CHAPTER-VI

SUMMARY OF FINDINGS, CONCLUSION AND SUGGESTIONS

India is rich in natural resources, Minerals constitute the back-bone of economic growth of any nation and India has been eminently endowed with this gift of nature. There is much evidence that exploitation of minerals like coal, iron-ore, copper, lead-zinc has been going on in the country from time immemorial. Natural stones like granite and marble are capable of taking a high polish and are therefore used as decorative stones for cladding purposes in the construction industry, as well as for monumental and memorial work. Granite carries a status symbol of luxury and it gives a long-term benefit to one who has purchased it. This is so because it is a very durable stone. The granite tiles can be used for indoor and outdoor decorations of your home. Floors, counterparts, fireplaces, porticos of large or small buildings can be made elegant and luxuriant by granite. Large buildings, monuments, mansions, multi-storied buildings make use of this stone for adding that elegant decorative touch.

Since granite is a hard rock, special grinding and polishing heads are used for rapidly grinding and polishing the slabs of granite. For polishing soft stones like granite, it is necessary to have a complete surface to surface contact of the abrasive and marble. The basic principle of polishing any natural stone is to hone the surface of the stone by progressively using finer mesh of abrasives until the natural cluster of the stone is obtained. A polished piece of natural stone is capable of reflecting a major portion of the light falling on it. In most modern stone processing plants, bonded abrasives are used for grinding and polishing natural stones. India is largely self-sufficient in most of the minerals which include barites, bauxite, chromite, dolomite, fluorspar, gypsum, iron ore, kyanite, limestone, manganese ore, magnesite, sillimanite, etc. except the phosphates, sulphur and crude petroleum, in which domestic production meets the demand only partially.
India has one of the largest reserves of granite in the world and exported Rs. 2,600 crore (Rs 26 billion) worth of the stone last year. Granite exports this fiscal are expected to touch Rs. 2,800 crore (Rs 28 billion) and nearly one-fourth of these exports is accounted for by monument stones.

Indian granite exports have declined 33 per cent between 2006-07 and 2008-09. The sector, which relies heavily on American and European demand, was among the first to feel the heat of the sub-prime crisis. Its export revenues fell steeply in 2007-08, even before there were visible signs of a slowdown in Indian housing and Industry. What perhaps explains the increase in volumes in 2007-08 is that polished granite, which commands a better price, was substituted by semi-finished blocks. Yet, prices in the latter category remained unattractive, reflecting the severity of the recession. Volumes increased by 10.2 per cent in 2007-08 over the previous year, while revenue earned from exports decreased by 17.6 per cent this year. The decline in export earnings and volumes was more pronounced in 2008-09. The export of polished granite blocks and slabs was 4.13 lakh tonnes in 2007-08. Export revenue in this segment declined 51.9 percent more than the sector as a whole – to Rs. 862.63 crore 2008-09 from Rs. 1,791.98 crore in 2006-07. In 2007-08, it was Rs. 1,332.56 crore. However, the export of semi-finished blocks to China has not been as badly affected. The export volumes of crude or roughly trimmed granite increased to 25.63 lakh tonnes in 2008 from 21.47 lakh tonnes in 2007. In 2009, it declined to 23.92 lakh tonnes. Exports revenue largely remained flat at Rs. 1,478.95 crore in 2009, compared with Rs. 1,479.44 crore in 2008. In 2007, it was Rs. 1,703.37 crore. Granite accounts for 10 percent of India’s minerals’ output. Over the last three decades the Indian granite industry has modernized to global standards. Sculptures and monuments made in India are being exported all over the world.
6.1 SUMMARY OF FINDINGS

The following are the findings of the study:

1. Indian sub-continent is endowed with a variety of granite deposits of commercial nature. Over 300 attractive commercial varieties of granite have been recognized world over. India broadly possesses and exploits more than 80 commercial varieties. Extensive deposits of granite are found in the states of Assam, Andhra Pradesh, Bihar, Gujarat, Haryana, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, West Bengal and Uttar Pradesh.

2. India is the third largest granite producer, next only to Spain and China. Karnataka’s reserves, estimated at 546 million cubic metres are the largest in the country. It has recoverable reserves of 195 million cubic metres up to depth of 10 metres. Incidentally, granite is the country’s third biggest foreign exchange earner, after iron ore and diamonds.

