INDUSTRIAL POTENTIAL IN THE DISTRICT

The district has reasonably well developed infrastructural facilities. It has also reasonably good institutional support particularly in the field of finance and skilled labour. Though it is situated just 70 kms from the State capital and has good infrastructure facilities like railway, national highway, industrial Estates/industrial areas, no substantial industrial investments have taken place in the recent past. The poor industrial growth is due to problems concerning to power and water availability. The situation is expected to improve in the near future.

Eight taluks of the district were placed in Zone II and 2 in Zone III with 10% and 15% investment subsidies respectively in the 1982 industrial policy. Later, 9 taluks were placed in zone III and 1 in Zone II with 20% & 15% investment subsidy in the 1990 industrial policy. Under the new policy of 1993 all the 10 taluks have been put in Zone II with 25% investment subsidy besides relaxation in power cuts, sales tax exemption etc.

The district witnessed rapid industrial growth in the early 80s when a number of HMT ancillaries were set up. The establishment of the KSFC office in the district boosted industrial development, as KSFC & DIC jointly organised entrepreneurial awareness programmes in rural areas. As a result, groundnut based industries in Pavagada and Sira taluks, coconut based industries in Chikkanayakanahalli,
Tiptur, Turuvekere and Gubbi taluks, engineering industries in Tumkur were established.

A number of studies have already been conducted by different agencies of the potentials of the district. DIC conducted a techno-economic survey in 1975 and SIEThas conducted an industrial potential survey in 1977. Recently, TECSOK has done a techno-economic survey in 1987. Several projects have been identified for the district in the following areas:

Agro-based industries like coir, groundnut oil expellers.

Mineral-based industries Like granite cutting and polishing, jelly crushing, stoneware pipes, table moulded bricks.

Demand-based industries like cattle feed, poultry feed, bicycle parts.

Textile-based industries like handlooms, powerlooms, silk reeling and twisting.

During field visits in Tumkur, personal discussions were held with the Branch Manager, KSFC Tumkur, Deputy Director, DIC, Lead Bank Officer (State Bank of Mysore), District Statistical Officer, Senior Geologist, Mines and Geology, Asst. Director of the Department of Horticulture, Section Officer, Dept. of Agriculture, Extension Officer, Dept. of Sericulture and Asst. Director, Dept. of Tourism. Based on the discussions with the above officers and analysis of the available data, industrial potential that has been identified in Tumkur is presented in the following pages.

**FACTORS CONSIDERED FOR IDENTIFYING CANDIDATE INDUSTRIES**

The following important factors were considered for identifying suitable and profitable lines of manufacture in Tumkur District.
1. Resources - both Human and Material, such as Agriculture, Horticulture, Livestock, Minerals, Forest, Sericulture etc.

2. Infrastructural facilities available for industrial development.

3. Present Industrial Structure.

4. Demand for various goods and services.

An analysis of Human Resources assumes a significant role in the context of selection of suitable products for development in an area owing to the fact that this resource is indeed the key to successful industrialisation. As a matter of fact, it is the Human Resource, which shapes and controls the natural resources in industrial development, besides providing market for various goods and services produced in the area. It may not be out of place to mention here that ways can be found to overcome many material deficiencies if the human talents are highly developed and motivated to grasp and harness the industrial opportunities available and also if the environment of social, political and economic institutions is favourable. Nevertheless, if the human skills and institutions which pave the way for effective industrial production are not present in an area, no amount of natural resources will lead to successful industrialisation of that area. In view of this, the pertinent parameters relating to Human Resources that have merited attention of the Research Scholar in the identification of appropriate product lines in Tumkur district are its total population, its growth rate, male-female composition literacy rate, occupational pattern, entrepreneurial orientation etc.

The study of Natural Resources has revealed that Tumkur district is endowed with rich Agriculture, Horticulture, livestock and mineral resources. Fisheries and forest resources are not significantly available at present for industrial exploitation.
Sericulture is a growing activity in the district. Climate and soil of the district are suitable for the development of sericulture which offers scope for the development of these industries. Paddy, Ragi, Jowar, Sugarcane, Groundnuts, Cotton, pulses and oil seeds are the important agricultural produces which could be exploited for industrial purpose. Mango, Banana, Guava, Potato, Tomato, Arecanut, Coconut, Chillies, Onion, Tamarind vegetables, spices and other crops are being extensively grown in the district and can be utilised for setting up of a number of small scale units. The district had a livestock population of 18,73,400 and a poultry population of 5,93,700 as per 1990 livestock census. About 2 lakh of hides and skins and 300 tonnes of bones are available in the district every year. Important minerals available in the district are Manganese, Limestone, iron ore, quartz, corundum, dolomite, clay, graphite, soap stone and granite. The survey has revealed that these resources particularly those from agriculture, horticulture, livestock etc., are not fully utilised at present for industrial purpose. Hence, there is excellent scope for the development of many small scale, tiny and household industries based on these resources. A threadbare analysis of these resources has been done and details are indicated in the chapter titled "Resources Endowment of Tumkur District" of this study.

Availability of adequate infrastructure facilities plays a crucial role not only in the present industrial development of an area but also in the development of industries in future. As such, before embarking upon the identification of suitable product lines for development in Tumkur district a study of the existing infrastructure facilities has been explained in the chapter IV of the thesis. The study has showed
that the district does not have perennial sources of water supply. Tanks and wells are the main sources of water supply. There is, therefore, scarcity of water in the district. It is further found that Hemavathi river water is likely to be supplied to Tumkur and Tiptur towns before the end of 1995. Thereafter, there will be no water problem for starting industries in Tumkur and Tiptur. Apart from water scarcity, the district also suffers from power shortage like any other district in the State. Tumkur district has no power generating stations. The district receives power from Sharavathi and Mahatma Gandhi Hydro electric power stations and there are five power receiving stations in the district. New small scale units are exempted from power cuts for the first five years. The study on infrastructure facilities has further revealed that out of 10 taluks of the district, only 4 taluks have railway connection and major portion of the district does not have rail transport facility, which inhibited the economic development of this part of the district. However, the recent conversion of meter gauge railway line into broad gauge which is passing through Tumkur district from Bangalore to Miraj will boost the prospects for industrial development of the district.

As regards roads, there is considerable improvement in the district. The total road length has gone upto 7637 kms in 1992 from 4699 kms in 1980. The survey has revealed that Bullock-cart is the chief means of transport. Lorries are used for movement of goods between different towns. Tumkur city has no city bus services. Cycles and autorickshaws are the main means of transport. KSRTC runs regular buses from Tumkur to various taluk headquarters and other parts of the State. National Highway No. 4 passes through Tumkur.
Buses to Bombay and Poona also pass through the district. The district has fairly well developed post and telecommunication facilities. However, entrepreneurship which is very vital for development of industries is lacking among the people of the district. It is, hence, suggested that EDPs are to be conducted in all the taluk headquarters of the district. There is a good net work of banking institutions to take care of the financial needs for the development of industries. State Bank of Mysore is the lead bank of the district.

The study of the demand for various goods and services in the district has revealed that the bulk of the requirements of the people in the district is at present met by supplies from outside the district. A number of demand—based industries have, therefore, been identified and suggested to cater to the requirements of the district.

Based on the analysis as explained above, as many as 475 candidate industries have been identified, as having scope for development in small scale sector. Of these industries, 105 are resource—based, 329 demand—based, 21 household industries, 20 are service type of industries, In addition, 25 medium and large scale industries are also suggested. The categorywise list of industries identified is given below:

A. Small Scale Industries
   I. Resource—based industries
      a. Agro-based products
         1. Mini rice mill
         2. Poha mill
         3. Mandakki
         4. Tooth powder from paddy husk
         5. Ragi malt
6. Weaning food from ragi
7. Flour mills
8. Corn flake
9. Vermicelli
10. Dessicated coconut powder
11. Vegetable milk/curd from ground nut
12. Oil mill (coconut)
13. Oil mill (Groundnut/sunflower seed)
14. Condiments
15. Scented supari
16. Tamarind juice concentrates
17. Coir products such as ropes, door mats, carpets etc.
18. Hard board
19. Particle board
20. Coconut shell powder
21. Activated carbon
22. Starch from tamarind seeds
23. Extracts of essential oil from citronella grass
   lemon grass, palmroses grass etc.
24. Automobile gaskets from coir pith
25. Soapnut powder
26. Silk reeling
27. Silk twisting
28. Scented Tobacco
29. Khandasari sugar
30. Groundnut decortication
31. Dhal mill (Modern)
32. Roasted and salted groundnuts
33. Popcorn
34. Papad
35. Burfi from Groundnut
36. Pickles and chutnies
37. Baker's flour/Atta
38. Absorbent cotton
39. Cattle feed and poultry feed
41. Briquatted fuel
42. Fried gram
43. banana chips
44. Mango cereal flakes
45. Dehydration of grapes
46. Banana powder/toffees
47. Tuiti/fruity from papaya
48. Fruit Bars/Toffees
49. Mushroom cultivation
50. Rubberised coir products
51. Coconut defibring
52. Tomato ketchup/sauce
53. Fruit juice powder/concentrates
54. Fruit juice/squashes, syrups etc.
55. Mango seed oil
56. Vinegar from fruit juice/waste
57. Mango pulp
58. Tomato paste/powder
59. Dehydration of vegetables
60. Soft drinks in standy pack/pouches
61. Potato chips
62. Processed spices
63. Coir brushes
64. Straw board
65. Coir curling
66. Milton from groundnut
67. Protein isolate from groundnut
68. Tomato juice
69. Tomato soup
70. Tomato chutney
71. Banana clarified juice
72. Energy food from ragi
73. Cereal flakes from rice
74. Raw silk thread
75. Colouring of raw silk thread
76. Coconut water
77. Coconut cream
78. Coconut shell ice cream cups
79. Coconut vinegar
80. Expansion joint from coconut pith
81. Adhesive from Tamarind seed kernel

(b) Mineral-based Industry
1. Granite stone cutting and polishing
2. Granite tiles
3. Stone crushing (Jelli)
4. Mineral Pulverising
5. Stoneware pipes
6. Table moulded bricks
7. Hydrated lime
8. Glass industry
9. Country bricks
10. Refractory bricks
11. Roofing tiles
12. Mini cement plants
13. Burnt lime
14. Chewing lime/scented lime
15. Ferrites

(c) Livestock-based products
1. Tanning of hides and skins
2. Bone meal
3. Druggets from Wool
4. Milk products and milk chilling plant
5. Poultry farm
6. Meat canning
7. Poultry Dressing
8. Egg powder
9. Dairy farm
B. DEMAND BASED PRODUCTS

(a) Food and Allied Products
1. Bakery products
2. Soft drink and aerated water
3. Confectionery
4. Readymade mix for making jalebi, Gulab jamoon, vada, idli, Dosa etc.
5. Ice Cream and Ice Candy
6. Coffee roasting and grinding

(b) Textile Products and Hosiery
1. Hosiery items like cotton vests, briefs, children's underwear garments, socks etc.
2. Shoe laces and file tags
3. Stove wicks
4. Stiff collars
5. Surgical bandages
6. Woven labels
7. Readymade garments
8. Embroidery
9. Nylon socks
10. Textile, dyeing and printing
11. Woollen sweaters, mufflers, caps etc.
12. Sewing thread reels and balls

(c) Wooden products
1. Bullock carts (improved type)
2. Wooden decorative doors and windows.
3. Wooden furniture
4. Wooden electrical accessories
5. Wooden packing cases (Assorted sizes)
6. Wood cutting and planing
7. Wooden toys
8. Wooden meter boards
9. Drawing boards
10. Wooden coat hangers.
(d) Paper products
1. Paper cups and plates
2. Paper envelopes, file covers and file boards
3. Paper board cartons
4. Exercise books, registers, letter pad etc.
5. Gummed paper tape
6. Corrugated card board boxes
7. Printing and binding
8. Handmade paper
9. Drinking straw
10. Paper tubes for agarbathi packing
11. Paper bags

(e) Rubber products
1. Hawai chappals
2. Tyre retreading
3. Tread Rubber
4. Tube vulcanising
5. Rubber moulded goods
6. M.C. Sheets
7. Rubber stamp making

(f) Plastic products
1. Polythene film and bags
2. Polypropylene sutli
3. Welded plastic products such as covers for diaries, file covers, badges, folders etc.
4. Plastic bangles
5. Reprocessed plastic granules
6. Plastic cane manufacturing
7. PVC pipes and fittings
8. Injection moulded plastic goods
9. Plastic buttons
10. Ball pens and refills
11. Plastic egg trays
12. Disposable plastic cups
13. Polypropylene box strappings
14. Melamine tableware
15. Rigid PVC pipes
16. Monofilament yarn
17. Blow moulded plastic goods
18. H.M. Bags for shopings

(g) Chemical and Chemical products
1. Sanitary napkins
2. Mixed fertilizers
3. Safety matches
4. Agarbathi manufacturing
5. Writing ink
6. Wood polish/french polish
7. Solvent extraction plant
8. Bleaching powder
9. Textile dyes
10. Electroplating/Anodising
11. Sodium Bichromate
12. Detergent cake/powder
13. Cleaning powder
14. Printing ink
15. Cosmetics
16. White Deodorant
17. Room Refreshner
18. Cement paints
19. Paints and varnish
20. Redoxide primer
21. Camphor tablets
22. Sindoor (Kumkum)
23. Cold storage
24. Wax candles
25. Distilled water for automobiles
26. Boot polish
27. Black phenyle
28. Metal polish
29. Formulated perfumery compounds
30. Lubricating grease
31. Drugs and pharmaceuticals

(h) Glass and Ceramics
1. Cement hollow blocks
2. Cement products like ventilators, flower pots, etc.
3. Mosaic tiles
3. Chalk crayons
5. Cement concrete pipes, poles, blocks, slabs etc.
6. Lens grinding and polishing
7. Screen printing
8. Decoration of glass and ceramic wares
9. Scientific glass blowing
10. FRP items
11. Gem cutting and polishing
12. Glass mirrors
13. Crockery ware
14. A.C. pipes and fittings
15. Glass marbles
16. Plaster toys
17. Plaster boards
18. Plaster of paris

