CHAPTER - III

PROFILE OF GRANITE INDUSTRY IN ANDHRA PRADESH

3.1 GRANITE INDUSTRY IN AP

The state of Andhra Pradesh spread over a lofty extent of 2.77 lakh square kilometres. It has a long coastal-line of 960 kms spreading from Ichapuram in Srikakulam district in the North to Tada in Nellore district in the South. Administratively the state is divided into 23 districts and regionally into coastal region, Rayalaseema region and Telangana region. Geographically the state can be divided into five regions consisting of the coastal plains, the eastern central, the south central uplands, the interior rugged plains and the North western plateau.

Andhra Pradesh is a mineral rich state ranking second in the country containing a vast and variety of mineral wealth particularly industrial minerals. Andhra Pradesh is engaged in mining of 42 industrial minerals to name a few lime stone, mica, barites, bauxite, beach sands, steatite, quartz, feldspar, manganese, dolomite etc. There is a still under-tapped and untapped mineral wealth throwing up many opportunities in this field for the new entrepreneurs. The Andhra Pradesh in its vision 2020 document recognized mines and mineral sector one of the growth engines for accelerating economic activity and building up prosperity to the state. Akin to this the state has also made certain structural changes for the speedy processing and disposal of applications of the interested entrepreneurs in obtaining mineral concessions in a transparent time bound manner with a view to save the valuable time to the entrepreneurs. The state has an ambitious program of processing and granting the mineral concessions “online” keeping in tune with advancement in Information Technology.

Andhra Pradesh occupies a land area undertaken by igneous, metamorphic and sedimentary rocks, which is the most prospective region for the most of the minerals ranking second in the country. Out of this area about 2.06 lakh hectares is covered
under mining leases. Still a vacant scope is available to bring in from out of mineral potential areas still unexplored under exploitation. The state accounts for considerable reserves of important minerals, produces 42 minerals worth Rs. 2,300 crores per annum, employs 5 lakh persons, accounts for Rs. 450 crores revenues to the state exchequer, 2.5% of GSDP and 4 - 5% of the total industrial production with over 5,000 private and public sector mines operating in the state. Andhra Pradesh contributes Rs. 200 to Rs.250 crores of Indian mineral exports. Mining sector plays a key role in the economic development of the state and it is identified as an important growth engine in its vision 2020.

Andhra Pradesh is one of the largest producers of granites in the country. 17 out of 23 districts have several occurrences of different varieties of granite. Jet Black, Black Galaxy, Blue and White coloured are exclusive varieties in the international market. The estimated reserves of commercial granites are around 251 million cu m in the state. There are a number of unexplored areas in the state, which contain workable and marketable deposits. Centre and State geological agencies have started exploration to identify new varieties and areas. Vast scope exists for development of granite industry in the state. The government of Andhra Pradesh have the most progressive policy for granites in the country.

Andhra Pradesh is known for wide variety of Granites and having an estimated reserves of 2788 million cubic meters. World renowned Chimakurthy Black Galaxy Granite, Srikakulam Blue & White, Warangal and Khammam Black, Tan Brown of Karimnagar, Indian Aurora of Nizamabad, Tiger Skin and Madanapalli white of Chittoor etc., occur in plentiful quantities. The state produces about 535370 Cu.Meters for processing and polishing. Presently granite worth about Rs.400 to 450 Crores is being exported, a large quantity of which goes to USA, China, and Japan European market etc. Plenty of opportunity exists for making novelty and artefact products with polished granite, which have a good demand in the International market.

Since recent past, Andhra Pradesh stands 1st in granite production & processing in the country, promoting wide varieties of granite in the country. Among the granite
deposits, Chimakurthy Galaxy Granite stands unique & world class deposits. Andhra Pradesh is the biggest promoter of processing of granite in the country & there are about 50 large scale and more than 1000 small scale granite cutting & polishing units in various districts of Andhra Pradesh. The granite industry is significantly contributing to the exports & employment in the State, next to Agriculture. World’s rare and exclusive variety of Black Galaxy granite occurs in Chimakurthy of Prakasam District. M/s. Andhra Pradesh Mineral Development Corporation invites private sector for establishing a granite park primarily basing on world famous black galaxy in Prakasam/Nellore districts close to the port.