3. Granite Industry consists of export of Dimensional Blocks both for monument industry and building stone industry, export of monuments and tomb stones, export of buildings slabs, export of tiles, export of other decorative and engineering products, export of pavement and kerb stones, export of various natural shaped garden and environmental stones etc.

4. The granite industry first has to consolidate its strength in organising proper quarrying. The stone industry is highly capital intensive, highly labour intensive, highly risk intensive, highly competitive from many countries.

5. The Indian Stone Industry can establish itself as the second stone centre of the world after Italy. Naturally India should also build up many more industries to manufacture equipments, tools and machines of its own for proper development of the Indian Stone Industry. Definitely, Indian stone due to its innumerable inherent variations in grains, colour and structural strength will present a wide spectrum of beautiful stones to the world.

6. The major problem faced in granite quarrying in the state is lack of skilled personnel. Marking lines of splitting on in situ rock, the subsequent drilling
and dislodging operations and finally dressing the removed blocks require well trained personnel.

7. In Andhra Pradesh, the pride of place goes at present to the Jet Black variety. The best jet black granite of Choutpalle, Warangal District is being quarried by the Andhra Pradesh Mineral Development Corporation Limited.

8. The Union Government has identified granite as a focus industry to increase the country’s share in the global market. It was estimated that the exports from India would cross 1000 crore by the turn of 2000 A.D. 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.

9. The state of Andhra Pradesh is gifted with large tracks of different varieties of granite/rocks used in cutting and polishing industry. The demand for Andhra Pradesh granite in the international market has already reached to galaxy and it is a favourable note in the world granite market. Extensive and inexhaustible deposits of all shades starting from white to black granites are found in all most all districts of the state. The government has committed to explore all the potential areas to identify the viable and rare varieties of granites for large-scale exploitation and to maximize production to earn much needed foreign exchange to the country.

10. The Government has to give serious thrust with regard to resource inventory of all the minerals available in the state and their quantification and qualitative aspects; and Research and development on utilization of mineral wastes so that the precious and non-redeemable assets are put to optimum use.

11. The minerals having high export potentiality or import substitution like granite, asbestos, copper etc, should be given prime importance particularly in the present competitive environment where export trade has a lot of foreign exchange which is very much required for the country.
12. Formulation of a policy to mine the minerals like granite, copper, lead and whose production also result in saving of precious foreign exchange, is very much required.

13. Mineral based industries have to be promoted in a big way for utilizing the minerals within the state without allowing it to go in the raw form which generates employment as well as value addition to our mineral resources. As on today, mining has not been declared as an industry.

14. 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 mechanization.

15. The State of Andhra Pradesh is endowed with large reserves of high quality granites, together with the neighbouring state of Tamil Nadu and Karnataka, both of whom are significant producers and exporters of granite in raw and finished forms, the performance of our state is evidently very poor so far. Concerted efforts should be made to substantially increase the production of granites from our state, so that our contribution to the national exchequer becomes proportional to the reserves we posses.

16. The Government placed a ban on sale of raw granites blocks from the state, with a view to induce quarry owners to establish cutting and polishing units in the state. This is evident because export of raw blocks abroad is not advantageous to the owner or the state.

17. The demand for granite stones increased steadily till the late sixties, but during the last 20 years the world production and demand rose spectacularly. The industry experienced tremendous expansion and growth on all fronts. The number of industrial units established increased several fold and the employment increased nearly 750 times and production by more than 40 times.

18. Small entrepreneurs explored the Granite Industry in the initial stage and now we find that big business houses, foreign companies and multinationals evincing interest in the Granite Industry, considering the vast export
potential. Thus, the Granite Industry in India has come to stay as an important industry from the export point of view and the huge foreign exchange resulting from the Granite exports.

19. The development of the industry has suffered severely due to the lack of a uniform national policy on Quarrying leasing, royalties and dead rents. This is compounded by different policies in each state and the lack of proper growth oriented policies.

20. Manual quarrying results in higher wastage of the mineral resources making it imperative to introduce scientific methods. Indian industry has been making efforts to formulate a progressive policy for development of granite mining so that with the latest techniques, the mines could be developed scientifically in an environment friendly manner.