(i) Mechanical products
1. Agricultural implements
2. Aluminium utensils
3. Umbrella assembly
4. Builders hardware
5. Hospital equipments
6. Poultry equipment
7. Steel furniture
8. Wire nails and panel pins
9. Conduit pipes
11. Gem clips, paper pins etc.
12. Staple pins
13. Automobile spare parts
14. Cycle stands and carriers
15. Cycle chains
16. Wire mesh and wire netting
17. Wood screws
18. Wick stoves and lamps
19. Stainless steel domestic utensils
20. General engineering workshops
21. Gobar gas plants and other fabricated items
22. Destoner-food grain cleaning unit
23. Rolling shutters
24. T.V. stands
25. Wheel barrows (For agriculture)
26. Cold headed bolts and nuts
27. P.P. Caps and metal caps
28. Pressure stoves
29. Umbrella ribs and fittings
30. Metal doors and window frames
31. Aluminium collapsible tubes and rigid cans
32. Rice mill spare parts
33. Tractor trailers
34. Aluminium Furniture

(j) Metallurgy
1. Cast Iron Foundry
2. Non-ferrous Foundry

(k) Electrical Industries
1. Emergency lamps
2. Chokes and starters for fluorescent lamps
3. HRC fuses
4. Miniature lamps
5. GLS lamps
6. Soldering wire
7. Street light fittings
8. Small transformers
9. Voltage stabilizers
10. Bakelite electrical accessories
11. Domestic electrical appliances
12. PVC wires and cables
13. Black adhesive insulation tape
14. ACSR conductors
15. FHP Motors
16. Electrical stampings
17. Super enamelled copper wire

(k) Electronic products

1. Audio tape recorder and combination with radio
2. Dictation tape recorder
3. Car audio cassette players and combination thereof with radio
4. AM/FM Radio
5. Entertainment amplifiers
6. Public address amplifier
7. Microphones
8. Loudspeakers
9. Electronic flash guns
10. T.V. Booster amplifiers
11. Record players changers and combination with radio
12. Aerials/antennas for radio receivers and T.V. receivers
13. Electronic fan regulators
14. Electronic twilight switches
15. Electronic light dimmers
16. Electronic gas lighter cigarette lighter
17. Electronic lantern/emergency lamp/torch
18. Battery eliminator power packs
19. T.V. Tuner (Turrent type)
20. Electronic calculators (a) Packet (b) Table top type.
21. Intercom systems (other than using radio waves)
22. Electronic ignition system for automobiles
23. Pickup cartridges/styles
24. Electronic teaching aids (without computer/ peripherals)
25. Electronic analogue/digital clocks and time pieces
26. Driver unit for speaker system
27. Automobile beeper/flasher
28. Audio cassette (Blank)
29. Audio cassette (Duplicated)
30. Megaphone/ami speaker
31. Electronic siren/loud hailer
32. Electronic lock
33. Electronic door bell
34. Monochrome T.V. receivers
35. Cooking gas safety alarm
36. Electronic toys and games with/without ultrasonic control and without R.F. Radiation.
37. T.V. Games (without monitor)
38. Remote control switch
39. Automobile dipper
40. I.F. Pack for T.V.
41. Blank video cassette
42. Digital electronic watches including products incorporating digital electronic watches.
43. Volta meters
44. Electronic chiming devices and associated products
45. Control units for T.V. Tuner
46. Switching mode power supply
47. D.C. Power supplies
48. Invertors and convertors upto 50 KVA
49. Electronic multimeters
50. EPABX
51. Ammeter
52. Audio Generator/Oscillators
53. Electronic P.H. meters
54. Electronic industrial timers
55. Electronic battery charger
56. Flat chargers
57. Electronic single phasing preventors
58. Electronic line frequency meter
59. Electronic tachometer
60. Solid state voltage stabilizers
61. Electronic fire security alarm units with sound and light blinders only
62. Electronic insulation testers
63. Electronic cable fault locator
64. Electronic frequency sensative insect/rodent killers/repellers
65. Moisture meter (Electronics)
66. Soil testing meter
67. Water analyser
68. Electronic Watt meter
69. Electronic milk analyser
70. Logic probe
71. Static ringer for telephones
72. Semi conductor/ I.C. tester
73. Electronic salinometer
74. Electronic pain killers
75. Electronic temperature controllers/ indicators
76. Electronic liquid level controllers/ indicators/ flow transmitters
77. Electronic pressure controller/indicator
78. Electronic breath analyser/alcohol detector
79. Servo control voltage stabiliser
80. Uninterrupted power supply unit rating upto 25 KVA
81. Ultrasonic cleaners
82. Ultrasonic flaw detector
83. High voltage probe
84. Logic kit consisting of (a) Logic comparator (b) Current tracer (c) Logic probe (d) Logic clip
85. U.V. Fraser
86. D.C. Micro meters
87. Machine tool monitor XYZ
88. Microprocessor trainer
89. Digital Dash board equipment to display engine temperature, fuel content, speed, time and other parameters
90. Push button telephone dialler without telephone
91. Telephone amplifier for subscriber use
92. Printed circuit board
93. Deflection components for monochrome T.V. Receiver including EHT
94. Transformers and chokes for electronic applications
95. R.F./F. coils
96. Socket for diodes, transistors, integrated circuits cathod-ray tube, electronics valves, electronic crystals and liquid crystal display
97. Wire wound resistor
98. Switches (Other than reed type)
99. Jacks and Plugs for inter connecting cables used in electronics equipment system
100. Co-axial connectors
101. Electronic vibration meters/analysts
102. Electronic weighing scale upto 10 kg.
103. Ultrasonic probes
104. Electronic metal detectors
105. Flow metering instruments
106. Ultrasonic thickness gauge
107. Ultrasonic non-destructive testing units
108. Ultrasonic accelerometer
109. Ultrasonic level gauges
110. 8 Bit home/personal computers
111. Electronic token display unit
112. Solid state motor controller/speed controllers upto 5 HP
113. Digital/anologue electronic meter for voltage, current and resistance measurement including digital panel meters of the types mentioned.
114. Electronic continuity tester
115. Quartz timing movement mechanisms for electronic clocks and time pieces without alarms/chiming
116. Electronic earth leakage tester
117. Distribution amplifier
118. Attenuators
119. Signal splitters
120. Graphic equalizer
121. Frequency synthesizer
122. Electronic starters for tube lights
123. Electronic display unit for information/text
124. Electronic starters for motors
125. Electronic overload or underload protection units/ overload cut out motors
126. CRT-data display monitor (Monochrome)
127. Custom built control panels
128. Electronic signal conditioners
129. Electronic flow meters/instruments (without import of peripherals)
130. Micro/mini computers including personal computers
131. Solid state relays
132. Analogue/digital convertors
133. Microprocess of development kits
134. Software processing/data processing
135. Moving coil transducers/sensors
136. Thermocouple sensors
137. Electronic digital watt meter
138. Inter connecting cable assembly
139. Digital torque indicators
140. Digital strain indicators
141. Digital load indicators
142. Crimped wire connectors
143. ECG monitors with recorders
144. Defibrillators
145. Foetal monitors
146. PH sensors
147. Electronic teller system for banks
148. Gas analysers
149. D.C. Micro motors
150. P.C.B. Card assembly

(m) Leather Industries

1. Leather chappals/shoes
2. School bags
3. Leather/Rexin utility articles
4. Scooter covers, cycle covers etc.
5. Leather watch straps and allied products
6. Hand gloves
7. Leather garments
8. Leather shoe upper closed

(n) Miscellaneous products

1. Power looms
2. Handlooms
3. Beedi rolling
4. Woollen weaving
5. Silk Fabrics

(o) Household Industries

1. Pottery making
2. Stone cutting, carving and engraving for temples and buildings
3. Utility articles made out of stone
4. Plaster toys
5. Jewellery out of gold, silver, stone, shell and synthetic materials
6. Bamboo products
7. Cane work
8. Broom making
9. Photo frames
10. Processing and packing of cereals, pulses, spices, masala etc.
11. Bee keeping
12. Oil Ghani
13. Carpentry
14. Blacksmithy
15. Sealing wax making
16. toys and Doll making
17. Wet rice grinding
18. Tea repacking
19. Motor rewinding
20. Home scale jack fruit preparation
21. Fancy articles from coconut shells such as lampshades/goblets, flower vases, combs, ashtrays etc.

(p) Small Scale Service/Business (Industries related) Enterprises

1. Auto repair and servicing
2. Radio repairs
3. Watch repairs
4. Repair of domestic electronic appliances
5. Photo studio
6. Laundry
7. Dry cleaning
8. Photocopying
9. Job typing
10. Repair of tractors, diesel engines, pumpsets, hand pumps.
11. Cycle repairing
12. TV repairing and servicing
13. X-ray clinic
14. ISD/STD booths
15. Teleprinter/Fax services
16. Weigh bridge
17. Advertising agencies
18. Computer graphics/data processing
19. Marketing consultancy
20. Industrial consultancy
The list of industries indicated above may be taken as indicative and not exhaustive. Entrepreneurs who are interested in setting up of industries in Tumkur District are advised to contact the Director, the Small Industries Service Institute, Rajaji Nagar, Industrial Estate, Bangalore 44, for further information.

A detailed itemwise analysis of some of the suggested candidate industries is given below:

A. RESOURCE-BASED INDUSTRIES

1. RICE MILL (MODERN) : Paddy is a major food crop grown in the district. It is grown in an area of 32112 hectares during the year 1993-94. About 92643 tonnes of paddy were produced in the same year. Most of the existing rice mills in the district are having obsolete technology and need to be modernised. Hence, there is scope for setting up of a few modern rice mills in the district. Entrepreneurs who wish to set up modern rice mills can obtain technology from CFTRI, Mysore. Prospective entrepreneurs have to obtain a licence under the Rice Milling Industries (Regulation) Act, 1958, from the State Food and Civil Supplies Department.

2. POHA MILL (BEATEN RICE) : This is a consumer item and is used in households as a breakfast food and snack. It is made of paddy, which is available abundantly in the district. The process of manufacture consists of boiling paddy initially and then feeding to roller mill in wet condition. The rice thereby is flattened and husk is separated by sieving afterwards. There is good scope for beaten rice in the district and in nearby districts. There is, therefore, scope for setting up a few units for making beaten rice in the district.
3. **POTATO CHIPS**: Production of potato in the district during the year 1993-94 was about 1540 tonnes. Presently potatoes produced in the district are not put to much industrial use. There is good demand for potato chips in the district as well as in Bangalore, which is situated around 70 kms from Tumkur. Hence, there is good scope for setting up of a few units in the district for making potato chips.

4. **RAGI MALT**: Ragi is one of the principal crops grown in Tumkur district. It is grown in an area of 183862 hectares and produced ragi to the extent of about 212821 tonnes during the year 1993-94. Ragi malt is a nutritious food for children and adults alike. It is also comparatively cheaper than other similar beverages available in the market. There is good demand for Ragi malt in the district as well as in the nearby districts. Hence, it is suggested that one or two units may be set up in Tumkur district for manufacturing Ragi malt.

5. **RAGI BASED WEANING FOOD**: It is a well known fact that protein deficiency leads to several diseases. Diseases arising out of protein deficiency are very common among young children in our country as they are fed with protein deficient food/diet. Protein deficiency and malnutrition are particularly serious, among pre-school children in India. It is, therefore, imperative to make massive effort to supply food adequate in proteins and other caloric requirements to these children.

    CFTRI, Mysore, have developed weaning food rich in proteins. According to the projection made by DGTD the demand for weaning food in India during VI Plan was of the order of 22,000 tonnes. Presently weaning foods are being produced in the country by three firms. The market for weaning foods predominantly consists of buyers
from middle and upper income groups, specially in urban and semi urban areas. The product is eminently suited for lower income group people also. Besides, there is also scope for exporting weaning food to other countries. Hence, it is suggested that one or two units for manufacturing ragi based weaning food in Tumkur district may be set up. Process of manufacturing malted weaning food can be obtained from CFTRI, Mysore.

6. COIR PRODUCTS SUCH AS ROPES, DOOR MATS, CARPETS ETC.: Tumkur district is a major coconut growing centre. Coconuts are grown in all the taluks of the district. The leading taluk in coconut plantation in the district is Tiptur. 1,14,244 hectares are under coconut plantation in the district. About 101 crore nuts are produced every year in the district. There are units already manufacturing coir products in the district. However, looking at the demand for coir products in the State and in the country and its growth potential in the future, there is still good scope for starting a few more units in this line of manufacture in the district.

7. DESSICATED COCONUT POWDER: Dessicated coconut powder is used in the production of biscuits, sweets, confectionery, scented arecanuts etc. About 101 crore nuts are produced in the district per annum. There is good demand for dessicated coconut powder from the units manufacturing biscuits, confectionery as well as from the hotels. Besides, there is also good demand for dessicated coconut powder in northern states due to non-availability of coconut plantations in these areas. In view of this, it is suggested that a few more units maybe set up in the district for the manufacture of the product.
8. VERMICELLI: Vermicelli is made of Tapioca flour, wheat floor etc. It is a consumer product and is a valuable product nutritiously. Hence, there may not be any marketing problem. It is, therefore, suggested that a few units for manufacturing vermicelli can be set up in the district.

2. OIL MILLS: Groundnut and coconuts are cultivated extensively in the district. Groundnut is grown in an area of 1,67,133 hectares while coconut grown in an area of 1,14,244 hectares and production of these crops during 1993-94 was of the order of 1,52,311 tonnes and 101 crore coconuts respectively. Sunflower is also grown in an area of 5919 hectares and production was to the extent of 5287 tonnes during 1993-94. There is a very good demand for edible oils in the district and State as well as in the country. There is, therefore, excellent scope for setting up of a few oil mills for processing these oil seeds abundantly available in the district.

