1. Industrial development is a sin-quo non of economic progress. The high industrialisation make more products and services available in the market. This is again beneficial for common man in the shape of increasing availability of goods at fair prices. It promotes the higher standard of living in the society. Industrial development is also essential to provide the required support for the agriculture and for the development of infrastructure facilities, energy and transportation.

2. Industrialisation plays an important role in correcting regional imbalances and reviving the industrial growth to lead the economy once again to the take-off stage. For the same reason the government is encouraging dispersal of enterprises and promoting the enterprises to set in backward areas. The incentives of special concessions and facilities are being offered. However the policy of dispersal is still not implemented effectively therefore there are large gaps in the industrial development. The investigation of the present study also reveals these facts.

3. The policy and programmes for industrial development is persuaded for many years.

4. It is true that the SSI is growth engine of economic development which is also called nursery of entrepreneurs talent. It has wide strength, mostly MSME is labour intensive and less capital inclusive.
This is quite suitable in Indian circumstances to deploy the available manpower

5. Economic thinker and mostly locational thinkers were analysed the location of enterprises in their perspectives. Most common view from all of them is infrastructure for industrial development, i.e. market, road, electricity, capital, labour supply, transport, communication, availability of resources and financial institutions.

6. Considering the resource base available Industrial Development in the taluka started late by 1977-78 with the establishment of a Co-operative sugar factory. As the district headquarter Kolhapur is far away from the taluka, the nearest city Belgaum (Karnataka) has provided market place for the majority of the enterprises in the taluka. The economic development in the taluka is mostly based on cooperative development. Taluka has 14 branches of nationalised banks. However, these financial institutions have not supported greatly for the industrial development of the taluka. Majority of the enterprises have taken loan from the banks situated in Belgaum City. Very few newly established enterprises are financed by the branches of national banks in the taluka.

7. Chandgad taluka is a treasurer of Physical and Human resources (p.150 to 176) It has good potential for agriculture (p.173-176). Numerous cash crops (p.156) are available in the taluka. There are four historical forts (p.168) and one hydro electricity plant which is generating 60 M.W. electricity at cheaper cost and three middle projects (p.153), the taluka has the second largest forest in the district as compared to the other talukas (p.167) boxite mines (p.163) and thousands of medicinal plants are available in the forest (p.168) It is found that all these physical potentialities are not properly used.
8. Taluka has 1,80,781 population in which Male population is 88,924 (49.19%) and Female population is 91,857 (50.82%). (p.171). Most of the people are engaged in agriculture and allied activities (p.171). However, the agriculture is major source of employment in the taluka (p.171). It is found that there is shortage of skilled labour (p.160), skilled laborers came from outside of the state. Though there are two Industrial Training Institutes (ITI’s) in the taluka, they are insufficient to provide required quality employees to the industrial sector. There are twelve Junior Collages and four Senior Collages but none of them provide professional education (p.160).

9. Taluka is not much industrialized because of weak infrastructure facilities (p.169), scarcity of skilled labour and inadequate availability of market (p.216). Most of the business owners are unaware about government facilities (p.249), and they are working traditionally. It is also observed that almost all enterprises are micro, small and service enterprises (p.209).

10. It is found that the industrial development of the Chandgad taluka is initiated by Cooperative sector. Primarily the development has taken place in cooperative sector. This has encouraged the development of few private sector enterprises in the taluka. Most of them are proprietary concerns and few of them are companies and partnership firms (p.209). The cooperative organizations in the taluka includes three dairies, one sugar enterprise, one fertilizer and one Cashew processing enterprise. The enterprises in cooperative sector have generated number of employment opportunities in the taluka.

11. The proprietary enterprises are established during last 30 years (p.201). Basically proprietary enterprises are being managed by family members with few wage employees. However, the
management of the companies is entrusted to board of directors and other executives. The government of Maharashtra has introduced many schemes for the development of enterprises in the backward areas (p.179). However the benefits of such schemes have not reached to the entrepreneurs due to ignorance and lack of proper awareness.