21. The granite industry feels that the entrepreneurs should have the quarry leases for a long duration i.e. 20 years lease period, with two equal renewals so that they are in a position to execute orders over a long period.

22. Quarrying should be made an industry so that entrepreneurs could get all available benefits. Insisting on setting up of processing factories while granting quarry leases was impractical and would not help the industry in any way.

23. India can easily develop new granite quarries and set up processing factories on par with other countries. With its abundant deposits of granite the industry is expected to flourish in the years to come mainly due to cheap labour and mere monopoly in certain qualities like black granites.

24. 15 units were established less than 5 years back, while 8 units were established more than 5 years back, but less than 10 years. Similarly 7 units were established more than 10 years back, but less than 15 years. There is not even a single unit, which has come into existence 15 years ago. Hence, most of the granite units have been established very recently in accordance with the State Government’s policy. Thus the granite processing and polished units in the state are in infant stage.
25. Of the 30 sample units 20 units were established under sole proprietorship form of business, while 3 units were formed under partnership form of business; 7 units were opted for the company form of organisation, considering the need for mobilising the huge resources for their business. These 7 units were established as private limited companies. There is not even a single unit, which comes under public limited company form of business.

26. 21 entrepreneurs have experience in granite industry with less than 5 years, while there were 6 entrepreneurs whose experience varied between 5 to 10 years, and 3 entrepreneurs were having the experience in granite industry more than 10 years and less than 15 years. Thus, the promoters of the 30 sample granite units have experience in granite industry.

27. The entrepreneurs have inherited the business in 3 units, while in case of 6 units; entrepreneurs have entered the industry because of the knowledge and experience, which they had. In case of 2 sample units, the entrepreneurs have entered the granite industry, because they have been motivated by the success of other entrepreneurs. In the case of 18 sample units, the promoters have entered the industry, because of good market potential. The vast export prospects have been the main motivating factor in entering the industry.

28. The educational background of the entrepreneurs play a vital role in shaping the destiny of the units promoted by them particularly, in industries such as granite, the entrepreneurs in the sample of 30 granite units. Entrepreneurs of 21 sample units have collegiate education, while in respect of 9 units, the entrepreneurs have technical education.

29. Entrepreneurs of 12 samples units come from the trading background, and in respect of 3 sample units entrepreneurs have the agriculture background. Entrepreneurs of 3 sample units are from the service background. Another 12 sample units, the entrepreneurs have the family background of Industry.

30. Entrepreneurs of 20 sample units felt that adequate capital was the most important factor for the success of their units, while entrepreneurs of 2 units considered proper management as the first factor for their success and
entrepreneurs of 8 units felt that adequate deposits of granite would ensure proper working of the units.

31. The entrepreneurs of all the 30 sample units ranked personal contacts, first in the order of preference for the recruitment of workers. Employee referrals, labour contractors and relatives of existing workers were ranked second by the entrepreneurs of the sample units. Third ranking was given to labour contractors, relatives of existing employees and casual callers. Thus, we find that the entrepreneurs had given greater importance to personal contacts, in choosing the personnel for their units.

32. It is found that all the 460 personnel employed in the granite units, are from local area only and hence the entrepreneurs are successful in hiring personnel from the local area only, avoiding the trouble of hiring workers from other states.

33. Of the 78 persons in the General Staff category, 35 persons (45%) are serving the units for more than 6 years, 21 persons (27%) between 2 to 4 years and in the case of 12 persons (15%) serving the units between 2 to 4 years and in the case of 10 persons (13%) they rendered their services to the organisation between 4 to 6 years. Thus, the General Staff have put in considerable length of service in the units.

34. As regards the Technical staff category, 63 persons are in service for more than 6 years. This constitutes 76 percent of the technical staff in the 30 sample units. There are 15 workers (18%) whose service is in the range of 4-6 years and 5 workers (6%) between 2 to 4 years. A vast majority of the technical personnel have been in employment for a long time in the units.

35. In the case of skilled workers, 75 workers (65.2%) have service over and above 6 years, followed by 20 workers (17.3%) in the range of 4 to 6 years and 15 workers (13.2%) between 2 to 4 years. Only 5 workers (4.3%) among the skilled workers were working in the units since the inception of the units.