3. FRUIT PRODUCTS: Fruit products include items such as syrups, squashes, Jams etc. variety of fruits are grown on an area of 11680 hectares during 1993-94 in the district. Production of fruits was of the order of 1,41,216 tonnes in the same year. Those fruit crops are not put to much industrial use at present and are mostly consumed locally and by neighbouring districts. There is good demand for fruit products in the district and its neighbouring places particularly in Bangalore city. Moreover, there is also good export market for fruit products in U.K., U.S.A., Australia, Japan etc. In view of this, there is an excellent scope for setting up of a few units in the district for the manufacture of fruit products. Technical know-how for making fruit products is available with CFTRI, Mysore.
11. TOMATO KETCHUPS/SAUCE: Tomato is grown on an area of 783 hectares in the district. Production of tomatoes during 1993-94 was 10,086 tonnes. At present those are mostly consumed locally and in nearby districts. Tomato ketchup/sauce is a consumer product. There is a very good demand for this product in the district as well as in its neighbouring places. It is, therefore, suggested that a few units for making this product may be set up in the district.

12. TOMATO PASTE/POWDER: About 10,086 tonnes of tomatoes were produced in the district during 1993-94. At present this crop is not put to much industrial use. Tomato powder can be used in bakery products, beverages, jellies, puddings, desserts and also can be used for making tomato juice, tomato ketchup etc. Hence, there is a very good scope for setting up of a few units for the manufacture of tomato paste/powder in the district.

13. PICKLES AND CHUTNIES: Pickles and chutnies are consumer food products. They are generally taken with meals or snacks. Mango pickles are quite popular and the district produced about 41,066 tonnes of mangoes during 1993-94. Chutney is just like jam except some spices and vinegar are added to make it more palatable. There is good demand for these products in the district and its neighbouring places. It is, therefore, suggested that a few units for manufacturing pickles and chutnies may be set up in the district.

14. TUITY FRUITY FROM PAPAYA: During the year 1993-94, about 6015 tonnes of papaya were produced in the district. These are at present mostly consumed locally and not put to any industrial use. The main consumers of Tuity Fruity are bakeries, ice cream makers etc. There are many bakeries and ice cream makers in the State. Hence, there
is good demand for the product and it is suggested that a unit for the manufacturing of Tuity fruity from papaya may be set in the district.

11. TAMARIND CONCENTRATE: Tamarind is used as a souring material in food preparation. Instead of using Tamarind pulp, tamarind concentrate/powder can be used in preparing certain food items. Central Food Technological Research Institute, Mysore, has developed process for making both tamarind concentrate/powder. The district has produced 26,427 tonnes of Tamarind during 1993-94. At present, there is no unit manufacturing this product in the district. In addition to the internal demand, there is good export prospects too for tamarind concentrate/powder. Hence, there is excellent scope for setting up of a unit for manufacture of this product in the district.

16. HARD BOARD: Hard board can be manufactured by using arecanut husk, saw dust and other similar raw materials. These raw materials are available in substantial quantities in the district. At present these materials are not put to much industrial use and are mostly going waste. Many utility articles like writing pads used by children etc. can be made out of hardboard. This also can be used for making partitions etc. Hence, there is good demand for hard board in the State as well as in the country. A unit may be set up in the district so that these raw materials which are at present being wasted can be profitably utilised.

17. PARTICLE BOARD: Particle boards are composed of particles of wood or other fibrous materials, which are boarded together with a synthetic resin. A wide variety of raw materials and particles of varying shape and size may be used in the manufacture. By using coconut husk, saw dust, Areca nut husk, groundnut husk, paddy husk etc. which are
available in plenty in the district, one unit can be started to manufacture this product which has good demand in the State as well as in the country.

18. STRAW BOARD: Various straws of rice, wheat, sugarcane, bogasse etc. are used for manufacturing straw boards. These raw materials are available in plenty in the district. At present, these materials are mostly used as fodder or as fuel and not put to much industrial purposes. Straw boards are used for various purposes such as making boxes, book binding, travelling goods, files etc. There is a very good demand for this product in the State and in the country. It is, therefore, suggested one small scale unit for the manufacture of straw board may be set up in the district.

19. BANANA CHIPS: During the year 1993-94, the district has produced 82,890 tonnes of bananas. At present, Bananas produced in the district are mostly consumed locally and sent to neighbouring districts and not put to much industrial use. Banana chips is a consumer product. There is a very good demand for the product in the district and in the neighbouring districts. As such, it is suggested that a few small scale units may be set up in the district for the manufacture of Banana chips.

20. BANANA POWDER/TOFFEE: The district has produced 82,890 tonnes of bananas during the year 1993-94. Presently these are mostly locally consumed or sent to nearby places and not put to much industrial purposes. Commercial products such as powder, toffee etc., can be made out of banana. These products have good demand. It is, therefore, suggested that a small scale unit may be set up in the district for the manufacture of Banana powder/toffee.
21. ABSORBENT COTTON: Absorbent cotton or surgical cotton is mainly used for medical purposes. There is increasing demand for this item and also it has got good export potential. Three types of cotton viz., raw cotton, soft cotton, waste and lintels from ginning factory can be used. The process involved in making absorbent cotton includes opening and cleaning, picking and lapping, kiering, bleaching, washing and carding. Production of cotton in the district during 1993-94 was 4570 tonnes. At present there is only one unit for the manufacture of Absorbent cotton in the district. A unit, therefore, can be set up for the manufacture of Absorbent cotton in the district.

22. TAMARIND STARCH: Production of Tamarind in Tumkur district was 26,427 tonnes during 1993-94. Tamarind is used for edible purposes and the seeds are generally wasted. These seeds can be used for the manufacture of starch which finds application in sizing of textiles and as a general adhesive. There are a large number of textile mills which are the major consumers of Tamarind starch in the State. At present there is only one unit producing Tamarind starch in the district. There is, therefore, good scope for setting up of a small scale unit for the manufacture of Tamarind starch in the district.

23. VEGETABLE MILK/CURD FROM GROUNDNUT: Vegetable milk/curd is becoming a necessity in these days to supplement the animal milk. The CFTRI, Mysore has developed necessary process for the manufacture of milk/curd from groundnut and found that this milk is no way inferior to animal milk. Groundnut is grown in substantial quantity in the district and as such a small scale unit for the manufacture of this product may be established in the district.
24. COCONUT BASED PRODUCTS such as coconut shell powder activated carbon, automobile gaskets from coir pith, coconut defibring, rubberised coir products, coir brushes, coir curling etc.

Tumkur district is an important coconut growing centre in the State. In all the taluks of the district coconuts are grown. Tiptur taluk leads in coconut plantation in the district. About 1,14,244 hectares are under coconut plantation in the district. Annual production of coconuts in the district is about 101 crore nuts. Hence, the raw materials required for the manufacture of items such as coconut shells, coir pith, coir fibres etc., are abundantly available in the district. Although, there are already units in the lines of defibring, rubberised coir products, coconut shell powder, activated carbon, coir curling etc., at present, no unit is engaged in the manufacture of automobile gasket from coir pith, which is available in substantial quantity in the district and mostly wasted presently. Considering the present demand and future prospects for the above products, it is suggested that a few units in each of the above product lines may be set up in the district, so that not only full potential of the coconut based raw materials, could be exploited, but also leads to speedy industrialisation of the district and helps solving the unemployment problem.

25. KHANDASARI SUGAR: Sugarcane is grown on an area of about 1864 hectares and the production of sugar cane was 1,51,452 tonnes during 1993-94. There are already a few units manufacturing Khandasari sugar in the district. However, looking at the demand for sugar, its high cost and shortage thereof, there is scope for setting up of a few more Khandasari sugar mills in the district.
26. SCENTED SUPARI: Scented supari has got a very good demand in the district and in Bangalore city. During the year 1993-94 about 6652 tonnes of Arecanuts were produced in the district. At present bulk of this production is marketed outside the district and not put to much industrial purposes. In view of the abundant availability of arecanuts in the district, it is suggested that a few units for the manufacture of scented supari may be set up.

27. EXTRACTION OF ESSENTIAL OILS: Essential oils are made from Dhavana, Citronella, Eucalyptus, Palm rose and Lemon-grass. They are used in the manufacture of soap, perfumes, cosmetics and pharmaceutical products. The climate of the district is suitable for growing these plants. Essential oils have a very good market in the State as well as in the country. They have also good export market. In 1990-91 India exported 720 tonnes of essential oils worth Rs. 240 crores. It is, therefore, suggested that one or two units for manufacturing essential oils in the district may be set up.

28. PAPAD: Papad forms a popular food item adjunct in Indian dietary. It is a wafer like product circular in shape and rolled out of pulses flour dough added with salt and spices. At present, mostly small scale units are making papad by hand which is a time consuming process. CFTRI, Mysore, has developed a simple inexpensive pedal operated machine with which 600 papads can be made in an hour from Dal flour dough. In comparison, only 130 papads can be made by traditional method. The machine is suitable for making papad from horse gram which is rather hard and strenous to roll by traditional method. There is good demand for papad in the district and in Bangalore city. Hence, it is suggested that a few units may be set
up for the manufacture of papad in the district. Entrepreneurs interested in taking up the manufacture of papad can contact CFTRI, Mysore, for getting further details on the machine developed by them.

29. FRUIT BARS/TOFFEES: Fruit bars/toffees are made from pulpy fruits like mango, banana, papaya, guava etc., which are grown abundantly in Tumkur district. Fruit bars are highly nutritious, and ready to eat and have good shelf life. They can be made either singularly or in combination with different fruits pulp. Fruit bars/toffees can be easily marketed as one of the confectionery items. Hence, it is suggested that one or two units may be set up for the manufacture of fruit bars/toffees in the district. Process of manufacturing fruit bars can be obtained from CFTRI, Mysore.

30. POULTRY AND CATTLE FEED: Cattle and poultry feed are needed for providing balanced food to animals and birds. As per 1990 livestock census, Tumkur district has 6,09,000 cattle, 2,45,200 buffaloes, 5,96,800 sheep, 2,97,100 goats and 5,93,700 poultry. Farmers in the district are also conscious of the need for providing well balanced feed to the cattle and poultry. In the absence of adequate usual feeds like grass and fodder in the district, there is very good demand for cattle feed and poultry feed. Therefore, one or two units for manufacturing cattle and poultry feed can be set up in addition to the already existing units in the district.

31. MODERN DHAL MILL: Most of the pulses produced are converted into Dhal by traditional process at present, which is a time consuming and wasteful in nature and the technique used varies from place to place. CFTRI, Mysore, has developed a simple technique for milling
pulses, which can give 80 to 85% of Dhal at lesser time and cost as compared to traditional process. Pulses are grown in the district on an area of about 59,311 hectares and production was about 35,014 tonnes during 1993-94. There is a very good demand for dhal in the district and in the State. Therefore, it is suggested that a modern dhal mill may be set up in the district. The process can be obtained from CFTRI, by the prospective entrepreneurs.

32. BAKER’S FLOUR: CFTRI, Mysore, has developed a simple milling process for obtaining simultaneously bakery flour and chapathi atta. Such a milling process is of great relevance to rural areas in the light of Government's policy to promote bakery industry in the small scale sector. For the first time in India, CFTRI has developed the process of simultaneously making bakery flour and atta using a combination of a huller, Chakki and a sieving unit. The process has several advantages such as low capital investment, potential for self-employment, no need for skilled labour, and economical in milling even a few bags. Bran obtained as a byproduct can be utilised for animal feed formulations. Since, there is a very good demand for baker's flour in the district as well as in the State, a few units maybe set up in the district for the manufacture of this product.

33. STONE CUTTING AND POLISHING: Granite stones have assumed a unique position in the recent years in the sphere of civil engineering activities. It is due to the fact that the slabs once laid on the floors and walls last for long. Secondly, with natural colour and design they look elegant and require no maintenance. They are costly. However, the demand has enormously increased specially during the last two decades.
These slabs are used as monumental stones, sinks, platforms in kitchen, name plates and other decoration of buildings. The demand for these stones is ever increasing as they are very popular for their smooth finish and decorative appearance. The export of granite has been earning substantial foreign exchange for our country. Since there is a very good prospects for cutting and polishing stone slabs, a small scale unit in this line of manufacture may be set up in the district.

34. HYDRATED LIME: There is a permanent demand for Hyderabad lime in the district and in the neighbouring places. The raw material is available in plenty in the district. Hence, it is suggested that a few units for the manufacture of Hyderabad lime may be set up in the district.

35. TABLE MOULDED BRICKS: Table moulded bricks are rectangular shaped burnt clay products having a size of 9" x 4½" x 3". They are used mainly for the construction of buildings such as dwelling houses, industrial sheds, hospitals, hotels, commercial complexes, cinema houses etc. In view of increased construction activities due to improvement in general prosperity, there is a good demand for table moulded bricks in the district and in the neighbouring districts. Though the building bricks of other variety are available, table moulded bricks are popular in the construction work in modern times. Hence, there is good scope for setting up of a few units for the manufacture of table moulded bricks in the district.

36. GLASS INDUSTRIES: Silver sand is reported to be available in Gubbi, Tiptur and Chikkanayakanahalli taluks particularly in the Doregudda Hatya Hills. As there is no unit at present to utilise silver sand, one glass unit may be started in the district.
37. STONEWARE PIPES : The chief raw material required for the manufacture of stoneware pipes is the inferior type of fire clay having an alumina content of about 20 per cent and having sufficient plasticity is needed singularly without any admixture. Such a clay is available abundantly in Turuvekere, Gubbi and Chikkanayakanahalli taluks. Since the demand for storeware pipes is on the increase, there is good scope for starting a unit for the manufacture of this product in the district.

38. ROOFING TILES : Roofing tiles are extensively used in the construction of dwelling houses. They are comparatively cheap and as such quite popular in rural and semi-urban areas of the district. The demand for roofing tiles is increasing due to various developmental schemes of the State Government. The present annual demand for roofing tiles in the State is about 30 crore. Clay suitable for the manufacture of tiles (Mangalore type) is available in the district. Hence, there is a scope for setting up of a few units for the manufacture of roofing tiles in the district.

39. STONE CRUSHING : The demand for jelly is increasing on account of many developmental activities taking place in the district. There is vast scope for setting up of a few units for the production of stone jelly in the district.

40. LEATHER TANNING AND BONE MEAL : Tumkur District has a vast live stock population of 18.73 lakh as per 1990 live stock census. At present, hides and skins numbering about 1,75,000 available annually and are being sent out of the district for tanning. At present there is no small scale unit engaged in leather tanning in an organised manner in
the district. Hence, it is suggested that a well organised tannery may be set up in the district on modern lines.