Geologically the state is occupied by Peninsular gneissic complex consisting of Archean group, Pakhal super group and Kurnool group are found in Kurnool, Cuddapah, Anantapur, Chittoor, Nalgonda, Mahaboobnagar, Guntur, Krishna and Khammam districts. The Bhima’s are found in the western part of Ranga Reddy district and the Gondwana super group in Khammam, Warangal, Karimnagar and Adilabad districts. The Deccan Trapes are found in Ranga Reddy, Nizamabad, Medak and Adilabad districts. Outcrops of Tertiary formations found in East and West varied geological formations are rich varieties of mineral resources.

But as human civilisation progressed, man has sought special types of rocks with more and more decorative qualities for his construction activities as cheaper and quicker transportation facilities were developed as a result of transportation of large blocks of granite beams possible, one could choose particular rocks with desired qualities for particular purposes even when they are not locally available.

Nowadays several types of rocks are imported and exported by many countries across the world for different decorative and construction purposes. Thus the quarrying, dressing, cutting, polishing and supplying of decorative stones in demand locally and abroad has grown at present into a large and flourishing industry in many countries. Also in our country, the industry has been growing very fast to meet the demands of foreign buyers as well as local market. In the last few years, more and more quarries are opened and many new Industrial units are established, better technology of mining, cutting and polishing is adopted for
producing pleasing and tasteful finished products to suit the aesthetic requirements of consumers.

The state of Andhra Pradesh is gifted with large tracks of different varieties of granite used in cutting and polishing industry. The demand for Andhra Pradesh granites in the international market has already reached to galaxy and struck a favourable note in the world granite market. Extensive and inexhaustible deposits of all shades starting from white to black granites are found in almost all districts of the state. The government has committed to explore all the potential areas to identify the viable and rare varieties of granite for large scale exploitations and to maximise production to earn much needed foreign currency to our country. Quarried pink granites occur in the districts of Ranga Reddy, Karimnagar, Nizamabad, Mahaboobnagar and Anantapur. Parts of these districts also consist of porphyritic coarse grained variety. The relatively are fine-grained aplites are available in karimnagar distirct. Multicoloured granites are found in Anantapur and Ranga reddy districts.

Black granites dykes occur in Warangal, Khammam, Nalgonda, Karimnagar, Medak, Anantapur, Chittoor and Krishna districts. Deep dark coloured jet black variety of granite is available in Warangal and Khammam districts and dolerites yield blocks of varying black to greenish black colours and are available in Nalgonda, Karimnagar, Medak, Anantapur, Chittoor and Krishna districts. Since the largest quarrying activity in the area of granite is connected with cutting and polishing industry, the method of extraction is same irrespective of colour of granite.

Granite quarrying is especially an open cast mining process. Production of blocks of considerable size and weight is the special nature of granite quarrying. After extracting the blocks from the quarry they are removed and transported to the yard where it is dressed to required size and geometrical shape. One of the main problems in granite quarrying is the removal of waste rock. Even after blocks are removed, some of them are broken during dressing and are rejected due to hairline cracks or other defects revealed after very careful examination. Better prices prevail if the block is at least 1 to 2 cubic meters with proportionate sides. Such restrictions
also lead to huge wastage and rejects. Normally, it is estimated that a black mine yields a maximum of ten to fifteen percent useful material out of the total value extracted.

The Major problem faced in granite quarrying in the state is lack of skilled personnel. Marking lines of splitting on insitu rock, the subsequent drilling and dislodging operations and finally dressing the removed blocks require well trained personnel. Even though attempts have been made several times to train local people in these skills, they have not proved successful and the mine owners are forced to bring skilled workers from neighbouring states such as Tamil Nadu and Karnataka etc. Workers from outside areas naturally demand more wages and huge advances, and they sometimes disappear without notice bringing the quarrying operations to a standstill.