36. 130 unskilled workers are in employment for a period exceeding 6 years, while 40 workers have put in service between 4 to 6 years. In the case of 10 workers, the service put in by them is between 2 to 4 years while, 4 workers
among the unskilled workers they have put in their service just less than 2 years.

37. In the case of General Staff, 21 samples units have fixed the wages on the basis of the experience, while 9 units have determined the wages in accordance with the wages prevailing in similar units. 21 sample units have given due weightage to the prior experience, with regard to Technical Staff, while 6 units have opted to decide the remuneration in accordance with wages in similar units, and 3 units have taken the wages fixed by Government as base for fixation of wages to its workers. In the case of skilled workers, 24 units have assigned greater importance for the previous experience, while 3 units have fixed the remuneration on the basis of demand for skilled manpower.

38. Of the 460 workers employed in the 30 granite units 313 workers have been paid overtime by the units, for the extra work put in by them.

39. 41% of the general category employees have been covered under the incentive schemes formulated by the sample units. While the rest have not been covered. As regards the technical staff, 43% of the personnel have been covered under this scheme. 35% of the skilled workers in the sample granite units are brought under the incentive scheme, while in the case of unskilled workers, nearly, 30% of the workers got the benefit under the incentive scheme.

40. 4 sample units under proprietary form of organisation are having investment less than Rs. 10 lakhs and 12 samples units are having the investment in the range of 10-30 lakhs and remaining 4 sample units are having the investment in the range of 30 to 40 lakhs. Regarding the partnership form of organisation two units are having the investment in the range of Rs. 10-30 lakhs and one unit in the range of Rs. 30-50 lakhs. In the case of private limited company form of organisation 2 units are having investment in the range of Rs. 10-30 lakhs and 5 units in the Rs. 30-50 lakhs range.
41. Majority of the entrepreneurs of the sample units have entered into the granite industry because of good demand and prospects for granite industry in Domestic as well as foreign market.

42. The non-availability of sufficient capital and problem of raising the loans from the financial institutions are the major problems for the healthy growth of granite industry.

43. The Quarrying techniques, being followed so far are mostly traditional ones. Now the techniques in the country are slowly and steadily, being mechanised by developing heavy machinery. These operations require heavy investment and large infrastructure.

44. The scale of operation in the dimensional stone industry is still very small which is resulting in higher cost of the finished products and maintaining proper delivery schedules for the building projects.

45. The quality of infrastructure facilities like availability and quality of power, quantum and quality of water, communication and transport facilities affect the productivity of the processing plants. The fluctuations in power affect the performance of equipment.

46. The granite industry needs huge amount of working capital in order to maintain enough raw materials in view of diversity and interior location of quarries and volume of consumables since they have to be imported. Both non-availability of sufficient finance and the prohibitive cost of money are causing problems threatening efficient working of granite units. This is one of the main causes for low capacity utilisation of the units.

47. The data on market specifications, standards, preference, designs in various overseas markets are not readily available to entrepreneurs. The entrepreneurs lack innovation in presentation and advertising their products when compared to Italy, Taiwan etc.

48. Joint promotion strategy is lacking among stone exporters. In fact they compete with each other resulting in lower realisation of value. They are also loosing projects in absence of consortium bidding where as Italian and Spanish companies are bidding in consortium.
49. The world wide recessionary trends have hit the Indian Granite Industry hard. The loss of the Southeast Asian market and a drop in prices in other parts of the World has stunted the growth of granite processing units (exports oriented units). Together with the lack of incentives as offered in China the absence of a uniform national policy and the burden of local taxes, the industry now finds itself unviable.

50. In view of the tremendous potential of granite exports, the Government has identified granite industry as a thrust area and necessary measures are underway to encourage 100% EOUs. Under this backdrop, Ministry of Mines, Government of India has constituted Granite Development Council, under the chairmanship of Secretary (Mines) with representatives of major producing states, industry and concerned departments.

51. In spite of generating forex earnings to a tune of Rs. 1600 crores, the granite industry is still classified as a minor mineral. This makes granites a state subject and is the root cause for several problems, which the industry is facing.

52. A majority of the units are on the verge of closing down, as margins have become non-existent. Arrears of term loans, working capital and interest are increasing, and unless the Union Government, State Government and the financial institutions step in, it will be difficult for the industry to survive.

53. Quarrying and processing of granite create environmental problems like degradation and waste generation. This is chiefly because of unscientific and unconventional methods of working. It further leads to very low percentage of recovery.