It is reported that large quantities of bones are exported to other districts. About 2000 tonnes of bones are available annually in the district. The demand for fertilizers is growing year by year on account of increased agricultural activities. Bone meal being a good fertilizer has ready market. Hence, a couple of factories for the production of bone meal may be set up in the district.

41. DRUGGETS FROM WOOL: It is estimated that about 10 lakh Lbs of wool is collected annually in the district. About 60% of the wool is utilised locally for weaving of coarse blankets and the rest is sent to other districts. There is good demand for woollen druggets all over the country. If the local Kambli weavers are trained in this line, they can manufacture Druggets. A few units for the manufacture of Druggets can be started in the district.

42. POULTRY DRESSING: For poultry dressing, the broilers should be free from diseases. The shipments of broilers from the farm to the dressing unit should be so arranged that birds arrive into the dressing room directly. Alternatively, holding and feeding room has to be arranged for birds awaiting slaughter. Since, there is good demand for dressed poultry in the district as well as in the State, a unit for making poultry dressing may be set up in the district. Detailed process of poultry dressing and blue print poultry processing equipment can be obtained from the CFTRI, Mysore. For the certificate, needed under Food products order, for manufacturing food products, the Deputy Director, Directorate of Marketing and Inspection, Ministry of Food and Agriculture, Sastri Bhavan, 35, Haddows Road, Madras 600 006 may be contacted.
For export information, the Assistant Director, Agriculture and Processed Food products, Export Development Authority, 12/1/1, Palace Cross, Bangalore-20, may be contacted.

43. EGG POWDER: Nutritional standard of our people is very low. Egg is a rich source of protein. At present eggs produced in the district are used for local consumption and they are not being put to any commercial purpose. The drying of eggs is an economical method of preserving surplus eggs. Egg powder can be transported without damage and stored at room temperature. Due to reduction in bulk and weight, shipping space is saved and handling is facilitated. The product is stable and has long shelf life. It is very useful in army rations where shell eggs cannot be supplied in large quantities to troops stationed in far off and inaccessible places. Imported egg powder was one of the food items supplied to the armed forces. In order to achieve self sufficiency, CFTRI, Mysore, has developed the process of manufacturing egg powder. Egg powder is more commercially viable in our country.

The egg shells which are a by-product are fried, powdered and filled in jute bags. This powder can be used as a mineral supplement in poultry and animal feeds.

The white of the eggs rejected at the candling and washing stages could be used for the manufacture of egg albumen flakes, which have extensive application in textiles, printing and in many other industries. This product is used principally in bakery and confectionery industries. Hence, it is suggested that a unit for manufacturing egg powder maybe set up in the district. The process of manufacturing egg powder can be obtained from CFTRI, Mysore.
B. DEMAND BASED INDUSTRIES

1. BAKERY: Bakery industry is an important segment of industrial activity in Karnataka State. Bread provides nutritious breakfast and food to a large number of people in cities, towns and villages. Bakery can also provide employment for rural people. There is good demand for bakery products in the district. Although the exact local demand for the product is not known, demand for bakery product in the State was around 50000 tonnes in 1991-92. There is, therefore, good scope for setting of a few bakery units in the district.

2. AERATED WATER: Soda water is aerated water. It is used for quenching human thirst. It is a drink within the easy reach of a common man. Demand for aerated water is more during the summer months. When the heat is more oppressive, and it enhances human thirst. There is, therefore, good demand for aerated water in various taluk headquarters of the district. Investment required is low and as such it is suitable for setting up of these units in urban and semi-urban areas. Process of manufacturing aerated water consists of washing the bottle first with synthetic detergent solution, using a washing machine. Compressed carbodioxide is then dissolved in water and the bottles are filled with the help of carbonating machine and sealed using crown cork. A few more aerated water manufacturing units could be set up in the district.

3. ICE CREAM: Ice cream is a popular milk based product. Ice cream is becoming popular because of its taste and cooling affects. It has an added value as it contains a good percentage of valuable nutritive constituents. There are at present 400 registered small scale units in Karnataka with a capacity to produce ice cream worth Rs.25 crores.
per annum. There is good scope for setting up of a few units for the manufacture of ice cream in the district.

4. **CONFECTIONERY**: Confectionery are edible delicacies. They constitute an important ingredient of balanced diet as they supply energy in easily assimilative form. Principal types of confectionery are candies, toffees, caramels and lozenges. Sugar is the most important ingredient used in the manufacture of confectionery. Other ingredients are flavouring materials and colours. There are about 100 registered small scale units manufacturing confectionery in the State. These units have an installed capacity of 3000 tonnes of confectionery per annum. There is good demand for confectionery not only in Karnataka but also in Andhra Pradesh and in Tamil Nadu. Therefore, a few confectionery manufacturing units could be set up in the district.

5. **PAPER ENVELOPES**: The demand for paper envelopes emanate from Government offices, industrial enterprises, banks etc. The demand for paper envelopes at present in the State is 15 crores. There are 12 registered small scale units in the State, manufacturing paper envelopes with an installed capacity to manufacture 4.76 crore paper envelopes and their production is 3.40 crores. Of the 12 registered units, 8 are in Bangalore, 2 in Hubli and 2 in Dharwar.

This industry has been exclusively reserved for small scale sector since 1967-68. Since the demand gap exists for this item, there is scope for setting up of a few units for the manufacture of paper envelopes in Tumkur district.

6. **CORRUGATED CARD BOARD BOXES**: Good packing of industrial products is one of the important aspects in the sales promotion of articles. It
is universally recognised that what clothing is to man, packing is to industrial product. During the last four years, there has been rapid industrial development in the State. For the safety of finished goods, the use of paper corrugated boxes is increasing. It is replacing wooden containers due to advantages such as light weight, easy fabrication, effective cushioning, easy storage and disposal. The item is exclusively reserved for manufacture in the small scale sector. Hence, there is good demand for corrugated cardboard boxes in the district and also in neighbouring districts. It is, therefore, suggested that a unit for the manufacture of corrugated cardboard boxes may be set up in the district.

7. PAPER CUPS AND PLATES: Paper crockery such as paper cups and saucers is used for serving eatables in parties, functions, social gatherings etc. Paper cups are also used as containers for ice creams. These are also used for catering purpose by caterers of railways and other establishments. Because of their disposable nature, these are often preferred to porcelain, glass and metal containers, for specific requirements. Their usage is increasing due to the development of a habit among the people for going on picnics, parties and of visiting hotels etc. At present, there is no unit, making paper cups and plates in the district. It is, therefore, suggested that a unit for the manufacture of paper cups and plates may be set up in the district.

8. LEATHER GLOVES: Leather handgloves are used by large, medium and small scale units, manufacturing chemicals/rubber/plastic, metallurgical, heat-treatment products etc., as a protective garment for their workers. This item is exclusively reserved for small scale sector.
Since, there is demand for the product in the district and in neighbouring areas, it is suggested that a small scale unit for the manufacture of industrial gloves may be set up in the district.

9. M.C. SHEETS: M.C. sheets are becoming popular in the manufacture of footwear due to their wear and tear resisting property. Micro-cellular sheets have also good export possibilities to African countries. The demand for M.C. sheet is increasing steadily. There is good scope for setting up of a unit for the manufacture of M.C. sheets in Tumkur District.

10. PLASTIC BUTTONS: Plastic buttons are manufactured from Polyster sheets or acrylic sheets by die punching technique and using maldehyde moulding powder by compression moulding technique. Plastic buttons are essential requirements in the making of all dresses and garments used by everybody in the society. It is available in different sizes, shapes and shades and is of light weight. Its anti-corrosive characteristic makes it a favourite choice of garment manufacturers. The present demand for plastic buttons in the State is 40 tonnes. 3/4 of it is being met by units located in Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu. Though there are already few units, manufacturing this item in the district, yet there is scope for setting up of some more units here due to growing demand for the product in the State readymade garment factories.

11. PLASTIC BANGLES: Plastic bangles are used by ladies for ornamental purpose. They are becoming more popular than glass bangles, as they are light and less amenable to breakage. This industry in India is mostly in small
scale sector. Largest concentration of these units is in Maharashtra. The raw materials required are available easily. Current annual production is to the tune of Rs. 10 crores in the country. There is also good scope for exporting plastic bangles to Africa, Bangladesh, Canada, France, Kenya, Malaysia, Sri Lanka etc. on an average plastic bangles worth 10 millions are being expected to these countries. There is very good demand for the product in the district as well as in the State. As such, there is scope for setting up of one or two plastic bangle manufacturing units in the district.

12. DISPOSABLE PLASTIC CUPS: Disposable plastic cups/glasses are largely used at railway stations, moving restaurants, and by travelers and sportsmen. They are also used for ice cream packing and other purposes. These products are manufactured by thermoforming i.e., forming of a plastic part by the application of heat. This method involves clamping, heating, forming, cooling and trimming. The use of disposable plastic cups/glasses is increasing day by day due to their convenience. This industry has a very bright future. It is, therefore, suggested that a small scale unit for the manufacture of this product may be set up in Tumkur district.

13. PAINTS AND VARNISHES: The demand for paints and varnish is ever increasing due to growing construction activity and improvement in the income level of people. Paints and varnish are used to decorate and to protect building, furniture, machinery and equipment and transport vehicles. The demand for paints and varnish in the State is estimated at about Rs. 15 crore per annum. The existing units are not able to meet the demand. There is, therefore, scope for setting up of a few units for the manufacture of paints and varnish in the district.
14. AGARBATHI: Agarbathi is both an export worthy and mass consumption item. It is used both in rural and urban areas while performing poojas, weddings and other religious functions. Agarbathi occupies an important place among products exported from India. Agarbathi is exported to Nigeria, USA, Singapore, Ethiopia and to Saudi Arabia from Karnataka.

There are about 1000 units with an installed capacity of manufacturing Agarbathi worth about Rs. 20 crores and the Karnataka has the installed capacity of producing Agarbathi worth 18 crores. This Industry is at present mainly concentrated in Bangalore, Mysore and Kolar districts. In view of good demand for this product in the State, country and good export prospects, it is suggested that a few units for the manufacture of Agarbathi may be encouraged in the district.

15. DETERGENT POWDER/CAKE: Synthetic detergent is a chemical compound manufactured in the form of cake/bars and powder. It is used as a substitute for washing soap/laundry soap. There are at present 40 registered small scale units and one large scale firm manufacturing this product in Karnataka. The production made by small scale unit is 1500 tonnes as against its installed capacity of 3000 tonnes. Demand for detergent cake/powder in Karnataka is about 3500 tonnes per annum. Though there is keen competition in this field of activity, in view of increasing demand for this product due to growing population, there is good scope for setting up of a few units for manufacturing detergent products such as bars/cake or powder in the district.

16. SURGICAL BANDAGES: Surgical cotton and bandages are used in dispensaries, nursing homes and hospitals. There is also good foreign
demand for surgical bandages with the increase in number of nursing homes and hospitals, the demand for surgical bandages is continuously increasing. There scope for setting up of one or two units for the manufacture of surgical bandages in the district.

17. SEWING THREAD REELS AND BALLS: Sewing thread is a very common household item and it is the prime material for stitching clothes. Sewing thread balls and reels have good demand all over the State. There is also good export market for the product. Moreover, its manufacturing process is very simple. Investment required is small. So there is good scope for new entrepreneurs to start units to make sewing thread reels and balls.

18. READYM ade GARMENTS: Readymade garments are mass consumption items. These items are required by each and every household in urban as well as in rural areas. Especially for children garments, more and more people are going in for ready made dresses instead of purchasing cloth and getting dresses stitched. There is, therefore, very good scope for setting up of readymade garment manufacturing units. As the investment required for this type of industry is less, readymade garment manufacturing units can be set up as self-employment ventures by tailors and even by ladies who are trained in tailoring. Increase in stitching charges has also made people to prefer readymade garments. There is also a very good export market for readymade garments. Export market for readymade garments exist in West Asian countries, African countries, Latin America, USA, East European Countries and in New Zealand. More than 3000 crore rupees worth of readymade garments are being exported from India every year.
There are 500 small scale units in Karnataka, engaged in the manufacture of readymade garments, out of which 330 are registered with the Directorate of Industries and Commerce. These units are manufacturing readymade garments worth Rs. 20 crore per annum. There is a very good scope for setting up of ready made garment manufacturing units in Tumkur. There is a vast scope for selling ready made garments in Bangalore city, apart from catering to the requirements of Tumkur District. Demand is particularly good for children’s dresses, school uniforms, girls' chudidars and boys' jeans pants.

19. LEATHER GARMENTS: In developed countries, due to high labour cost, labour immigration to hi-tech industries and stringent pollution laws, there is a stagnation in leather industry. This has given momentum to leather industry in developing countries like India. The low labour cost and high quality raw materials make India a promising country for the manufacture of leather garments. It is only the lack of technology and equipment which make our products lag behind in the world market. But under the liberalised industrial policy, this drawback has been removed to a great extent. The council for leather exports believes that India has the potential to emerge as one of the top five exporters of leather products by 2000 AD taking a share of 15% of global market.

Leather garments are one of the most sophisticated products of finished leather. The main items to which have good demand are coats, jackets, blazers, skirts and pants both for ladies and gents. Leather garments have that rich look, comfort and durability which have made them fashion craze in the cold western countries. Due to the technological progress, now it is possible to produce softer, lighter and easier to care leather dresses in uniform thickness, appealing shape and texture.
During 1989-90 India exported leather garments worth Rs. 3329 crore. Huge export market exists in countries like Germany, France, USA, Japan, Switzerland, U.K., Hongkong, Netherlands, Austria, etc. In view of good export markets for leather garments, a few units for the manufacture of this item may be set up in Tumkur district.

20. LEATHER SHOE UPPER CLOSED: There is very good export market for leather shoe upper closed. The demand for leather shoe upper in the country, from various shoe manufacturing units is also increasing. Leather industry has been identified as a thrust sector by the Government of India. There is at present only one unit located at Bangalore for the manufacture of leather shoe upper closed. It is exporting its entire output to foreign countries like Japan, Bulgaria and England. There is good scope for setting up of one or two units in Tumkur district for manufacturing this item.