Granite quarrying essentially involves removal of over burden, waste rock and boulders from quarry drilling, splitting, lifting, transportation and dressing of block. These require certain mechanisations but the quarry owners have introduced partial mechanism in their quarrying operation which results in poor recoveries. Failure to invest on heavy equipment leads many a miner to poor returns or even losses.

Even though granite mining was started in mid thirties in Chittoor district, the industry did not expand till the seventies; till 20 years ago, the mining remained mostly manual. Presently quarrying operations have attained a certain degree of mechanisation while large mine owners could afford to deploy heavy machinery with the result their output has remained sub optimal. Mining which was in the beginning confined to Chittoor district expanded into other districts in course of time. Presently, Mining leases exist in 16 districts while production is restricted to 8 or 9 districts. Due to higher prevailing prices, most of the mining is black granite; pink and multi coloured granite production is comparatively less. Assuming that all the granite produced in the state in raw form; the percentage production in the State to the total quantity of raw blocks exported from the country is around 8%. Even through the State of Andhra Pradesh is endowed with large reserves of high Quality granites, together with the neighbouring States of Tamil Nadu and Karnataka, both
of whom are significant producers and exporters of granites in raw and finished forms the performance of our State is evidently very poor so far. Concerted efforts should therefore, be made to substantially increase the production of granites from our State in the coming years so that our contribution to the national exchequer becomes proportional to the reserves we posses. It is well known that sale of any resource in raw form yields low return compared to sale of their processed and finished products.

The government placed a ban on sale of raw granite block from the state, with a view to induce quarry owners to establish cutting and polishing units in the states. This is evident because export of raw blocks abroad is not advantageous to the owner or the state, as also because raw blocks are transported to other states where they are cut, polished and exported. This measure of the Government though might appear to be a hardship on mine owners presently is already yielding results in that several new industrial licenses have been applied for. One could hope for a number of large, medium and small - scale industries in the near future in the state.

The demand for granite stones increased steadily till the late sixties, but during the last 20 years world production and demand rose spectacularly. The industry experienced tremendous expansion on all fronts. Instead of Black Granite rocks and semi-finished products for tombstones in demand, about 23 different varieties of granites shaped as fine-polished tombstones, monuments, building slabs, panels and tiles are being utilised at present for a variety of purposes.

The number of industrial units established increased several fold and the employment generated multiplied by more than 150 times. Investment increased nearly 750 times and production by more than 40 times.

It is a welcome feature that indigenous demand for granite has been created a few years ago and has been steadily growing. The granites are being more and more sought after the construction of memorials to national leaders, luxury hotels, public buildings and shopping complexes in metropolitan cities. Granite tiles are being increasingly used for flooring purposes by the rich people and as tabletops, ledges,
bathroom decorations, etc. even by middle class Indians. Yet, it looks that there is a tremendous scope for increasing the domestic market. Efforts in this direction should be made by the Association of Granite Manufactures to further quicken the growth of domestic demand.

The Andhra Pradesh state has lost the lead it had in fifties. Though pioneers in the production of finished granite, they have not adopted the modern technology of granite processing for several years. The mining activities continued till late sixties mostly to Chittoor district.

The Government at that time did not provide enough encouragement and guidance to the entrepreneurs. Meanwhile, granite industry has experienced tremendous growth in Tamil Nadu and later in Karnataka. It was said that the state owned enterprises in these states alone are exporting granite in raw and finished form to a tune of several crores of rupees every year.

One can imagine that the revenue generated by private enterprises in those states could be much higher. While the quality of black granite in Tamil Nadu is rated as the best and the production of black granite in this state is quite sizeable compare to other varieties. Karnataka has several types of coloured and porphyritic granites, which are in great demand in the country and abroad.