54. Lack of holistic approach in developing the industry has put brakes on its sustained growth. India has yet to make inroads into the finished products area, which holds tremendous opportunities, value addition, too, would swell export earning if only the industry makes use of the available technologies with business sense.

55. The lack of a professional approach in marketing and the situation of too many players jumping into the market without a proper understanding of the
industry are serious barriers to India emerging as a leader in the international market. This is particularly true to Andhra Pradesh, which accounts for 50 percent of the country’s granite exports.

56. The acquisition and adaption of technology is another critical area where industry has shown little wisdom. This has caused severed efficiency losses while Quarrying and processing resulting in considerable wastage of the end product. The use of the standard machinery available in the international market has led to adaptation and assimilation problems for the industry and added unnecessary capital costs. The high cost of money has only added to the cost of production, which is not commensurate with productivity.

57. The granite industry is labour intensive and it requires skilled manpower for production of granite without much wastage. The labour is available at cheaper rate in the state but they are not added by the technology. They are not provided with modern tools. Technology is not upgraded with changing times. Therefore, the entrepreneurs felt the need to introduce the modern technology to increase the productivity at quarrying and processing in order to enhance the prospects of the Industry.

58. Technology is one of the important factors, which influence the prospects of the granite industry. The technology should be developed to process local stone and blocks depending on hardness, size and other parameters.

59. In order to stimulate industrialisation throughout the state, the Government is offering facilities and incentives to prospective entrepreneurs wishing to set up industries in Andhra Pradesh. The incentive scheme was first introduced in the state in 1961 and has been modified several times to make it attractive and keeping in view the needs to achieve the goal.

60. Andhra Pradesh Mineral development Corporation has a crucial role in the development of granite processing industry in the state. Most of the services in the field of mineral development and mineral based industries would be available from the APMDC to the entrepreneurs and industrialists of granite cutting and polishing industries. These will naturally include identification of
suitable decorative stones, estimation of the reserves, quality, mine planning, leasing, mining methods, equipment and overseeing mining aspects.

61. The vastness of deposits, expected to last more than 100 years and the cheapness of labour could be formidable factors for India to emerge as a serious competitor. It has had to reckon with stiff competition from the European granite giants, Italy and Spain which depend largely on imports for their raw materials. India is sitting on seemingly limitless quantities of deposits making it that best raw material source. It also enjoys advantages over China, Brazil and South Africa in rough block exports and has created a sizeable demand in the monuments market.

62. Another serious obstacle to India emerging as a major player is quality. Inadequate attention to the dressing of blocks before shipping has marred the country’s reputation abroad. Interestingly not one Granite Company has gone in for ISO 9000 Certification, an effective marketing tool for a sustained presence in the international market.

6.2 CONCLUSION

India is one among the leading countries in mining and export of granite and is rich in granite reserves. Geographically, the southern and eastern belts of the Nation are abundant in granite deposits. Different shades of granites are available in abundance in Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, Assam, Bihar, Rajasthan, Orissa, Meghalaya and Madhya Pradesh. Indian Granite stone has become the most sought-after and extensively used stone material in building and massive structural works throughout the world and it is well known in the international market, not only for its elegance and aesthetic quality, but also for its durability.

The Granite Industry has received a wider publicity and corporate importance in the last few years. The industry is emerging now as a thrust-export-area with several corporate houses, supported by expert professionals trained in all aspects, entering the sector with sophisticated world-class machinery and making it an organized one.
Many overseas buyers including the Japanese are the regular importers of the Jet Black material, which is considered to be the world’s best variety and is found in abundance in Tamil Nadu, Andhra Pradesh and Karnataka. But they have of late, lost confidence in the supply of materials owing to its interrupted schedule. This was because of inconsistent policies of the Governments towards the industry, together with political interference in mining lease and other procedures.

India is one of the leading nations in the production and export of Granite and other stones. Granite is a very hard crystalline, igneous or metamorphic rock primarily composed of feldspar, quartz and lesser amounts of dark minerals. India has vast resources of granite with about 110 varieties of different colours and textures such as black, grey, pink, multi coloured etc. These varieties are used to produce monuments, building slabs, tiles, surface plates etc. However, popular varieties are mainly found in South India.