21. LEATHER FOOTWEAR: Leather footwear consists of items such as leather shoes, chappals and sandals. Leather footwear manufacturing is a traditional industry in the State. This Industry is mainly in the decentralised cottage sector.

There are 550 units manufacturing leather footwear in the cottage/small scale sector in the State, of which 200 units are established in the organised manner. Annual installed capacity is 70 lakh pairs and annual production of these units is 60 lakh pairs. The annual demand for leather footwear in the State is about 2 crore pairs. Bulk of the demand for leather footwear in the State is being met by units located in Agra, Kanpur and Calcutta. There is good scope for starting leather footwear manufacturing units in the organised sector in
the district. There is also very good export market for leather footwear. Major markets for leather footwear are U.K., U.S.A., France, Germany, Japan and Australia. In 1991 leather footwear worth 210 crore rupees were exported from India and the same is expected to reach 1500 crores by 1995.

22. OPTICAL GLASS GRINDING: Optical lenses are the most important part of eye glasses, cameras, microscopes, telescopes and similar other optical equipments. Today magnifiers are used not only as aids to easy reading but also by engravers, carvers, diamond cutters, watch repairers etc. Demand for optical lenses is increasing because of their multiple uses. There is, therefore, scope for setting up of one or two units in the district for optical glass grinding and polishing.

23. STEEL FURNITURE: Furniture are the items of daily use in houses, commercial offices, public buildings and hospitals. The use of steel furniture is a recent development. First steel chair was made in 1925. Steel furniture are light in weight, strong, flexible and cheap. With wood becoming scarce and costly, the demand for steel furniture is increasing. Steel furniture can be grouped under (1) Household furniture eg., Chairs, dining tables, sofas, cots, safes and almirahs (2) Office furniture and, (3) Hospital furniture like beds, operating tables, xerox and surgical cabinets. Further, cash boxes are manufactured for use in Government Departments like P & T, Railways, Banks, shops etc.

There are 663 registered small scale units manufacturing steel furniture in Karnataka State. These units produce steel furniture worth Rs. 10 crore per annum, while the demand for steel furniture in the State is about Rs. 15 crore per annum. Of this, demand for hospital
furniture is about Rs. 50 lakh per annum. There is good scope for setting up of a few units for the manufacture of steel furniture in the district.

24. G.I. BUCKETS: Galvanised iron buckets are used in households for drawing water from wells, for carrying water and storing water. G.I. Buckets are extensively used owing to their durability and sturdiness. The main raw materials required are GI sheets, GI Rods and zinc.

There are 5 units in the small scale sector in the State, manufacturing G.I. Buckets. These units have an installed capacity of 20000 dozens per annum and their production is 15000 dozens per annum. There is good demand for G.I. Buckets in Tumkur District. As such, one or two units could be set up in the district for manufacturing G.I. buckets.

25. HOSIERY: Hosiery items include items like T. Shirts, Baby shirts, P.T. Banians, Ladies tops, underwares, pull overs, sweaters, mufflers etc. These are used by all classes of people irrespective of whether they are living in cities, rural areas or in urban areas. Hosiery goods are also export worthy. There are at present 100 small scale units in the State, engaged in the manufacture of hosiery items. Of these, only 59 are registered with the Directorate of Industries and Commerce. The installed capacity of hosiery manufacturing units in the State is 2.77 lakh dozens valued at Rs. 278 lakh. The production is 1.5 lakh dozens valued at Rs. 155 lakh. At present, this industry is mainly concentrated in Belgaum city. Other important centres are Bangalore, Mysore, Mangalore etc. In view of the increasing demand for hosiery in
the district and particularly in Bangalore city, there is scope for setting up of 2 or 3 hosiery manufacturing units in the District.

26. EXERCISE BOOKS AND REGISTERS: Demand for exercise books comes mostly from student community. The demand for exercise books at present in the State is worth about Rs. 25 crores per annum. There are 21 registered and a number of unregistered units manufacturing exercise books and registers in the State. The present production of exercise books in the State is worth about 15 crores per annum, of which the share of Mysore Sales International is 4 crores. The demand in the State is being partly met by units located in Tamil-Nadu and Maharashtra. In view of the increase in the student population in the district and increasing commercial activity, there is scope for setting up of a few units for manufacturing exercise books and registers.

27. PHARMACEUTICALS AND DRUGS: With the increase in population, improvement in health services and increased awareness among people regarding maintaining good health, demand for drugs and pharmaceuticals is ever increasing.

At present there are more than 5000 units in the country manufacturing drugs of which 150 are in the organised sector and 4000 units are in the small scale sector. There is good demand for drugs and pharmaceuticals in the district and also in the state. On account of the existence of large number of hospitals, dispensaries, primary health centres etc., in the country, As per 1991 census, Karnataka State has a population of 4.48 crore. There is, therefore, scope for pharmaceutical industry in the district. However, entrepreneurs will have to take licence from the Comptroller of Drugs before setting up drug and pharmaceutical units. Units could take up manufacture of drugs
like APC Tablets, CPM Tablets, paracetamol tablets, glucose, grip water, distilled water for injection etc.

28. SAFETY MATCHES: Safety matches are one of the most essential articles of daily use. It is used by households for lighting stove for cooking and also for smokers for lighting cigarettes etc.

Demand for safety matches depends upon population, number of households, proportion of smokers in the total population etc.

At present the demand for safety matches in India is 1400 lakh gross boxes and the demand for safety matches in Karnataka is 50 lakh gross boxes. There were 7,655 registered small scale safety matches manufacturing units in the country, of which 70 are in Karnataka. Manufacture of safety matches is exclusively reserved for small scale sector since 1967. In view of increasing population and consequent demand for safety matches, there is good scope for setting up of one or two units in Tumkur District.

29. COSMETICS AND TOILET PREPARATIONS: Cosmetics and toilet preparations consist of items such as snow, talc powder, pomades, brillianting, shampoo, hair-oil, vanishing cream etc. At present there are 4 units manufacturing cosmetics in Karnataka. All of them are located in Bangalore city. Production of cosmetics/toilet preparations by these units was worth only 1 lakh in 91-92. These units are able to meet only a very small fraction of the total demand for cosmetics and toilet preparations in the State, which is about 2 crores per annum. Bulk of the demand is being met by units located in Madras and Bombay. There is, therefore, very good scope for setting up of a number of units for manufacturing cosmetics and other toilet preparations in the district.
30. GUMMED PAPER TAPE : Gummed paper tape is used for packing purposes, mainly in corrugated and solid fibre board containers, paper-boxes, paper cartons and small package. Craft paper is used in manufacturing gummed paper tape. In view of the increasing demand for gummed paper tape, this industry is having good scope.

31. HOSPITAL EQUIPMENT : Hospital equipment consists of items such as trolleys for oxygen cylinder, trolleys for soiled linen, stretcher and stretcher carrier, bedside lockers for hospital use, stand for hand wash basin, bedside tables etc. For all these items, ISI specifications have been prescribed. With rapid increase in population as well as higher life expectation and awareness of health care among citizens, there has been significant increase in demand for hospital equipment in recent years.

A large number of hospitals, private nursing homes and primary health centre have been established and more are in the process of being set up. With the objective of providing medical care to every citizen by 2000 A.D., substantial expansion in medical facilities are expected during the next 15 years by the government.

Discussions with the Joint Director of Medical Stores in Bangalore have revealed that on an average, Government Hospitals require hospital furniture to the extent of Rs. 20000/- per annum per district in the State. The total demand for hospital equipment in the State at present is worth about Rs. 6,00,000. Further, private hospitals and nursing homes in the State require about 40.0 lakh worth of hospital equipment per annum. Thus, the total annual requirement at present is worth Rs. 46.0 lakhs. Demand for hospital equipments is likely to go up by 15% per annum in the next decade due to expansion of medical facilities in the State. Except one or two units
in Bangalore city, there are no units manufacturing hospital equipment in any other district of Karnataka. There is, therefore, very good scope for setting of at least two more units for manufacturing hospital equipment. Manufacturers will have to contact the District authorities for getting orders for hospital equipment.

32. BLACK ADHESIVE INSULATION TAPE: Black adhesive insulation tapes are used in electric wiring to insulate, wherever two conductors are joined together or wherever insulation of conductors is worn out. These tapes help in protecting electrical insulation from fire hazards and other damages which may occur owing to short circuit. Black adhesive insulation tapes are made by applying the mixture of solvents and rubber compounds on cotton tapes of specialised types and sizes. Since, chemical solution used for coating is black and contains black properties, it is known as Black adhesive insulation tape.

The present demand for black adhesive insulation tape in the State is 3 lakh rolls per annum. There is only one small scale unit manufacturing black adhesive insulation tape in the State located at Belgaum. This unit manufactures about one lakh rolls of black adhesive insulation tape per annum. Hence, there is scope to set up one more unit.

B. ANCILLARY INDUSTRIES DEVELOPMENT

The existing medium/large scale industries in Tumkur District except HMT Watch Factory, Tumkur, do not offer much scope for the development of ancillary industries, as those existing in Bangalore and other places in the State, in view of the very nature of the products being manufactured by them. HMT Watch Factory, Tumkur, has already developed 19 ancillary industries for supply of watch cases and other components to them. There is no further scope for the development of this industry.
C. SCOPE FOR SETTING UP OF INDUSTRIAL COMPLEXES

Majority of the population still depend upon agriculture in Tumkur Dist. About 43% of the total income of the district is derived from agriculture. The district is rich in agriculture, horticulture, livestock and mineral resources. These resources are not presently exploited fully for industrial purposes. The district is linked with major industrial and marketing centres like Bangalore, Madras, Hyderabad and Bombay by road and rail. With Bangalore city almost reaching saturation point in industrial development, there is need for decentralising industrial activity to other districts like Tumkur, which is situated just 70 kms away from Bangalore city. Hence, Tumkur district offers excellent scope for the development of industrial complexes based on both resource and demand. Establishment of industrial complexes not only encourages the utilisation of resources effectively, but also creates employment opportunities for the unemployed and under employed persons in the district. This also provides avenues for the development of allied and ancillary activity as also leads to growth and development of trade and commerce in the neighbourhood of such industrial complexes. It is, therefore, suggested to set up the following industrial complexes in the district.

1. COCONUT COMPLEX: Tumkur District is one of the leading districts growing coconuts in the State of Karnataka. In all the taluks of the district coconuts are grown. Tiptur taluk leads in coconut plantation. Coconuts are grown in over an area of 1,14,244 hectares in the district. 101 crore nuts are produced every year in the district. Karnataka State Co-operative and Rural Development Bank and Karpatharu Grameena Banks have taken up ambitious programmes for the intensive development of coconut plantation in the district.
Coconut is an important Horticultural produce, which offers raw materials for many industries like Dessicated coconut powder, oil mill, shell flour, activated carbon coir products etc. Although there are units utilising the raw materials available from coconuts already in the district, its full potential has not been exploited for industrial purpose. Hence, it is suggested, to set up, a coconut complex at Tiptur, which is located on B.H.Road, a State Highway, and also a leading taluk in coconut plantation in the District. In this complex, small scale units for the manufacture of Dessicated coconut powder, activated carbon, coconut shell flour, coconut oil mill, perfumed hair oil, coir defibering and coir yarn making, coir carpets, coir brushes, rubberised coir etc. can be set up. The complex can provide employment to a large number of persons, besides helping the fuller utilisation of this important resource locally available.

2. EXPORT ORIENTED SILK GARMENTS COMPLEX : Karnataka is a major producer of raw silk in the country accounting for more than 80% of the production. With the implementation of the World Bank assisted Sericulture project, the production of raw silk in the State has increased considerably. In Tumkur District, Sericulture is a developing industry. Climate of the district and soil are suitable for growing mulberry. Mulberry leaves are used for rearing silk worms, which produce cocoons. Silk is manufactured from cocoons. About 15206 hectares were under mulberry cultivation in the district in 1992-93. The Department of Sericulture is motivating farmers to take up this activity on a large scale. In all the taluks of the district, sericulture activity is undertaken by farmers. There were 518 silk reeling units in the district in 1992-93. In 1993-94 the production of cocoons was 5638 tonnes and silk production was 560 tonnes.
In order to absorb the increased production of raw silk and to develop the sericulture activity in Tumkur District, there is a need for setting up of a complex for manufacturing export quality silk garments in the district. In the complex, units for silk reeling and twisting, silk weaving, printing and dyeing, garments manufacturing can be set up. Besides, units for manufacturing ancillary and allied items like packing materials, buttons, threads etc., can also be set up in the complex. Processed silk fabric and silk garments have very good demand both in the export and domestic markets. The export of silk goods is growing rapidly at 10% per annum. The basic inputs necessary for boosting exports are the high quality of fabrics and the garments which will be available from the complex through the use of sophisticated weaving and garments manufacturing machinery and equipments.

3. COMPLEX FOR HOSIERY PRODUCTS: Hosiery products include items like T. Shirts, baby suits, banians, underwears, pullovers, sweaters, swimming suits, PT Banians, mufflers etc. These items have very good demand in the foreign and domestic markets. At present, hosiery products manufacturing units are concentrated in Belgaum district. There are about 100 units engaged in the manufacture of hosiery goods (Both cotton and synthetic products).

Since hosiery industry is highly labour intensive and Tumkur is situated very near to Bangalore city where there is excellent demand for hosiery goods, it is suggested that a complex for manufacturing hosiery products may be set up in Tumkur district.
4. GRANITE CUTTING AND POLISHING: This industry is an export oriented industry. The units are concentrated in Karnataka, Tamil Nadu, Andhra Pradesh and Rajasthan. There is very good availability of raw materials viz., pine, black and grey granite in the neighbouring districts and in Tumkur District. The major export markets for these products are Japan, USA, West Germany, Italy etc. In view of good export market and local demand for granite products from builders as well as from industries, it is suggested to set up a complex for the manufacture of granite products in Tumkur district.