12. The industrial structure of the taluka is disintegrated and scattered (p.211). There are five circles and each circle has its own type of enterprises (p.213). It is found that the enterprises in the taluka are developed on the basis of available resources. Kowad circle has large number of rice and oil mills because of ample production of rice. It is called as rice depot of the taluka (p.214). Turkewadi circle has more number of engineering enterprises and metal enterprises because of already established large foundries in that circle and also due to adjoining Belgaum City market. Chandgad circle has large number of Cashew processing enterprises because of the adequate production of Cashew nuts in the circle, Date and Here circles have large number of poultries and oil and rice enterprises as there is favorable climate is available for such enterprises. However, there is still big gap in respect of their available and potential resources and their exploitation. Chandgad, Here, Turkewadi and Date circles are producing large number of ground nuts, sweet potato`s, potato`s which are simply sold in the market without any processing. There is greater scope for establishing of processing units for such agro-products.

13. It is also found that there is good link among the agriculture-horticulture and enterprise. This can bring about the industrial development in the taluka.
14. Majority of enterprises (63.43%) in Chandgad taluka are established during the last thirty years. Most of them were not registered in their initial stage. Later on they have got their enterprises registered in order to take the benefits of several government schemes. This has encouraged in the registration in last few years. It is also found that the majority of the enterprises are registered under Factories Act followed by Co-operative Act and Companies Act (Table 6.A.1, 6.A.2 and 6.B.14).

15. It is found that the pace of employment generation is increasing year by year. Until 1984 it was quite good because the sugar factory was established in the year 1977. It was slowed down during 1984-89. Further it has increased from 1990 onwards because of increasing the number of enterprises in the taluka (Table 6.A.2). It is found that the majority of employment is generated in the sugar enterprises followed by Cashew processing enterprises and Foundry and metal enterprises. The majority of employees are educated up to SSC (p.6.B.11). Many of the enterprises have employed casual employees (Table 6.B.10) and most of them are from local area (Table 6.B.9).

16. Total 97 enterprises of the taluka have taken the loan from banks. The remaining enterprises have raised funds from their own sources. Almost all enterprises are established on their own land (Table 6.B.12).

17. It is found that the enterprises in Chandgad taluka have both local and outside customers. Engineering enterprises, oil and rice enterprises have more local customers, poultries and Cashew processing enterprises have both type of customers whereas Textile enterprises, Foundry and metal enterprises are exporting their products outside the taluka and the state (Table 6.B.3). Only 10% of
enterprises advertise their product through newspapers. Out of all 55.45% enterprises, engineering enterprises are undertakes job work from foundry units and oil and rice enterprises are processes from the raw material supplied by customers (*Table 6.B.3*).

18. Merely 47.27% enterprises have associationship with industrial organization, whereas very few big enterprises having trade unions (*Table 6.B.4*).

19. Majority of the enterprises are working regularly e.g. poultries, engineering enterprises and Foundry and metal enterprises. Whereas oil and rice enterprises, Cashew processing enterprises are working seasonally for four to eight months in a year (Ch. 6. B.5). Almost all enterprises are using hydroelectricity (*Table 6.B.6*).

20. It is found that the 46.36% of enterprises have kept their accounts and have got audited. Almost all the cooperative undertakings have maintained their accounts and got them audited. The enterprises which are working at micro level are not keeping their accounts. These enterprises thinks that maintaining of books of account is not relevant and also it requires high skill. All these enterprises are small, household and family business units (*Table 6.B.7*).

21. It is found that the majority (57.27%) of enterprises are using raw materials from both local and outside areas. 42.73% enterprises are using raw materials only from outside the local area. This is because of insufficient availability, poor quality and high cost (*Table 6.C. 3*).

22. The enterprises in the taluka are scattered throughout the taluka. Mostly the *Turkewadi* circle has large number of enterprises in the taluka because of close market facilities, infrastructure and better
communication facilities. However there is still considerable gap as regards availability of resources for industrial development. Specifically Chandgad taluka has good potential of Cashew processing enterprises, Kowad Circle has good potential of Oil and rice enterprises, Here circle has good potential of groundnut and Date circle has Cashew nut where Cashew processing enterprises can be developed in the taluka (Table 6.B.2).

23. Most of the villages in the taluka are connected with roads. However, the quality of these roads is too poor which needs to be improved with top priority (Table 6.C.4.1). Most of the enterprises (33.36%) are using water from wells followed by boarwells, Jackwells, Tanks and rivers (Table 6.C.4.2).