Granite in the form of slabs and tiles has several attractive features, which inter alia includes extra-fine, mirror-polish, scratch-free glossy surface and durability. Granite can be compared very well with other floor and wall application material such as ceramics and marble. Mining for granite is done manually. For drilling and channelling hand chisels and hammers are used. There are very few quarries that have mining machinery, such as compressors and drilling machines for drilling and blasting. Cranes for lifting big blocks and dampers and trucks for transport.

During the last five years exports have grown steadily by about 10% a year but this growth rate may increase even more in the near future. New companies may not be entering the industry but many existing companies are steady increasing their production capacity to meet demand.

The status of the Indian stone industry is a matter of concern for anyone who is involved in this industry. India is the world’s third largest producer of natural stone and fifth in export of finished products. Even today the Indian share of world market is less than 10%. There is, however, a bright future for increasing the Indian share in the world market with its vast area of granite deposits spreading over more than 15
states and with wide variety of colours and skilled work force. But to achieve this task, the major problems of the industry have to be analysed through mutual co-operation between the Government and the Industry. The growth of the granite sector, which provides a lot of employment, particularly for the rural masses, is important for the socio-economic development of the country.

The main problem of Granite Mining Industry in India is the low productivity and high wastage. The granite mining industry in India is far behind in terms of productivity compared to countries like Italy, Brazil, Spain, Norway, South Africa etc. The low productivity is mainly due to conventional methods of mining adopted at present. The Industry is slow in adoption the use of wire saws and shot drilling instead of conventional blasting burner. Though the wastage had come down and has reduced some more in the following years, there is still a long way to go to match international standards. The mechanization of the quarry with modern machines and new techniques will increase the production of defect free blocks. The high productivity and production of defect free blocks with less wastage is essential for economic viability of the industry or otherwise the industry will loses its competitiveness in the world market.

The low productivity per worker and less manpower utilization is another problem for the granite quarrying in India. The lack of exposure to modern quarrying and training for the Indian workers is a major reason for the low productivity of the workers. It is high time that Government and the industry should work together to establish a Training Institute to educate and train the work force, which will help the mining industry to a great extent. Better utility of labour force with motivation for high productivity is essential for the growth and competitiveness of the industry.

The future of the granite mining industry depends on the immediate attention both the Union and State Governments to the problems of the Industry. The foremost step should to be declaring granite as a major mineral and granite mining as an Industry. Since the granite industry is one of the important sources of foreign exchange earnings, it is high time the Government of India steps in to encourage the granite
mining industry. The granite industry deserves better treatment from the Government. The problems can be stored out easily if the granite mining is declared a major mineral and bought under the central government power.

The Government should announce a long-term mining policy and stop frequent changes of leasing policies as adopted by various state governments. Granite mining is a high-risk area where there is no guarantee on return on investment. The mining of a natural product requires a long period of time to develop the land and infrastructure and high investment for economical operations. Hence the leases of quarry lands should be on long-term basis of minimum of 30 years as in other countries like Spain etc. where it is normally ranging from 30 to 90 years, or in Brazil, where policies are even more liberal. For any quarry, a minimum of one year is needed to develop the infrastructure and a minimum of 10 years to recover the investment in case the market receives well the particular colour of granite. Declaring long-term leasing and avoiding fragmentation of one area will ensure and encourage entry of leading corporate companies into granite quarrying. It is impossible for anyone to invest in machines and modernise the quarry in the absence of long time leasing.

The procedures of lease agreement, permits for movement of blocks, payments of royalty etc., must be simplified. Most of the times the despatches are held up due to delay in getting the permits and particularly during holidays, strike etc. Since highly valuable goods are presently allowed on self-removal scheme, the granite blocks can also be allowed under the same scheme in place of the present permit system. This will avoid eliminating delays in despatching blocks and meeting the delivery schedules of the buyers.

The government should also consider the demand of collecting the permit fees on net measurement of blocks instead of gross measurement as followed at present. The companies can be asked to produce Bill Of Lading or the invoices to verify the net measurement. Also permit fees should be on the value of blocks exported instead of
the present calculation based on tonnage. As the export value varies from colour to colour, it is unfair to collect the same permit fees for all the colours of granite blocks.

