

CHAPTER V

INDUSTRIES

*U*dupi district belongs to Zone-2 as there are few industries as per the 2006-11 new industrial policy. The number of employees working in the secondary sector i.e., industrial sector and tertiary sector or service sectors like Railway, Transport, Communication, Storage, Hotels and Restaurants, Banking and Insurance, Real estate, Ownership of Dwellings and Business Services, Trade, Public Administration and other services were 3,31,154.

The mineral resources required for industrial development like Alluvial, Laterite, Acid Volcanics, Dolerite and Amphibolites Dykes, Metabasalt, Crossbedded Quartzite etc., are available in the district. Udupi district has an 80 km long coastal area and 1,00,102 hectares of land with rich and vast forest area. Plantation crops such as Coconut, areca-nut, cashew-nut, rubber, cocoa, banana, mango etc., supply the much needed raw materials to various industries. Fishing has provided employment to many people. This has led to the development of fish curing, fishmeal, fish oil and other industries in fisheries. The District has 14 medium scale industries like Manipal Security Printers, Manipal; Canara Security Press, Manipal; Manipal Power Press, Manipal; Manipal Printers and Publishers, Manipal; Lamina Foundries, Nitte; Manipal Publisher (Pvt) limited; Dakshina Kannada Co-operative Sugar Factory, Brahmavar; Baliga Export Pvt.(ltd); Lucy and Lucy Fisheries Pvt.(ltd) Malpe; Amita Julian Marine Pvt(ltd) Hiriadka, etc. The capital investment in these industries is ₹5,608.71 lakhs. They have provided employment to 2,960 people. The district has 7,183 small and tiny industries. The capital investment in these industries is ₹31,189.27 lakhs. These have provided employment to 44,076 people, there is a good network of new roads

to all parts of the district due to the presence of modern industries. 'The west coast Highway', Konkan Railway Route and Malpe Port etc, have initiated industrial development and overall development of the district. There are two Medical colleges, one Dental college, three Engineering colleges and four Polytechnic colleges in the district. In addition, there are several Industrial training colleges which provide technical and vocational education, which in turn has facilitated industrial growth.

At the end of March 2005, the Karnataka Industrial Area Development Board (KIADB) distributed 72.20 acres of land out of 90 acres, as 90 sites in Shivalli of Udupi Taluk. In the same taluk 175.25 acres of land has been developed into an industrial area in Nandikur. In 2006-07, Karnataka State Small Industrial Development Council (KSSIDC), has developed Manipal Industrial Estate on 9.97 acres of land, Karkala Industrial Estate on 10 acres, and Koteshwara Industrial Estate on 6.2 acres of land and has provided Industrial sheds. Banking facility is excellent in the district, with 222 Commercial Banks, 11 Regional Rural Banks, 32 Urban Area Co-operative Banks, 53 other Co-operative Banks, three Primary Land Development Banks, 19 District Central Co-operative Banks and three Karnataka State Agricultural Co-operative and Rural Development Banks. They disperse short and medium term loans to the industries. State Industry Department, Karnataka State Financial Corporation and National Small Industries Corporation etc., are established for the very purpose of sanctioning loans to industries. These factors have given a fillip to the industrial development in the district.

New Industrial Policy

According to the New Industrial Policy (2006-11), the aim is to achieve a 12% growth in the industrial sector and provide employment to 10 lakh people. It is aimed to increase the state share at the national level, with a total export from 15 to 20%.

As per the new Industrial Policy, in view of the industrial development, 176 taluks of the state have been divided into three Zones.

As indicated in Dr. D.M. Nanjundappa's Report, 79(seventy nine) taluks are included in the Zone-1. This sector has a maximum number of backward taluks in it.

Karnataka State has 85 taluks in Zone-2, which are backward in industrial growth and are not included in Zone-1 and 3. Udupi, Kundapur and Karkala taluks are included in this sector.

Zone-3 has Bangalore city and Bangalore Rural District (excluding Magadi and Kanakapura taluks which are at present in Ramanagar district), Mysore district's Mysore Taluk and also includes Mangalore Taluk of Dakshina Kannada District. These 12 taluks are industrially developed taluks, and belong to Zone-3

Tiny Industries: The investment in the plant and machinery of a tiny industry is less than ₹25 lakhs, irrespective of the location of the unit.

Small Scale Industries: The investment in the plant and machinery of a small scale industry, whether held on ownership terms or on lease, or by hire purchase does not exceed ₹100 lakhs.