In Andhra Pradesh, the pride of place goes at present to the Jet black variety. The best Jet black granite of Choutpalle, Warangal district being quarried by the Andhra Pradesh mineral development corporation limited, is as good as, if not better than, the best black granite of Tamil Nadu and is fetching highest export price in its raw form of more than Rs 20,000/- per cu.mt. Presently, the other varieties of Blocks from Andhra Pradesh get prices ranging from Rs.20, 000/-, to Rs.8, 000/-, while the pink and multicoloured granites fetch between Rs.4000/- to Rs.6500/- per cu.mt.

The phenomenal growth of the decorative stone industry owes a great deal to the technological developments brought into the processing equipment. Introduction of new tools and automatic precision equipment in granite cutting and polishing has directly led to the development of the market in that the finished products have
become artistic masterpieces, appealing to the users and sought after by the building architects. The modern equipment made it possible to cut and polish to a fine finishes several varieties of granites which earlier in their crudely processed form did not find place in building industry. The equipment being capable of processing large quantities of granite in shorter time lead to cost effectiveness of the industry is now able to cater material of required colours, sizes and shapes at competitive rates. Thus, the granites have by and large replaced the earlier commercial decorative stones such as marbles and sand stones in building decorations in many developed countries.

Andhra Pradesh, though was involved in producing processed granites over several decades can be said to be very backward. While in the neighbourhood states of Tamil Nadu and Karnataka several units producing different sizes and shapes of granite blocks, monuments, panels, tiles etc. from different varieties of rocks flourish, the number of such units at present in the state is meagre. The state owned Tamil Nadu minerals Limited and Mysore minerals limited have their own large sophisticated units for the above purpose, where as their counterpart in the state, viz., Andhra Pradesh mineral Development Corporation Limited does not have any such industry. In private sector there are some units established recently, in addition to six units at Kuppam and one unit in Bangarupalem, working from several years. There are to, hundred percent export oriented units, one each in Chittoor and the other in Khammam districts. A few more are said to be in operation in the non-hundred percent export oriented sector. In addition, there are a few small scale and tiny units producing granite tiles for indigenous consumption.

The indigenisation process in the granite industry has just begun and a number of big business houses have entered the sector. Apart from setting up processing units, the new players are keen to enter into the business of granite quarrying. However, the development of the industry has suffered severely due to the lack of a uniform national policy on Quarry leasing, royalties and dead rents. This is compounded by different policies in each state and the lack of proper growth oriented policies.
If effective mining operations are carried out scientifically through automated machines, they can contribute much to the optimum realisation of Quality blocks from natural granite deposits. Manual Quarrying results in higher wastage of the mineral resources making it imperative to introduce scientific methods.

The union government has identified granite as a focus industry to increase the country’s share in the global market. The union government has liberalised the mineral policies and commercial policies to enable the granite entrepreneurs to face stiff competition from African countries, China and Brazil. There was tremendous scope for enhancing the exports, as the country’s share in global granite trade was just 12% now. In order to adopt corrective techniques to increase the output, the Geological Survey of India was asked to carry out a survey of commercial granite deposits in various states. This would enable entrepreneurs to target the most suitable areas for exploitation in a quicker and cost effective manner. The GSI was updating the capability to test various geo-technical characteristics of granite for the benefit of the country.

There is a vast scope for stepping up the production of granite, both in raw blocks and cut and polished model forms for growing internal and global market. From the foregoing, it would be evident that there is ample scope in the state for developing the granite industry. There are different rock types, with plentiful reserves, suitable for the purpose. There is very good market for the cut and polished granite in foreign countries. The indigenous market is picking up and soon the demand for panels and tiles is bound to increase. What is required is a well thought out project and its meticulous implementation. High quality commensurate with international standards should be maintained for the finished goods. Mining should be scientific, with due regard to environment and with a view to avoid wastage of resource.

There is a vast potential and prospects of Granite Industry in terms of employment generation, investment, revenue earnings, export potential and foreign exchange earnings. If outright and concerted efforts are made by the industry to tap this vast source of foreign exchange earnings available in abundance may help facilitate to
improve the much sought after balance of payment under the new Industrial policy directives.