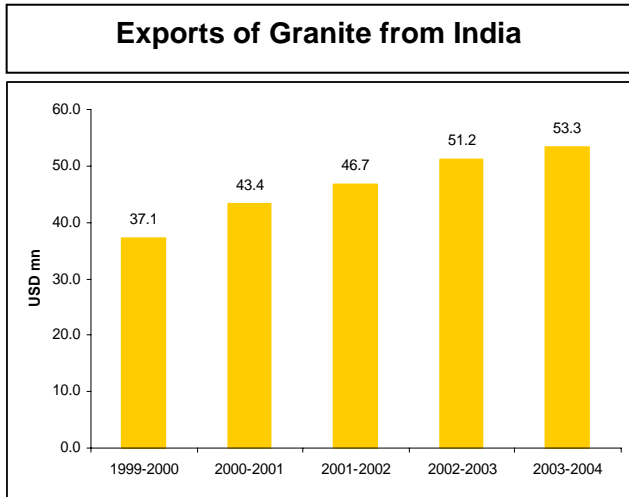
Karnataka	9740
Jharkhand	8847
Rajasthan	8479
Madhya Pradesh	6271
Andhra Pradesh	2788
Orissa	2135
Maharashtra	1159

Source: Stones of India

Presently, MP has 4th largest deposits of granite in the Country, which is estimated around 6,300 Mn cu.m., while Karnataka leads the tally of states with biggest granite deposits estimated around 9,800 Mn cu.m.

India's riches in stone deposits have helped in the growth and development of domestic granite processing industry. Indian stone players has significant strength across the value chain and has evolved into the production and manufacturing of blocks, flooring slabs, structural slabs, calibrated ready to fix tiles, monuments, tomb stone, sculptures, artifacts, etc.

There is a niche market emerging for domestic players, that of value added products like sculptures and artifacts. Consummate skills of Indian craftsmen coupled with availability of premium grade granite have led to the rapid development of domestic handicraft and sculpture industry and there is high demand for Indian sculptures and artifact in the international market.

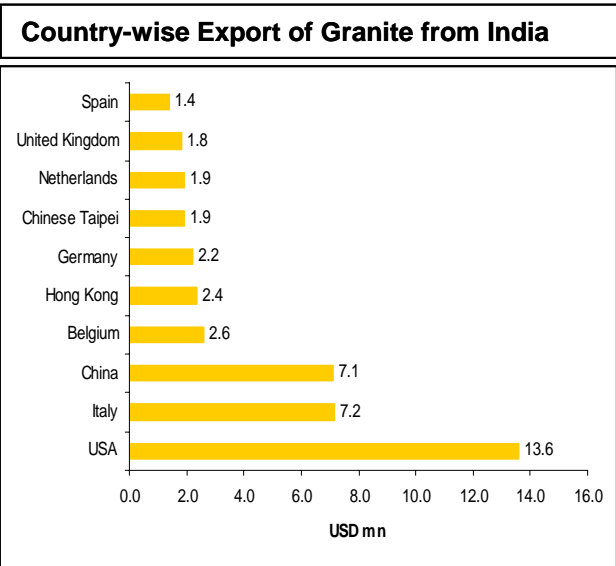


Source: Indiastat

India is among the leading granite exporting nations across the globe. The total granite exports have seen a constant upsurge due to rising demand in the international market.

The total exports of granite have increased from USD 37 mn in 1999-2000 to around USD 53 mn in 2003-04.

The key export destinations for Indian granite manufacturers are Japan, USA, UK, Germany, Netherlands, Italy and West Asia. US is the biggest consumer of Indian granite. The total export of granite to US in 2002-03 was USD 13.6 mn. Although Italian granite is famous across the globe for its high aesthetic appeal, it is the second largest exports destination of Indian granite and granite products.



Source: Indiastat

Further due to increasing environmental pollution and increasing incident of acid rain in various part of the world granite has replaced marble as a material of choice for monuments and other similar structures due to its high durability and aesthetic touch. The changing preference has been a key contributor to the rise in demand of granite in the international market.

Why Madhya Pradesh?

MP's value proposition for the granite processing industry is:

- Vast deposits of high grade exotic granite
- Well established mining industry in the State
- Large number of mechanized mines in the State
- Availability of large workforce at an economy prices
- Strategic central location not only facilitates cost effective logistics function but also enable local player's convenient access to various markets across the Country.
- The central location and well developed connectivity with leading commercial centers and key ports facilitates internal distribution and exports functions

Location Analysis

The envisaged Granite processing unit would be established at Katni. Key criteria's positioning it as an ideal destination are

:

- Ample availability of raw material.
- Proximity with raw material leads to saving of substantial transfer and logistic costs.
- Ample availability of cost competitive manpower.
- Availability of economic commercial land.



Government Support

- ✓ Priority status given to setting-up of industrial parks such as Granite Park, Gem & Jewellery Park and Stone Park.
- ✓ Mineral Concession on export quality deposits of Granite, Marble etc shall be granted on priority to entrepreneurs who are willing to establish 100% Export oriented units in the State.
- ✓ The new policy for the marble mining will facilitate the search of new marble areas in the State. The new policy not only allows the grant of mining lease for marble in the State but also permits the prospecting work for the search of new areas of marble deposits.
- ✓ All those areas reserved for Public Sector Undertakings shall be de-reserved for private entrepreneurs if mining has not commenced in such areas so far or if they have not secured Mineral Concessions and started mining. State Government has granted Reconnaissance Permits to various

<p>private entrepreneurs for searching diamond, base metals & other polymetallic mineralization.</p> <ul style="list-style-type: none">✓ Incentives given to Stone Park includes, rebate in premium for the allotment of land, facility of payment of premium in installments, “Single Window” system, permission to mortgage mining lease hold rights for obtaining the term loan, special cell of Directorate of Geology & Mining to provide guidance, marketing support to the Park.✓ Exemption from electricity duty given for 5 years to industries for their captive power plants (thermal) for which the effective steps have been taken within a year and where the units commence their power generation within the 3 years.
Proposed Capacity
The proposed annual capacity of the plant is 50,000 tonnes.
Proposed Investment
USD 0.4 million or INR 2 crores
Returns
The Internal Rate of Return is estimated around 12-15%.
Coordinating Agency
Madhya Pradesh State Mining Corporation Madhya Pradesh State Industrial Development Corporation