Medium and Large Scale Industry: An industrial unit which is not classified as tiny/small scale/ ancillary industry shall be classified as Medium and Large Scale Industry.

Facilities available for Industries

Udupi, Kundapur and Karkala taluks of the district are backward in industrial development and belong to Zone-2. The facilities provided in this sector are as follows:

1. Capital Investment Subsidy: Small scale industries are eligible for 20% of the value of fixed assets, subject to a maximum of ₹10 lakhs per unit. Addl. Subsidy of 5% of the value of fixed assets, subject to ceiling of ₹One lakh for SC/ST/PH/Minority and ex-servicemen and entrepreneurs. In case of women entrepreneurs, the ceiling for additional subsidy would be ₹five lakhs. These incentives are available only to units financed by KSFC/KSIIDC/Banks/other financial institutions.

2. Exemption of Stamp Duty and Reduction in Registration Charges:
Stamp duty: In respect of Loan and Credit deeds executed for availing term Loans from financial institutions/Banks and for the execution of

Lease, Lease cum Sale and absolute Sale Deeds by KIADB/KSSIDC in respect of Industrial Land/plots allotted, an exemption upto 75% and concessional registration charges at, ₹one per ₹1,000 is given.

3. Waiver of Conversion fine (on Lands Converted for Industrial Use): 75% of the conversion fee is exempted on land which is converted for industrial use (including Mega industry, Large and Medium Scale Industry and Small Scale Industry). For Mega Industry, Large and Medium Industries the maximum limit per unit is 25 acres and for Small Industries it is 10 acres.

4. Acquisition and Allotment of Land through KIADB: With respect to lands acquired for the development of industrial area/ estates or single unit complex, KIADB acquisition charges to be levied in Zones 1 and 2 would be 10%.

5. Subsidy for Setting up of Effluent Treatment Plants (ETPs): One time capital subsidy upto 50% of the cost of ETP, subject to a ceiling of ₹100 lakhs per unit for all categories of industries, for all Zones.

6. Entry Tax and Special Entry Tax Concessions: For Zone 1 and 2, Entry Tax and Special Entry Tax exemption is provided for Plant and Machinery and Capital Goods for an initial period of three years from the date of commencement of project implementation. For this purpose, the term Plant & Machinery and capital Goods include equipment etc which is installed in the power project units for captive generation of electricity and also on raw material, inputs, component parts and consumables (excluding petroleum products) (wherever applicable) for a period of five years from the date of commencement of commercial production.

7. Human Resource Development: Grant of upto five acres of Government land will be considered along with capital contribution of 50% of the project cost, subject to a ceiling of ₹Two crores for Training Establishment and for sector specific training. Recurring cost for operating the training institution, an amount of ₹750/- p.m. per trainee will be provided, subject to a ceiling of ₹15 lakhs per year, for a period of three years. Government will launch a new scheme

to provide ₹750/- p.m. stipend, with an equal contribution by training institutions for on-the-job training in different vocations for the unemployed educated youth, through industrial/service establishments.

ELECTRICITY

Sri Krishna Power House initially supplied electricity for Udupi. After 1956 electricity was supplied from Jog, Udupi Sub Division was included in the Mangalore Division of Mysore State Electricity Board. On 20.09.1973, of the eight taluks of Dakshina Kannada, three taluks were included in the Udupi Division.

On 16-07-1997, Karnataka Electricity Board was renamed as Karnataka Power Transmission Corporation Limited. On 01-06-2002, the supply system of Karnataka Power Transmission Corporation Limited was divided into four companies viz., Bescom, Hescom, Gescom and Mescom, again on 01-06-2005, Mescom was further divided into two companies, viz., Mangalore Electricity Supply Company (Ltd.) and Chamundeshwari Electricity Supply Company. At present, Udupi Division including Udupi District comes under Mescom. In 25-08-1997 from the administrative point of view, Udupi district comprising Udupi, Karkala and Kundapur taluk were separated from Dakshina Kannada District.

The power needed for Udupi district is received from Varahi and the Main Electricity receiving centre of Shimoga. The Varahi project centre through a 220 K.W. Line supplies power to Kemar centre and from there through the 110 K.W. Line, it is redistributed. In the same manner, from the main electricity receiving centre in Shimoga, through 220 K.W. Lines, power is supplied to Haladi centre, then through 110 K.W. lines it is redistributed via sub centres. From Hiriadka, power is supplied to Manipal and Kundapura. At the Manipal Sub Centre, it is converted to 33 K.W. line and distributed to other areas. The district has six industrial power supply units, viz: two in Manipal, two in Kundapur, one in Brahmavar and one in Karkala. The details of Master Unit/ Sub-Centers at the end of March, 2006 are given in the Table 5.1.