24. It is found that the government facilities such as subsidies, rebate on tax, exemption of electricity, primarily infrastructure and technology can be available for the taluka (Table 6.D.1). However, very few (5.45%) of the total enterprises have taken benefit of these facilities. All of them were co-operative undertaking (Table 6.D.1) Most of enterprises (60.91%) opineded political help for grant, 10% enterprises opineded about taking subsidy from government. It indicates enterprises require political help for the development (Table 6.D.2). However most of cooperative undertakings (5.45%) were mostly influenced by political interference (Table 6.D.2) in selecting or removal of employees and control over management.
7. B SUGGESTIONS

7.B.1 General Suggestions

1. Industrial development is important to overcome the problems of poverty and backwardness. It should be based on the utilisation of local resources such as materials, manpower, land, weather and geographic potential. It is observed by the study that the investment in backward areas in the past has not been adequate, mainly because such investment did not have effective linkages with local resources. Therefore we suggest to invest on the basis of resource availability for economic and industrial development. It is important to encourage investment by the public and the private to promote the spreading of ancillary enterprises.

2. The enterprises and government should earmark substantial resources for research and development to update technologies with a view to make optimal utilisation of scarce resources to increase production and services.

3. Industrial development is inter and intra disciplinary concept. It pertains not only to manufacturing but also infrastructure development, technological development and Socio-economic development. Therefore, we suggest to start with infrastructure development in order to bring about scientific, technological and socioeconomic development.

4. The industrial development of India is not even in all the regions. There are imbalances in the industrial and socio-economic development. If industrial development in the country is to proceed rapidly in a balanced manner, greater attention should have to be paid to the development of those areas which have so far remained backward. We suggest to create Special Industrial Zone (SIZ) on the line of Special Economic Zones (SEZ) in such backward areas. Government should give special assistance in the form of concessions such as excise duty, tax exemption, subsidized
electric supply etc. for the optimum utilisation of scarce resources. This will lead to improve the services such as banking, transport, communication, insurance, hoteling and hospitality in the backward areas. The further research at micro level should be undertaken to examine the possibilities of establishment of enterprises.

5. For any industrial undertaking to operate profitability it must have easy access of raw materials, labour, power and markets. We suggest to give importance to research and development in enterprises. This will helps to reduce the cost and increase the production in the future. It will eventually benefit to the small and medium enterprises of the country.

6. Government policy should ensure the preservation of ecological balances. The government should encourage the policy of dispersal of enterprises effectively.

7. Development plan should clearly point of how each region (taluka/block) can be developed. The limitations of development should defined. Within taluka/block land should be zoned for principal land uses- including agriculture, forest and villages/towns in order to guide development to the most appropriate locations. Categories of land should be planed for life time. The plan should ensure that there is an adequate supply of land in accessible locations.

8. Innovation and Entrepreneurship hold the key to enhance the role of small, micro and medium enterprises in the economy. A countrywide programmes on entrepreneurship and innovation must be launched. Entrepreneurship should be promoted as a preferable choice in career development. The research and special training programmes should be arranged in this direction. There should be at least one institute such as a
IRMA, in each of the states to impart training in industrial development in rural areas.

9. Though the DIC is playing major role in the development of each district. The support is found to be inadequate in backward talukas. We suggest that DIC should give more support for the enterprises in these areas in the form of technology, subsidies, training and development.

10. DIC and MIDC should maintain block-wise data on the industrial establishments. This will give real picture about how many enterprises are established, how many are functioning and how many are closed etc.

11. Chandgad taluka has largest mango production and Cashew nut production in Kolhapur district. There is very good scope for development of cashew and mango on commercial basis. This will encourage the establishment of processing units both in case of cashew and mangos.

12. Chandgad taluka has large stock of boxite. The percentage of aluminium laterite in boxite is highest (47-52%) in the district. The INDALCO Alluminiaum enterprise, established 55 k.m. away from the mines, which was using mine for last 30 years on 139 hectares of land. It is found that further 200 hectares land mine is available in the taluka which has still remained unused. Which needs to be exploited. There is also scope to make contract with nearer talukas for collecting raw boxite.