5. COMPLEX FOR THE MANUFACTURE OF INDUSTRIAL SEWING MACHINE:
Industrial Sewing Machines are required for mass production of readymade garments, leather garments, leather goods like hand bags, sports goods and footwear. At present, there is no unit manufacturing Industrial Sewing machines in South India. The present requirements of these machines are met by the supplies from States like Punjab, where this industry is concentrated. Industrial Sewing Machines of sophisticated type which are required for the manufacture of export quality goods are at present imported from Japan, Germany, USA etc. There has been a rapid development of readymade garments, leather garments and leather goods manufacturing industries in the State as well as in the country. Therefore, very good demand for Industrial sewing machines in the country. Indigenous manufacture of these machines will not only reduce the cost but also save foreign exchange, besides, giving a boost to the readymade garments and leather industry in the country. In view of this, it is suggested that a complex for the manufacture of Industrial Sewing Machines may be set up in Tumkur District. The
establishment of this complex will pave the way for rapid industrial development and also create employment opportunities for many persons in the district.

6. COMPLEX FOR THE MANUFACTURE OF ELECTRICAL FANS: Presently Electrical Fans manufacturing industry is situated in Calcutta and in Punjab. Apart from these places, there are few units in Delhi, Faridabad, Agra and Varanasi. Bombay, Bangalore and Hyderabad are the other places which have a small number of these units. Manufacturers of country's major brands (Usha and Orient) are located in Calcutta, while Crompton is located in Bombay, Rallifan in Udana and Matchwell Electricals in Pune. Usha and Khaitan have their factories in Hyderabad to feed the needs of South India.

According to DGTD, Newsletters, production of Electric fans in the organised sector in the country was 42.42 lakhs in 1990-91 and 42.28 lakhs in 1991-92 and 38.51 lakh in 1992-93.

There is a very good demand for electric fans in the country. There is also excellent scope for the export of electric fans to Kuwait, Iraq, Australia, Nigeria, USA etc. The factors that govern the demand for electric fans are construction of houses and industries, corresponding amenities like hospitals, schools, libraries, community centres, rural electrification, increase in the purchasing power and rise in the standard of living of the people.

As stated earlier, this industry is mainly concentrated in West Bengal and Punjab. This industry is not much developed in the southern parts of our country. In view of this and in view of its excellent export prospects and due to very good demand for the product in our
country, it is suggested that a complex for the manufacture of electric fans may be set up in Tumkur District. If this complex is established, this will not only boost the industrialisation of the District, but also create employment opportunities for a good number of people.

7. ELECTRONICS COMPLEX: Electronics is one of the world's largest and fastest growing industries. The output of global electronics reached 700 billions in 1990 and is expected to attain $1.3 billion by 2000 A.D.

The last two years have seen major changes in our industrial, fiscal and EXIM policies, which have helped Indian Electronic industry. During 1993 production of consumer electronics touched a figure of Rs. 3760 crore, showing an increase of 14 per cent over 1992.

The computer industry recorded a 13.4 per cent growth rate in 1993. Production of mini/micro system increased from 92,000 in 1992 to about 1,10,000 in 1993. There has been a significant growth in the production of telecom equipment, particularly in electronic switching systems, RAX, PABX and transmission equipment. In respect of component industry there are over 1000 units in the country, manufacturing a wide variety of components. The overall production of major components increased from Rs. 2150 crore in 1992 to Rs. 2550 crore in 1993.

As regards software industry, the total value of software production has grown from Rs. 225 crore in 1985-86 to about Rs. 1250 crore in 1993. Exports of software increased from Rs. 101 crore in 1988 to Rs. 700 crore in 1993. The software export target for 1996 is placed at $1.0 million.
In all, there are over 3500 units manufacturing electronic products consisting of Central/State/Public Sector units, private sector units and units in small scale sector. 300 major production units, however, account for 70 per cent of total production of which 100 units are small scale. The contribution of PSUs in the overall production of electronics is around 30 per cent and that of small scale is about 28-30 per cent. The remaining is contributed by the organised private sector units.

Karnataka's contribution for the development of electronics industry in the country is quite significant. Some of the highlights of the growth of electronic industry in Karnataka are that the investment in public/private sector increased by seven fold during the plan VII and contributed 20% of country's production. The state produces more than 50% of country's communication equipments. There are, over 35 multinational companies with equity participation in Karnataka. The electronic industry in the small scale sector in the State has also achieved an impressive progress during the period 1985-1990. The number of units have increased from about 150 units in the year 1984-85 to over 1000 units by the end of 1991. These units manufacture more than 160 different products. However, about 90% of these units are located in and around Bangalore. It is, therefore, necessary to develop electronic industries in other districts of the State. Hence, it is suggested to set up an electronics complex in Tumkur District. The climate of the District is suitable for the development of electronic industry. Besides, it is also located very near to Bangalore city, where the products manufactured in the complex could find ample marketing opportunities. The complex, if set up, could
provide employment avenues to a large number of local people, besides, creating a congenial climate for further industrialisation of the district. The products that could be manufactured in the complex can be selected from the list of electronic products as given here under.

D. MEDIUM AND LARGE SCALE INDUSTRY

The main objective of the study is to identify the potential for setting up of tiny, small and ancillary industries after due consideration of the resources, infrastructure, skill, demand position etc. in the district. However, after discussions with local officers of the various departments, financial agencies, knowledgeable persons in trade and industry, it is found that there is scope for starting some large/medium scale industries which will bring out rapid industrialisation of the district. The list of large/medium scale industries which may be set up in Tumkur District is mentioned below:

1. Textile processing House.
2. Telecommunication equipment
3. Computers and computer software
4. LPG Cylinders
5. Bulk Drugs
6. Solvent Extraction of edible oil
7. I.V.Fluids
8. Micro motors
9. Quartz crystals
10. Colour photo film and paper by conversion of imported jumbo rolls.
11. HDPE Drums and Barrels
12. Superfine cotton yarn
13. Cement plans
14. PVC Doors and Windows
15. Pig iron
16. Watch dials
17. Granite tiles/slabs
18. Activated carbon
19. Anti-cancer chemotherapy drugs
20. Drug Formulations
21. Aluminium automotive wheels
22. Modern tool room
23. Glazed tiles
24. Professional grade PCBs
25. Glass bottles.

An abstract of schemes on some of the items having scope for development in small scale industrial units in the district is presented in the following pages. The list of SSIs which may be set up in the district has been maintained by the DIC, Tumkur.

On the basis of the abstract of schemes for selected items having scope for industrial development, 248 SSI units, with Rs. 708.01 lakh of capital, generating employment to 2162 workers, may be set up in the Tumkur district.

**ABSTRACT OF SCHEMES ON SELECTED ITEMS HAVING SCOPE FOR DEVELOPMENT IN TUMKUR DISTRICT**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>Capacity (Approx)</th>
<th>Approx. investment in Plant &amp; machinery (Rs.in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beaten Rice</td>
<td>1.5 t.p.d.</td>
<td>0.50 04</td>
</tr>
<tr>
<td>2</td>
<td>Vermicelli</td>
<td>6.0 t.p.m.</td>
<td>0.35 05</td>
</tr>
<tr>
<td>3</td>
<td>Oil expeller</td>
<td>12.00 t.p.m.</td>
<td>0.60 06</td>
</tr>
<tr>
<td>4</td>
<td>Roasted &amp; salted groundnut</td>
<td>5 t.p.a</td>
<td>0.20 03</td>
</tr>
</tbody>
</table>

**A. RESOURCE BASED**

**I. AGGRO BASED INDUSTRIES**
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Ragi malt</td>
<td>600 kgs p.m</td>
<td>0.50</td>
<td>09</td>
</tr>
<tr>
<td>6.</td>
<td>Ragi based weaning food</td>
<td>75 t.p.a</td>
<td>3.00</td>
<td>09</td>
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<td>7.</td>
<td>Flour mill</td>
<td>Rs. 80000/- p.a.</td>
<td>0.55</td>
<td>02</td>
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<tr>
<td>8.</td>
<td>Cattle feed and poultry feed</td>
<td>150 t.p.a</td>
<td>0.50</td>
<td>05</td>
</tr>
<tr>
<td>9.</td>
<td>Rice mill (Modern)</td>
<td>1300 m.t.p.a</td>
<td>2.00</td>
<td>10</td>
</tr>
<tr>
<td>10.</td>
<td>Condiments</td>
<td>Rs. 2 lakh PA</td>
<td>0.40</td>
<td>03</td>
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<tr>
<td>11.</td>
<td>Tooth powder from paddy husk</td>
<td>600 kgs pm</td>
<td>0.15</td>
<td>03</td>
</tr>
<tr>
<td>12.</td>
<td>Dal mill (modern)</td>
<td>2280 m.t.p.a.</td>
<td>2.50</td>
<td>10</td>
</tr>
<tr>
<td>13.</td>
<td>Groundnut decorticatol</td>
<td>7000 quintals p.a</td>
<td>0.80</td>
<td>08</td>
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<tr>
<td>14.</td>
<td>Rice bran oil</td>
<td>5 t.p.d.</td>
<td>50.00</td>
<td>10</td>
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<tr>
<td>15.</td>
<td>Jaggery/khandasari sugar</td>
<td>600 t.p.a.</td>
<td>10.00</td>
<td>10</td>
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<tr>
<td>16.</td>
<td>Extraction of essential oil</td>
<td>150 t.p.a.</td>
<td>2.25</td>
<td>10</td>
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<tr>
<td>17.</td>
<td>Hard board</td>
<td>10 t.p.d</td>
<td>20.00</td>
<td>15</td>
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<tr>
<td>18.</td>
<td>Briquetted fuel</td>
<td>1080 t.p.a</td>
<td>5.00</td>
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<tr>
<td>19.</td>
<td>Silk twisting</td>
<td>250 kgs p.m.</td>
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<tr>
<td>20.</td>
<td>Silk reeling</td>
<td>250 kgs p.m.</td>
<td>0.30</td>
<td>08</td>
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<tr>
<td>21.</td>
<td>Pop corn</td>
<td>24000 pkts p.a</td>
<td>0.05</td>
<td>02</td>
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<tr>
<td>22.</td>
<td>Fried gram</td>
<td>1500 qtl p.a.</td>
<td>2.00</td>
<td>02</td>
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<tr>
<td>23.</td>
<td>Tamarind concentrate</td>
<td>300 t.p.a.</td>
<td>12.00</td>
<td>08</td>
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<tr>
<td>24.</td>
<td>Mandakki</td>
<td>120 t.p.a</td>
<td>0.60</td>
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<td>25.</td>
<td>Banana chips</td>
<td>60 t.p.a</td>
<td>0.80</td>
<td>05</td>
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<tr>
<td>26.</td>
<td>Potato chips</td>
<td>2 t.p.ml</td>
<td>0.75</td>
<td>05</td>
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<tr>
<td>27.</td>
<td>Tomato ketchup/sauce</td>
<td>100 t.p.a</td>
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<td>28.</td>
<td>Tomato paste/powder</td>
<td>300 t.p.a</td>
<td>20.63</td>
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<td>29.</td>
<td>Dessicated coconut powder</td>
<td>360 t.p.a.</td>
<td>2.80</td>
<td>10</td>
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<tr>
<td>30.</td>
<td>Coir products</td>
<td>300 qtl p.a.</td>
<td>2.20</td>
<td>10</td>
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<tr>
<td>31.</td>
<td>Rubberised coir products</td>
<td>45000 mattresses of standard size p.a</td>
<td>45.00</td>
<td>15</td>
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<tr>
<td>32.</td>
<td>Dehydration of grapes</td>
<td>60 t.p.a</td>
<td>3.00</td>
<td>06</td>
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<tr>
<td>33.</td>
<td>Fruit juices, squashes, syrups etc.</td>
<td>500 kgs p.d.</td>
<td>0.5</td>
<td>05</td>
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<tr>
<td>34.</td>
<td>Banana powder/toffee</td>
<td>50 t.p.a</td>
<td>2.00</td>
<td>08</td>
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<tr>
<td>35.</td>
<td>Coconut shell powder</td>
<td>300 t.p.a</td>
<td>3.70</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>1</td>
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<td>-------------</td>
<td>-------</td>
<td>--------------------</td>
<td>-------</td>
</tr>
<tr>
<td>36</td>
<td>Coconut oil mill</td>
<td>12 t.p.m</td>
<td>0.60</td>
<td>05</td>
</tr>
<tr>
<td>37</td>
<td>Fruit bars/toffees</td>
<td>30 t.p.a.</td>
<td>3.00</td>
<td>07</td>
</tr>
<tr>
<td>38</td>
<td>Vinegar from fruit juice/waste</td>
<td>1200000 bottles of 750 ml</td>
<td>1.25</td>
<td>05</td>
</tr>
<tr>
<td>39</td>
<td>Scented supari</td>
<td>5 t.p.a</td>
<td>0.20</td>
<td>05</td>
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<tr>
<td>40</td>
<td>Tuity fruity from papaya</td>
<td>10000 kgs p.a.</td>
<td>0.25</td>
<td>05</td>
</tr>
<tr>
<td>41</td>
<td>Dehydration of vegetables</td>
<td>75 t.p.a</td>
<td>7.00</td>
<td>07</td>
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<tr>
<td>42</td>
<td>Soft drink in Shandy pack pouches 200 ml each</td>
<td>9 lakh pouches of</td>
<td>1.50</td>
<td>05</td>
</tr>
<tr>
<td>43</td>
<td>Processed spices</td>
<td>25 t.p.a</td>
<td>0.30</td>
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<tr>
<td>44</td>
<td>Automobile gasket from coir pith</td>
<td>250 kgs p.d.</td>
<td>1.50</td>
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<tr>
<td>45</td>
<td>Mushroom cultivation</td>
<td>Rs. 5 lakh P.A.</td>
<td>0.25</td>
<td>05</td>
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<tr>
<td>46</td>
<td>Tamarind Starch</td>
<td>140 t.p.a</td>
<td>3.50</td>
<td>09</td>
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<tr>
<td>47</td>
<td>Soapnut powder</td>
<td>30 t.p.a</td>
<td>0.50</td>
<td>07</td>
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<tr>
<td>48</td>
<td>Papad</td>
<td>Rs. 1,00,000 per annum</td>
<td>0.30</td>
<td>07</td>
</tr>
<tr>
<td>49</td>
<td>Pickles and chutneys</td>
<td>80 t.p.a</td>
<td>1.00</td>
<td>07</td>
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<tr>
<td>50</td>
<td>Baker's flour/atta</td>
<td>240 t.p.a</td>
<td>0.75</td>
<td>08</td>
</tr>
<tr>
<td>51</td>
<td>Absorbent cotton</td>
<td>162 t.p.a</td>
<td>17.50</td>
<td>16</td>
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**II. MINERAL BASED INDUSTRIES**