The Government should also ensure that the blocks are measured with allowances as per the international standard rather than individual dictations. More allowance means loss to both the quarry owner and the government.

As per the geological survey, India has a vast area of abundant granite deposits of various colours that are still to be explored. The government should encourage entrepreneurs to explore the new areas. Every effort should be taken by both the government and the granite industry to improve the country’s share in the world market by exploring new areas.

The government should also guarantee free trading without imposing any restrictions on exports of blocks. The processing capacity in India is still limited compared to the potential and entire production of blocks cannot be absorbed by the processing industries. More than hundred varieties of colour granites are available in India out of which only very few colours have demand as finished products. The rest of the colours depend on the export market only as blocks.

The major problem highlighted by the processing industries is the non-availability of best quality blocks for the processing. As exporting of blocks is more advantageous due to high value realisation, the processing companies are finding it difficult to buy certain colour granite blocks as per their requirement. The first quality blocks, which are free from defects and larger in size, are always given preference for exports. Hence the local processing factories have to depend on smaller size blocks which resulted in high processing wastage, higher production cost and thereby, high selling price. This is one of the reasons for the competitiveness of finished products in the world market. It is true that many Indian companies are unable to compete in terms of price with those in other countries that import the same colour granite from India and then process and sell in the world market. To ensure availability of first quality of large size blocks to the processing industries, the tax benefits under 80HHC should be extended for the sales made to 100% export oriented units. Also
Government can issue instructions that all the quarry owners should supply minimum quantity to local processing companies, to say of 25% of their export turnover to avail the tax concessions. This will help the processing companies to be more competitive in the export market. More block availability means more production and will pave the way for new processing units to come up. It must be the aim for both government and the industry to expand the processing capacity of the country to get more value addition.

The consistent modernization of the factory and upgrading of the processing technology by installing new machines will improve the productivity and reduce cost.

The domestic market should be encouraged by lowering the excise duty on the second sales from 100% export oriented units, which will help the processing companies to achieve higher capacity utilization, and more domestic demand will help the stone industry to expand faster.

The existing infrastructure to meet the needs of the stone sector in India is extremely poor and inadequate for the growing demand. The infrastructure facilities like road, rails, electricity services, water sources need to be improved.

India has to go a long way to meet the energy requirements of the country. However, it is to be noted that simply consistent voltage and reduced cost of energy will help the industry to grow. The availability of electricity in areas nearby the quarries will encourage putting up processing industries in rural areas. The waiting time for the vessels to be anchored is very long which delays the berthing of ships and sailing. The infrastructure is the backbone for any industry to operate economically and compete in the world market. Unless proper facilities are created for smooth traffic and movement of materials, further development will not be possible.

The high rate of interest charged by the financial institutions should be reduced to make the Indian products more viable in the world market. The present interest rate
of 9 to 15% for export industries should be brought down to below 5%, as in other countries. Incentives like liberal working capital norms, longer repayment schedules for loans etc. should be implemented immediately.

When the problems are analyzed, it is important to discuss the market strategy being adopted by the companies. It is more important than ever to have alertness, flexibility and aggressive marketing capabilities. Only companies who are able to adjust to the constantly changing scenario in the competitive world markets can survive. The blind acceptance of extending open credit without analyzing the credit worthiness of buyers should be avoided. The unethical practice of undercutting each other with prices and other terms ought to be stopped. The companies should share the market information among them and try to participate in Trade Fairs around the world. While the Government is expected to introduce and implement various measures to solve the problems faced by the industry, it is imperative that the industry also reciprocates with better management systems.

It is a welcome move on the part of Government to set up the Granite Development Council with experts to help the industry to solve the present problems and encourage the sector. To meet the ever demanding needs of the industry, the associations should be strengthened and consortiums among the companies be formed. A centralised database ought to be maintained with details of the world market pertaining to the stone industry, which will help monitor the marketing trends and economical scale of the operations.

Today’s subdued market situations are due to several factors. The economic crisis in Indonesia, Japan, Korea, Taiwan, Italy, USA and Thailand affected the exports to these countries. Also the recent introduction of synthetic stone like materials is affecting export. The competition from China for rough blocks and finished products like slabs and monuments has contributed to the slow growth of exports from India.