13. The industrial development accompanied with the finance, market, labour and infrastructure facilities. It is found that the finance, market and infrastructure facility is not sufficient in the taluka. There is always shortage of electricity on such a background industrial growth gets hampered. Therefore, we suggested that the government should improve
the infrastructure facilities. Nationalised banks should come forward to finance the enterprises in the taluka.

15. Taluka has large manpower, but there is shortage of skilled and educated manpower. So that the enterprises are fulfilling their need of skilled workers from outside the local area. We suggest that educational institutions and government to establish more industrial training centres in the taluka. The existing educational institutions should have interaction with enterprises to understand their manpower needs.

16. The cooperative enterprises should be free from political interference. The autonomy in the working and professional management are two preconditions for their success.

17. Government and politics can play important role in economic development of the region. We suggest that the political leaders of the taluka should take interest in the development of the block, use their political power to bring new enterprises and encourage the people to come forward to establish new enterprises.

18. Taluka has number of water streams. As the Kerala government proved, there is good scope for generating hydro electricity from the streams water. Apart from this, the construction of tanks will conserve the water and it will beneficial to wild animals and birds, it can be used for the cultivation of horticulture crops. The same water can be used for agriculture purpose after generating electricity.

19. The taluka has conducive weather for rearing milch animals. As a result about 1,80,000 ltrs of milk is collected daily in the taluka. It is found that all cattle’s rearing is on traditional basis which results in low productivity. There is good scope for further development in this field. This occupation
can be further strengthened by applying modern method of cattle rearing. The milk production will get doubled.

20. It is found from the study that there is proper link between agriculture – horticulture and industrial development in the taluka. We suggest to strengthen this link further for future development.

7.B.2 The conclusions and suggestions relating to resource base of taluka discloses the following.

7.B.2.1. Agriculture

Conclusions:
1. Majority people in the taluka are agriculturalists. Sugar cane is cultivated in the taluka as a main cash crop. It is observed that the production of sweet potato’s, potato’s, nachni, rice, groundnut is decreasing slowly.

2. The taluka has about 59622 hectares cultivated land in which irrigated land is 4594 (20%) hectares. The irrigation facilities are improving at higher rate in recent times. Good number of projects are completed.

3. All crops are being taken on traditional basis which results less yield. Again, average landholding in the taluka is 1 to 2 acres.

Suggestions:
1. There is much scope for cultivating the important crops on commercial basis. Potato’s and sweet potato’s, can be used for producing sugar which have medicinal value. Therefore we suggest to establish processing units to manufacture various products from this basic raw material i.e. potato’s and sweet potato’s.
2. Production of such crops should be on scientific. The agriculture department and agriculture universities can play major role in this direction. It has great potential for generation of employment as well as encourage income of the farmers.

3. There is good scope for cultivating ground nut on commercial basis. This will fulfill the need of oil. The big oil mills on modern lines should be established in place of existing small and traditional oil mills.

4. The completion of irrigation projects in time will helps to increase the land under irrigation.

### 7.B.2.3 Horticulture

**Conclusions**

1. The large area of the taluka is covered by red laterite soil, which is useful for the cultivation of Cashew, mango, jackfruit and chikku trees.

2. All these trees are cultivated in the barren land of the farm. The taluka ranks first in producing Cashew nuts in the district. About 20000 tons of raw Cashew nuts are produced annually in the taluka.

4. Jackfruits and mango produced in the taluka have good demand in Mumbai, Pune, Kolhapur and Belgaum market, but all these fruits are wild crops.

**Suggestions :**

1. Considering geographical background and availability of water, soil and weather condition, there is great potential for horticulture production on commercial basis in the taluka.
2. Chandgad taluka is producing large amount of Cashew nuts for which 16 cashew processing enterprises are working. By considering the fact that entire area is having potential of cashew trees, the plantation of cashew trees can be doubled. Accordingly the number of cashew processing enterprises can be increased. This will generate more employment opportunities for the people of the taluka.

3. Cashew apple is another source of income which is being neglected. It can be used for production of fenny, alcohol and wine. Apart from this the apple contains precious minerals that can be used for medicinal purpose as well as industrial purposes.

4. There is good scope for producing mango, jackfruits and chikku on commercial basis. It will also helps to establish of the processing units for producing different products.