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<tbody>
<tr>
<td>1</td>
<td>Stone crushing</td>
<td>24000 t.p.a</td>
<td>4.80</td>
<td>16</td>
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<tr>
<td>2</td>
<td>Stone polishing</td>
<td>9000 sq. ft pa</td>
<td>1.75</td>
<td>10</td>
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<tr>
<td>3</td>
<td>Table moulded bricks</td>
<td>10 lakh bricks p.a</td>
<td>0.75</td>
<td>20</td>
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<tr>
<td>4</td>
<td>Roofing tiles</td>
<td>1.23 lakh tiles p.m.</td>
<td>6.20</td>
<td>50</td>
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<tr>
<td>5</td>
<td>Refractories</td>
<td>3000 t.p.a</td>
<td>2.00</td>
<td>15</td>
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<tr>
<td>6</td>
<td>Mineral pulverising</td>
<td>3240 t.p.a</td>
<td>3.41</td>
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<tr>
<td>7</td>
<td>Country bricks</td>
<td>10 lakh bricks p.a</td>
<td>0.70</td>
<td>20</td>
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<tr>
<td>8</td>
<td>Burnt lime</td>
<td>175 t.p.a</td>
<td>0.30</td>
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<tr>
<td>9</td>
<td>Granite tiles</td>
<td>30000 sq.ft p.a.</td>
<td>8.50</td>
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<tr>
<td>10</td>
<td>Stoneware pipes</td>
<td>6000 t.p.a.</td>
<td>30.00</td>
<td>25</td>
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</tr>
</tbody>
</table>
III. LIVESTOCK RESOURCE BASED INDUSTRIES

1. Bone meal 270 t.p.a. 0.60 08
2. Poultry farm Rs. 150000/-p.a. 0.20 08
3. Leather tannery 1,50,000 hides skins PA 3.00 08

B. DEMAND BASED INDUSTRIES

I. Food and allied products

1. Bakery products 7 lakh loaves PA 0.75 13
2. Aerated water and soft drinks 6 lakh bottles PA 1.80 08
3. Confectionery 60 t.p.a. 0.60 08
4. Ice creams 132000 cups and 120000 bars PA 0.75 08
5. Ready mixes for making Jelebi, Gulab jamoon, Vada etc. 500 kgs p.d. 1.50 09
6. Coffee powder 40 t.p.m 0.75 03

II. CHEMICAL PRODUCTS

1. Agarbathi 54 t.p.a 0.30 10
2. Safety matches 30000 gross PA 0.30 10
3. Electroplating and anodising Rs. 3 lakhs PA 0.60 05
4. Cosmetics 1 t.p.d 0.50 08
5. Red oxide primer Rs. 1.8 lakh PA 0.35 07
6. White phenyle, liquid soap etc. Rs. 40000 lits PA 0.20 05
7. Detergent powder/cake 300 kg per day 0.40 08
8. Wax candles 12 m.t.p.a. 0.50 03
9. Printing Ink 120 t.p.a. 13.00 12
10. Writing and Fountain pen ink 3 lakh pials 0.80 07
11. Sanitary Napkins 625 pkts pm 0.25 05
12. Paints and varnish 100 t.p.a 2.50 08
13. Cleaning powder 30 t.p.a 0.20 03
14. Distilled water for automobiles 10000 bottles PA 0.75 05
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Rate (Rs.)</th>
<th>Year</th>
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<tbody>
<tr>
<td>15</td>
<td>Formulated perfumery compounds</td>
<td>150 t.p.a</td>
<td>1.20</td>
<td>08</td>
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<tr>
<td>16</td>
<td>Lubricating grease</td>
<td>40 t.p.a</td>
<td>0.50</td>
<td>03</td>
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<tr>
<td>17</td>
<td>Boot polish</td>
<td>15000 Nos. of 100 boxes</td>
<td>0.25</td>
<td>04</td>
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<tr>
<td>18</td>
<td>French polish</td>
<td>40500 litres PA</td>
<td>0.15</td>
<td>03</td>
</tr>
<tr>
<td>19</td>
<td>Metal polish</td>
<td>48 m.t.p.a</td>
<td>4.25</td>
<td>04</td>
</tr>
<tr>
<td>20</td>
<td>Black phenyle</td>
<td>60000 litres PA</td>
<td>0.35</td>
<td>05</td>
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<tr>
<td>21</td>
<td>Cold storage</td>
<td>Rs. 5 lakhs PA (400 t/p/storage)</td>
<td>4.00</td>
<td>05</td>
</tr>
<tr>
<td>22</td>
<td>Camphor tablets</td>
<td>60000 pkt PA</td>
<td>0.10</td>
<td>04</td>
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</table>

### III. PAPER PRODUCTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Rate (Rs.)</th>
<th>Year</th>
</tr>
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<tbody>
<tr>
<td>14</td>
<td>Paper bags</td>
<td>1.35 lakh nos. PA</td>
<td>1.25</td>
<td>06</td>
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<tr>
<td>2</td>
<td>Paper envelopes</td>
<td>90 lakh envelope PA</td>
<td>0.90</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Drinking straw</td>
<td>2 lakh pkts PA (400 in each pkt)</td>
<td>0.60</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Paper cups/plates</td>
<td>24000 cups and 1200000 plates PA</td>
<td>0.75</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Exercise books and Registers</td>
<td>6 lakh exercise books 1.56 lakh registers PA</td>
<td>0.75</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Gummed paper tapes</td>
<td>215 t.p.a</td>
<td>2.50</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Card board boxes</td>
<td>240 t.p.a.</td>
<td>3.20</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Paper board cartons</td>
<td>12 lakh cartons PA</td>
<td>1.25</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Paper tubes</td>
<td>60 lakhs nos. PA</td>
<td>1.75</td>
<td>10</td>
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<tr>
<td>10</td>
<td>Hand made paper</td>
<td>75 t.p.a</td>
<td>3.00</td>
<td>08</td>
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</table>

### IV PLASTIC PRODUCTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Rate (Rs.)</th>
<th>Year</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Plastic buttons</td>
<td>100 gross p.d.</td>
<td>0.55</td>
<td>03</td>
</tr>
<tr>
<td>2</td>
<td>Plastic bangles</td>
<td>4 lakh doz p.a</td>
<td>2.75</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Polythene films and bags</td>
<td>120 t.p.a</td>
<td>4.50</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Welded plastic products</td>
<td>24000 rain coats 120000 file covers and folders etc.</td>
<td>0.60</td>
<td>06</td>
</tr>
<tr>
<td>5</td>
<td>Injection moulded plastic goods</td>
<td>1 t.p.m.</td>
<td>0.75</td>
<td>05</td>
</tr>
<tr>
<td>6</td>
<td>Blow moulded plastic goods</td>
<td>12 t.p.a</td>
<td>1.00</td>
<td>05</td>
</tr>
<tr>
<td>7</td>
<td>Ball pens and refills</td>
<td>1200 gross ball pen $PA, 6000 gross refills P.A.</td>
<td>0.75</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Quantity/Unit</td>
<td>Price</td>
<td>Rate</td>
</tr>
<tr>
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<td>--------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>8</td>
<td>Disposable plastic cups</td>
<td>18 lakh pcs</td>
<td>3.68</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>Polypropylene box strappings</td>
<td>135 t.p.a</td>
<td>4.00</td>
<td>05</td>
</tr>
<tr>
<td>10</td>
<td>Melamine tableware</td>
<td>12000 sets PA</td>
<td>30.00</td>
<td>20</td>
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<tr>
<td>11</td>
<td>PVC Pipes and fittings</td>
<td>180 t.p.a.</td>
<td>12.00</td>
<td>10</td>
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<tr>
<td>12</td>
<td>Rigid PVC pipes</td>
<td>180 t.p.a.</td>
<td>12.00</td>
<td>10</td>
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<tr>
<td>13</td>
<td>Monofilament yarn</td>
<td>116 t.p.a.</td>
<td>5.00</td>
<td>10</td>
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<tr>
<td>14</td>
<td>Reprocessed plastic granules</td>
<td>240 t.p.a.</td>
<td>5.00</td>
<td>05</td>
</tr>
<tr>
<td>15</td>
<td>H.M. Bags for shopping</td>
<td>550 kgs p.d</td>
<td>6.85</td>
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**V. RUBBER PRODUCTS**

<table>
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<th>Quantity/Unit</th>
<th>Price</th>
<th>Rate</th>
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<tbody>
<tr>
<td>1</td>
<td>Hawai chappals</td>
<td>53000 pairs PA</td>
<td>0.35</td>
<td>05</td>
</tr>
<tr>
<td>2</td>
<td>Tyre retreading</td>
<td>5000 tyres PA</td>
<td>2.00</td>
<td>08</td>
</tr>
<tr>
<td>3</td>
<td>Tube vulcanising</td>
<td>Rs. 60000/- PA</td>
<td>0.25</td>
<td>03</td>
</tr>
<tr>
<td>4</td>
<td>Rubber stamp making</td>
<td>300 stamps PM</td>
<td>0.15</td>
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**VI. TEXTILE PRODUCTS INCLUDING HOSIERY**

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<th>Quantity/Unit</th>
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<th>Rate</th>
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<tbody>
<tr>
<td>1</td>
<td>Readymade garments</td>
<td>18000 pyjamas</td>
<td>0.75</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and petticoats</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18000 shirts,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15000 blouses,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Hosiery items like cotton vests, drawers, briefs</td>
<td>Cotton vests, 10500 doz</td>
<td>0.75</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>etc.</td>
<td>other cotton under</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>garments 30000 doz PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Nylon socks</td>
<td>11000 doz PA</td>
<td>2.70</td>
<td>03</td>
</tr>
<tr>
<td>4</td>
<td>Woollen sweaters, mufflers etc.</td>
<td>600 sweaters PA</td>
<td>0.45</td>
<td>05</td>
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<tr>
<td></td>
<td></td>
<td>3600 doz PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6000 doz PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Sewing thread reels and balls</td>
<td>16 gross per day</td>
<td>1.50</td>
<td>03</td>
</tr>
<tr>
<td>6</td>
<td>Stove wicks</td>
<td>9000 gross packs of 10 wicks each PA</td>
<td>0.15</td>
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<tr>
<td>7</td>
<td>Shoe laces and file tags</td>
<td>28000 gross shoe laces and 2700 bundles of tags PA</td>
<td>0.70</td>
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<tr>
<td>8</td>
<td>Surgical bandages</td>
<td>25000 gross PA</td>
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### VII. GLASS AND CERAMIC PRODUCTS

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<tr>
<td>1</td>
<td>Lens grinding</td>
<td>75000 pairs PA</td>
<td>0.75</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Chalk crayons</td>
<td>90000 gross PA</td>
<td>0.45</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Cement cavity blocks</td>
<td>6.72 lakh nos. PA</td>
<td>1.75</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Glass mirrors</td>
<td>300000 sq. f.t.PA</td>
<td>0.75</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Cement products like ventilators, flower pots etc.</td>
<td>55000 Nos. PA</td>
<td>1.00</td>
<td>08</td>
</tr>
<tr>
<td>6</td>
<td>Mosaic tiles</td>
<td>40000 sq. mtr</td>
<td>2.60</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Gem cutting and polishing</td>
<td>77000 carats</td>
<td>30.50</td>
<td>30</td>
</tr>
<tr>
<td>8</td>
<td>Decoration of glass and ceramic ware</td>
<td>Rs. 15 lakh PA</td>
<td>1.60</td>
<td>10</td>
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<tr>
<td>9</td>
<td>Scientific glass blowing</td>
<td>Rs. 4 lakh p.a.</td>
<td>0.45</td>
<td>08</td>
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<td>10</td>
<td>FRP Items</td>
<td>Rs. 3.5 lakhs PA</td>
<td>0.45</td>
<td>05</td>
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<tr>
<td>11</td>
<td>A.C. Pipes and fittings</td>
<td>Rs. 7.5 lakhs PA</td>
<td>0.45</td>
<td>75</td>
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<tr>
<td>12</td>
<td>Screen printing</td>
<td>Rs. 2,50 lakhs PA</td>
<td>0.08</td>
<td>03</td>
</tr>
<tr>
<td>13</td>
<td>Plaster toys</td>
<td>30000 toys PA</td>
<td>0.08</td>
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### VIII. MECHANICAL PRODUCTS