However the future for the granite industry for both blocks and finished products is encouraging. India can improve its export performance as the processing capacity is very low, with less than 5% of gangsaws installed in the world. The increase in
export of blocks and finished products is an indication of the encouraging signs of market improvement. In spite of so many problems, the demand for granite product is increasing everywhere with consistent growth rate of consumption.

India, which is blessed with various types of unique colours and large deposits of granite, is certain to get its due share in the ever-growing world marked. Many countries are worried about the strong entrance of China in the market but the fact is that China landed up importing more rough blocks and finished products due to high domestic demand. It is widely expected that China will import more of blocks, slabs and tiles and export less of them outside.

The world wide improvement of transportation system with more and more bulk vessels will also help many countries to import more thereby our exports.

The demand for stone products is expected to continue increasing for the simple reason there is still a low level of consumption in many countries. The share of the stone industry is just 5% out of the world’s annual consumption of 5 billion square meters and ceramics; wood, glass etc. occupy most of the market. Even a moderate increase of another 5% will increase hugely the demand for stone products.

The market demands for granite industry is increasing in countries with high annual growth rate, Spain whose import increased by 45%, and other countries like China, Hong Kong, East Europe etc.

The export market for finished products and particularly for monuments is picking up in Europe and Australia. The consistent quality control and strict adherence of the delivery schedules of the buyers is most important to get more orders. The processing industries should try to concentrate on low thickness and pre heated surface materials, which is getting more and more popular. The construction materials, with thickness less than 10 mm which will weight not more than 20 kg is getting more popular. Hence such new products should be developed with upgrading of technology with the support of finance to sustain the growth. It is true
that Indian industries try to economize their operations to make their products competitive in the world market.

The market potential is abundant and there are excellent prospects for the Indian granite industry to get its due share in the world market. The professional and realistic approach towards solving the practical problems and careful planning of facilities by the Industry and Government can make India the leading exporter of the world market. We have challenging years ahead but the potential for growth is beyond any reasonable doubt.
6.3 SUGGESTIONS

The following suggestions have been offered for the development of Granite Industry:

1. **Promotion of systematic and scientific mining.**

2. **Striking balance between environment and mineral development.**

3. **Proper measures for development of mineral based industries.**

4. **Granting industry status to the mining and quarrying of granite.**

5. **Export promotion and quality standardization.**

6. **Development of infra structural facilities.**
   - Approach roads to mines and quarries.
   - Welfare amenities for mine workers.
   - Development of mining estates.

7. **Effective Implementation of HRD practices.**
   - Training of persons working in mines.
   - Training and study tours for the departmental officers.
   - Developing modern granite mines which will serve as a model.

8. **Need for amendments in mining and minerals (regulation and development) act, 1957.**
   - Mining leases.
   - Quarry leases.
   - Better royalty collection through contracts.
   - Control of unauthorised mining and mineral movement.
9. Steps are to be initiated towards the dissemination of Information with regard to Granite processing and exports.

10. Demystification and Simplification of licensing and renewal procedures of mining leases.

11. To declare existing Centre for Development of Stones (CDOS) at Jaipur as a National Centre of Excellence (N-CDOS) to support dimensional stones covering granite, marble, sandstone, kotastone, slate etc. - with adequate financial support from Ministry of Mines and Ministry of Commerce, Government of India.

12. Considering large resources of granite in South India (AP, Karnataka, Tamil Nadu and Kerala) and major contribution of granites to Indian exports of dimensional stones, a National Centre for Excellence for Dimensional Stones, especially for granite be established in South India with the support of Ministry of Mines & Ministry of Commerce, Govt of India, State Governments and United Nations Industrial Development Organisation (UNIDO) in association with All India Granites and Stone Association (AIGSA).

13. To strengthen National Institute of Rock Mechanics and extending its services to granite quarrying areas in South India for R&D support.

14. To constitute a separate Export Promotion Council for dimensional stones considering immense potential for boosting exports.

15. To assist and strengthen AIGSA in developing permanent infrastructure for international exhibitions.

16. UNIDO under National Programme for development of Stone Industry (NPDSI) and International Company for Mines and Trading (ICMT) along
with Ministry of SSI and Department of Industrial Policy & Promotion, Government of India should continue their support and assistance to granite, marble and other stone segments through Centre for Development of Stones (CDOS) and AIGSA.

17. CDOS should extend its activities to other stone producing states including North Eastern states.