7.B.2.3. Forest

Conclusions

1. Chandgad taluka has the second largest forest area in the district after Radhanagari. The forest is thick and have different types of trees. The forest is treasurer of many types of valuable medicinal plants. (Research Paper by J.G. Fagare, R.N. Naik, 2009) There are more than 1000 types of herbal plants (Sakal News Paper Dr. Bachulkar, 2003).

2. There are large number of wild animals and birds, different categories of wild fruits, flowers, and valuable natural locations. The real value of this natural resources have not yet been exploited.
Suggestions:
1. The forest has valuable medicinal plants, which are not properly used. Conservation and cultivation of these plants will open another occupation for the local people. This will give large income through its commercialization. There is also good scope for the development of medicinal tourism which will contribute in economic development of the taluka.

2. Forest gives teak, fruits, flowers which have economic value in the market. There is tremendous scope to conserve and cultivate these horticulture crops on scientific and commercial lines.

3. The forest covers large number of wild animals, birds it indicates there is good scope to establish a small sanctuary that may attract tourism in the taluka. The enterprises like bee keeping, sericulture can be started.

4. Forest department should take proper care to conserve its valuable trees from cutters and should plant medicinal and horticulture trees in the forest. The valuable aromatic plants can be another new area in the development of horticulture in the taluka.

7.B.2.4. Forts

Conclusions
1. There are four forts in the taluka. Pargad, Mahipalgad, Kalanandigad and Gandharvagad. These are beautiful points in the taluka. All the forts in the taluka are surrounded by forests and have their own identity. Also Pargad fort has much cold in Summer.
Suggestion

1. All these forts have great potential for tourism development in the taluka. It is necessary to develop hospitality, finance, transportation, insurance and other allied services to develop these places as attractive tourist centers.
7.B.3 MODEL INDUSTRIAL DEVELOPMENT PLAN

After studying the industrial development - pace, pattern and gaps we suggest the resource based model for industrial development of Chandgad Taluka. The model will be useful for any block or region for its industrial development.

DEVELOPMENT PLAN

1. Identification, measurement of all resources of the taluka
2. Classifying the taluka in sub-blocks
3. Identifying gaps in the sub-blocks
4. Provision of Infrastructure and other support services
5. Formulation of specific project to bridge the gaps
6. Development
### 7.B.4 MODEL INDUSTRIAL PLAN FOR CASHEW ENTERPRISES IN CHANDGAD TALUKA

#### 1. Present Situation

1. **Weather and Environment**
   Conducive climate and environment for cashew production

2. **Cultivation**
   Traditional cultivation

3. **Production**
   Around 20,000 tons of raw cashew nut

4. **Enterprises and Employment**
   16 Cashew Processing enterprises are working
to process 5,000 ton raw cashew nut and employed 1,459 people

5. **Gaps**
   1. Around 15,000 ton raw cashew nuts are not processed
   2. Around 1,00,000 tons cashew apples are not processed
   3. Cashew nut shells are not properly used

#### 2. Scope for the Cashew cultivation and Processing

1. **Investment**
   Less investment is required

2. **Scientific Cultivation**
   The scientific cultivation can increase the production further

3. **Land**
   27,206 hectares of forest barren land is available which is useful for cultivation of cashew trees.

4. **Water**
   Number of water streams originated from the forest, four rivers are flowing from the taluka and the cultivation of cashew requires less water.

5. **Period**
   Cashew crop needs five to six years only to start yielding

#### 3. Scope for special Industrial Development

1. **Processing Enterprises**
   If cultivation is undertaken scientifically in present land it will increase yearly production up to 30,000 tons and if the all forest barren land is brought under cultivation it will increase the production up to 50,000 tons. This will induce further to establish few more processing enterprises in the Taluka.

2. **Winery enterprises**
   Cashew apples can be used for production of wines and spirits. At present about 1,00,000 tons apples are produced in the Taluka. An independent industry for winery production can be established. Further research should be undertaken in this respect.

3. **Color Enterprises**
   Cashew shells oil is one of the important components in the production of color. The same oil used in ship building. This shows high market potential for cashew shell oil. One more (Oil extracting) enterprise can be established in the taluka.

We strongly recommend that, along with Chandgad taluka, Ajara and South west part of Gadhinglaj taluka should be declared as a **CASHEW PROCESSING ZONE** of the District.