<table>
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<tbody>
<tr>
<td>1</td>
<td>Wire nails and panel pins 15 m.t.p.m.</td>
<td>1.00</td>
<td>09</td>
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</tr>
<tr>
<td>2</td>
<td>Wood screws</td>
<td>75000 gross PA</td>
<td>3.00</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Wick stove and lamps</td>
<td>3600 Nos. PM</td>
<td>2.20</td>
<td>08</td>
</tr>
<tr>
<td>4</td>
<td>Wheel barrows (for agriculture)</td>
<td>Rs. 3/- lakh PA</td>
<td>1.25</td>
<td>05</td>
</tr>
<tr>
<td>5</td>
<td>Cold headed bolts and nuts150 t.p.a.</td>
<td>6.00</td>
<td>08</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Stainless steel domestic utensils</td>
<td>150 t.p.a.</td>
<td>3.00</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>Aluminium domestic utensils</td>
<td>240 t.p.a.</td>
<td>7.00</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>Hospital equipments</td>
<td>4800 Nos. PA</td>
<td>2.25</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>Gen. Engg. workshops</td>
<td>Rs. 20000/- p.m.</td>
<td>0.50</td>
<td>05</td>
</tr>
<tr>
<td>10</td>
<td>Staple pins (white)</td>
<td>50 m.t.p.a.</td>
<td>9.75</td>
<td>25</td>
</tr>
<tr>
<td>11</td>
<td>Paper pins, gem clips etc.1 t.p.m.</td>
<td>1.30</td>
<td>07</td>
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<tr>
<td>12</td>
<td>PP Caps and metal caps</td>
<td>72 lakhs caps PA</td>
<td>1.25</td>
<td>08</td>
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<tr>
<td>13</td>
<td>Animal drawn agricultural implements</td>
<td>10000 assorted sizes P.A.</td>
<td>0.40</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Quantity/Details</td>
<td>Unit Price (Rs)</td>
<td>Rate (Nos/PA)</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-----------------</td>
<td>---------------</td>
</tr>
<tr>
<td>14.</td>
<td>Steel furniture</td>
<td>Rs. 8 lakh P.A.</td>
<td>1.00</td>
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<tr>
<td>15.</td>
<td>Aluminium furniture</td>
<td>1200 chairs, 175 sofas, 300 teapoy PA</td>
<td>1.25</td>
<td>10</td>
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<tr>
<td>16.</td>
<td>Gobar gas plants</td>
<td>10 Nos. p.m.</td>
<td>0.75</td>
<td>05</td>
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<tr>
<td>17.</td>
<td>Destoner-food grain cleaning unit</td>
<td>3600 t.p.a.</td>
<td>0.40</td>
<td>03</td>
</tr>
<tr>
<td>18.</td>
<td>Umbrella ribs and fittings</td>
<td>2000 gross p.m.</td>
<td>2.50</td>
<td>12</td>
</tr>
<tr>
<td>19.</td>
<td>Non-ferrous foundry (Pitfurnace)</td>
<td>53 m.t. p.a.</td>
<td>1.50</td>
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<tr>
<td>20.</td>
<td>Builders' hardware</td>
<td>48000 doz of hinges, tower bolts, handles etc P.A.</td>
<td>2.25</td>
<td>10</td>
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<tr>
<td>21.</td>
<td>Pressure stoves</td>
<td>1500 Nos. PA</td>
<td>2.20</td>
<td>03</td>
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<tr>
<td>22.</td>
<td>G.I. Buckets</td>
<td>18000 Nos. PA</td>
<td>0.30</td>
<td>04</td>
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<tr>
<td>23.</td>
<td>Rolling shutters</td>
<td>8 Nos. PM</td>
<td>0.50</td>
<td>05</td>
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<tr>
<td>24.</td>
<td>Metal doors and windows frames</td>
<td>Rs. 400000/- PA</td>
<td>1.25</td>
<td>06</td>
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<tr>
<td>25.</td>
<td>T.V. Stands</td>
<td>6000 Nos. PA</td>
<td>0.35</td>
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**IX ELECTRICAL PRODUCTS**

<table>
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<tr>
<th></th>
<th>Description</th>
<th>Quantity/Details</th>
<th>Unit Price (Rs)</th>
<th>Rate (Nos/PA)</th>
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<tbody>
<tr>
<td>1</td>
<td>Miniature lamps</td>
<td>9,00,000 Nos. PA</td>
<td>1.60</td>
<td>18</td>
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<tr>
<td>2</td>
<td>Emergency lamps</td>
<td>10,000 Nos. PA</td>
<td>1.20</td>
<td>07</td>
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<tr>
<td>3</td>
<td>Chokes and starters for fluorescent lamps</td>
<td>(a) Chokes 36000 Nos. PA</td>
<td>0.75</td>
<td>08</td>
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<tr>
<td></td>
<td></td>
<td>(b) Starters 12000 Nos. PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Street light fittings</td>
<td>6000 Nos. PA</td>
<td>3.00</td>
<td>03</td>
</tr>
<tr>
<td>5</td>
<td>Domestic electrical appliances</td>
<td>20000 Nos. PA</td>
<td>2.25</td>
<td>15</td>
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<tr>
<td>6</td>
<td>Bakelite electrical accessories</td>
<td>700 gross PA</td>
<td>0.50</td>
<td>10</td>
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<tr>
<td>7</td>
<td>Small transformers</td>
<td>6000 Nos PA</td>
<td>0.30</td>
<td>08</td>
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<tr>
<td>8</td>
<td>PVC Wires and cables</td>
<td>36000 coils of 100 mtrs each PA</td>
<td>3.00</td>
<td>09</td>
</tr>
<tr>
<td>9</td>
<td>Black adhesive insulation tape</td>
<td>5000000 Rolls P.A.</td>
<td>1.75</td>
<td>05</td>
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<tr>
<td>10</td>
<td>GLS Lamps</td>
<td>500000 Nos PA</td>
<td>2.50</td>
<td>07</td>
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<tr>
<td>11</td>
<td>Voltage stabilizers</td>
<td>600 nos. 5 AMPs PA</td>
<td>0.75</td>
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</table>
X. ELECTRONIC PRODUCTS

1. Radio assembly (transistors) 10000 Nos. PA 1.50 05
2. Loud speakers 33000 Nos. PA 0.50 17
3. Electronic fan regulators 12000 Nos. PA 0.20 05
4. Entertainment amplifiers 2000 Nos. PA 0.60 08
5. Electronic emergency lamps 4200 Nos. P.A. 1.00 05
6. Battery eliminators 5 lakh Nos. PA 0.45 05
7. Inverters and converters upto 50 KVA
   Inverters - 1200 Nos. PA ; Converters - 300 Nos. PA 0.50 16
8. Electronic gas lighters 60000 Nos. PA 0.70 08
9. Electronic battery charger 500 Nos. PA 1.00 05
10. Electronic door bell 10000 PA Nos. 1.00 05
11. Electronic lock 10000 Nos. PA 1.00 05
12. Transformer for electronic applications 30000 Nos. PA 5.50 06
13. Intercom systems 100 sets p.m. 0.50 15
14. Solid state voltage stabilizer 1000 Nos. P.A. 1.00 10
15. Insect killer/rodent repeller (electronic) 10000 Nos. PA. 1.00 05
16. Electronic teaching aid 1000 Nos. PA 0.75 05
17. Digital clocks 5000 Nos. PA 0.50 07
18. Audio cassette (blank) 1 lakh Nos. PA 10.00 05
19. Electronic toys and games 12000 Nos. PA 5.00 07
20. Blank video cassette 1. 1akh Nos. PA 20.00 07
21. Printed circuit board 8000 sq. mtr. PA 10.00 30
22. Wire wound resistors 600000 Nos. PA 2.00 10
23. Electronic weighing scales upto 10 kg. 1000 Nos. PA 2.00 25
<table>
<thead>
<tr>
<th></th>
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<th>XI WOOD PRODUCTS</th>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>1</td>
<td>Bullock carts (modern)</td>
<td>600 carts PA</td>
<td>0.80</td>
<td>05</td>
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<tr>
<td>2</td>
<td>Wooden furniture</td>
<td>Cots - 15 Nos. Almirah 50 Nos Chairs - 100 Nos PA Racks - 120 Nos</td>
<td>1.50</td>
<td>08</td>
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<tr>
<td>3</td>
<td>Wooden electrical accessories</td>
<td>Rs. 150000 p.a.</td>
<td>0.20</td>
<td>05</td>
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<tr>
<td>4</td>
<td>Wooden packing cases (Assorted sizes)</td>
<td>Rs. 10 lakhs PA</td>
<td>1.50</td>
<td>08</td>
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<tr>
<td>5</td>
<td>Wood plaining</td>
<td>Rs. 1,50,000/- PA</td>
<td>0.85</td>
<td>05</td>
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<tr>
<td>6</td>
<td>Wooden toys</td>
<td>Rs. 8,00,000/- PA</td>
<td>1.25</td>
<td>09</td>
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<tr>
<td>7</td>
<td>Wooden meter boards</td>
<td>2500 Nos. P.M.</td>
<td>1.00</td>
<td>06</td>
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<tr>
<td>8</td>
<td>Drawing boards</td>
<td>5000 boards PA</td>
<td>1.30</td>
<td>07</td>
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<tr>
<td>9</td>
<td>Wooden coat hangers</td>
<td>3600 doz PA</td>
<td>0.30</td>
<td>05</td>
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<thead>
<tr>
<th></th>
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<th>XII LEATHER INDUSTRIES</th>
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<tbody>
<tr>
<td>1</td>
<td>Leather chappals/shoes</td>
<td>15000 pairs PA</td>
<td>0.20</td>
<td>05</td>
</tr>
<tr>
<td>2</td>
<td>School bags</td>
<td>9000 bags P.A.</td>
<td>0.15</td>
<td>05</td>
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<tr>
<td>3</td>
<td>Leather/Rexin utility articles</td>
<td>Rs. 6.5 lakh PA</td>
<td>0.50</td>
<td>16</td>
</tr>
<tr>
<td>4</td>
<td>Leather watch straps</td>
<td>1.20 lakh Nos. PA</td>
<td>0.30</td>
<td>04</td>
</tr>
<tr>
<td>5</td>
<td>Hand gloves</td>
<td>75000 pairs PA</td>
<td>1.00</td>
<td>08</td>
</tr>
<tr>
<td>6</td>
<td>Leather garments</td>
<td>15000 pieces PA</td>
<td>4.00</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>Leather shoe upper closed</td>
<td>75000 pairs PA</td>
<td>2.32</td>
<td>14</td>
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<table>
<thead>
<tr>
<th></th>
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<th>XIII. HOUSEHOLD INDUSTRIES</th>
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<tbody>
<tr>
<td>1</td>
<td>Pottery making</td>
<td>Rs. 3/- lakh PA</td>
<td>0.20</td>
<td>05</td>
</tr>
<tr>
<td>2</td>
<td>Stone cutting, carving and buildings</td>
<td>300 Sq. mtr. PM</td>
<td>0.25</td>
<td>04</td>
</tr>
<tr>
<td>3</td>
<td>Plaster toys</td>
<td>3000 toys PA</td>
<td>0.08</td>
<td>04</td>
</tr>
<tr>
<td>4</td>
<td>Jewellery</td>
<td>Rs. 100000/- PA</td>
<td>0.25</td>
<td>03</td>
</tr>
<tr>
<td>5</td>
<td>Bamboo products</td>
<td>Rs. 35000/- PA</td>
<td>0.02</td>
<td>03</td>
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<tr>
<td>6</td>
<td>Cane works</td>
<td>Rs. 1 lakh PA</td>
<td>0.10</td>
<td>05</td>
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<tr>
<td>7</td>
<td>Broom making</td>
<td>Rs. 5000/- pm.</td>
<td>0.10</td>
<td>03</td>
</tr>
<tr>
<td>8</td>
<td>Photo frame</td>
<td>2000 c.f.t. PA</td>
<td>0.40</td>
<td>03</td>
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<tr>
<td>9</td>
<td>Sealing wax making</td>
<td>300 kgs pm.</td>
<td>0.10</td>
<td>04</td>
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</tr>
<tr>
<td>10.</td>
<td>Carpentry</td>
<td>Rs. 5000/- pm.</td>
<td>0.10</td>
<td>03</td>
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<tr>
<td>11.</td>
<td>Blacksmithy</td>
<td>Rs. 5000/- pm</td>
<td>0.15</td>
<td>03</td>
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<tr>
<td>12.</td>
<td>Motor winding</td>
<td>30 units pm</td>
<td>0.20</td>
<td>03</td>
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<tr>
<td>13.</td>
<td>Wet rice grinding</td>
<td>Rs. 1/- lakh PA</td>
<td>0.20</td>
<td>02</td>
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<tr>
<td>14.</td>
<td>Tea repacking</td>
<td>10 t.p.a.</td>
<td>0.50</td>
<td>06</td>
</tr>
<tr>
<td>15.</td>
<td>Home scale jack fruit preparation</td>
<td>6.5 t.p.a</td>
<td>0.30</td>
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</table>

**X SMALL SCALE SERVICE/BUSINESS (INDUSTRY RELATED) ENTERPRISES**

<p>| | | | | |</p>
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<tr>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Auto repair and servicing</td>
<td>Rs. 2.5 lakh PA</td>
<td>0.75</td>
<td>05</td>
</tr>
<tr>
<td>2.</td>
<td>Radio repairs</td>
<td>360 radio/tape recorders PA</td>
<td>0.10</td>
<td>03</td>
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<tr>
<td>3.</td>
<td>Watch repair</td>
<td>Rs. 40000/- PA</td>
<td>0.40</td>
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<tr>
<td>4.</td>
<td>Repair of domestic electrical appliances</td>
<td>Rs. 0.75 lakh PA</td>
<td>0.25</td>
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<td>5.</td>
<td>Photo studio</td>
<td>Rs. 0.90 lakh PA</td>
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<td>6.</td>
<td>Laundry</td>
<td>Rs. 1 lakh PA</td>
<td>0.15</td>
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<tr>
<td>7.</td>
<td>Dry cleaning</td>
<td>Rs. 1 lakh PA</td>
<td>0.30</td>
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<td>8.</td>
<td>Photocopying</td>
<td>150 copies p.d.</td>
<td>0.50</td>
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<td>9.</td>
<td>Job typing</td>
<td>Rs. 20000/- p.a.</td>
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<tr>
<td>10.</td>
<td>Repair of tractors, diesel engines etc.</td>
<td>Rs. 60000/- p.a.</td>
<td>0.30</td>
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<td>11.</td>
<td>Cycle repairing</td>
<td>Rs. 20000/- PA</td>
<td>0.05</td>
<td>02</td>
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<td>12.</td>
<td>TV repairing and servicing</td>
<td>150 sets pm</td>
<td>0.25</td>
<td>03</td>
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<tr>
<td>13.</td>
<td>X-ray clinic</td>
<td>Rs. 2.50 lakh PA</td>
<td>1.50</td>
<td>0.5</td>
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<tr>
<td>14.</td>
<td>Weigh bridge</td>
<td>Rs. 50000/- P.A.</td>
<td>0.80</td>
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<tr>
<td>15.</td>
<td>ISD/STD Booths for Industries</td>
<td>Rs. 0.75 lakh P.A.</td>
<td>0.15</td>
<td>02</td>
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<tr>
<td>16.</td>
<td>Teleprinter/Fax services</td>
<td>Rs. 1.50 lakh PA</td>
<td>0.50</td>
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**TOTAL**

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<tr>
<td>708.01</td>
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The analysis clearly demonstrates that the district offers a lot of industrial potential. Improvement in Electrical power position and liberal finances from the banks and financial institutions coupled with the involvement of committed entrepreneurs puts the district on the high road for the rapid development of SSI units.