Table 5.1: Details of Udupi District's Master Unit/Sub Centers as on 31-03-2006

Name of the Distribution Centre	Capacity	Number of Transformers	Capacity of the Transformer (M.V.A.)	Total Capacity (M.V.A.)
Manipal (110/33/11)K.V	Udupi Taluk 110/11 K.V. 110/33 K.V.	02 01 01	10 10 20	20 10 20
Hiriadka (110/33/11) K.V.	110/11 K.V. 110/33 K.V.	01 02	10 10	10 20
Nittur (110/11) K.V.	110/11 K.V.	02	10	20
Maduvan (110/11) K.V.	110/11 K.V.	01	20	20
Kunjibettu (33/11)K.V.	33/11 K.V.	02	05	10
Shirva (33/11) K.V.	33/11 K.V.	02	05	10
Brahmavara (33/11)K.V.	33/11 K.V.	02	05	10
Karkala Taluk				
Kemar (220/1100/11) K.V.	220/110 K.V. 110/11 K.V.	01 02	100 10	100 20
Karkala (33/11)K.V.	33/11 K.V.	02	05	10
Hebri (33/11)K.V.	33/11 K.V.	01	05	05
Kundapur Taluk				
Kundapura (110/33/11) K.V.	110/33 K.V. 110/11 K.V.	01 01	10 10	10 10
Haladi (33/11) K.V.	33/11 K.V.	01	10	10
Byndoor (33/11) K.V.	33/11 K.V.	01	05	05
Tallur (33/11)K.V.	33/11 K.V.	01	05	05

Source: District at a glance, Udupi

Table 5.2: Details of Taluk-wise Power Consumption utilised by Consumers
(Units in lakhs)

Taluk	2001-2002	2002-2003	2003-2004	2004-2005
Udupi	1380.88	1080.48	1723.94	1803.49
Kundapura	487.92	432.94	620.33	613.50
Karkala	358.60	250.56	417.00	476.98
Total	2227.40	1763.98	2761.27	2893.97

Source: District at a Glance, Udupi

Table No. 5.3: The details of Power line and Transformer of the district as on 31-03-2006

Sub division	H.T Line (Route Km)	L.T Line (Route Km)	Transformers (Number)
Udupi Taluk			
Udupi	532.69	2174.82	991
Brahmavar	444.592	2209.251	491
Kapu	288.938	1962.849	375
Total	1266.22	6346.92	1857
Karkala Taluk			
Karkala	976.157	3578.941	783
Total	976.157	3578.941	783
Kundapura Taluk			
Kundapur	700.109	2124.309	565
Byndoor	442.654	2470.06	387
Total	1142.763	4594.369	952
District Total	3385.14	14520.23	3592

As per 2001 census, there were 248 inhabited villages in the district. At the end of March 2005, in Udupi taluk there were 99, in Karkala taluk- 50 and in Kundapura taluk 99 inhabited villages had 100% power facility. During the same time, there were 3476 hamlets out of which only 2541 hamlets had power facility. The details of the hamlets which were provided with power facility is as follows: Udupi taluk 1133(1188), Karkala 654(1085) and Kundapur taluk 754(1203). The data given in the brackets indicate the number of Hamlets in their respective taluks. In table 5.4 the details of categorywise power consumption is given.

Table 5.4: Details in Categorywise, talukwise power consumers of the District

Catagory	2001-02			2003-04			2004-05		
	Udupi	Kunda pura	Karkala	Udupi	Kunda pura	Karkala	Udupi	Kunda pura	Karkala
Domestic Use	98,574	44,206	29,901	99,985	46,826	29,277	10,256	50,235	31,998
Industrial Use	3,142	1,346	839	3,264	1,413	880	2,369	1,289	645
Commercial Use	14,061	5,588	3,908	14,998	6,774	4,296	15,153	7,013	4,296
IrrigationPumpsets	21,989	12,472	7,558	22,482	13,021	7,568	21,921	12,870	7,482
Street Lights	4,566	3,431	2,272	5,574	4,110	2,428	164	182	189
Bhagyajyothi	5,646	3,938	3,646	3,432	4,739	3,743	3,494	4,901	3,743

Source: District At a Glance, Udupi

Industrial Estate and Industrial areas

During the implementation of Second Five Year Plan, several programmes were initiated for the development of Small Scale Industries. To provide these industries with facilities like power, water, drainage, road, storage, post office, bank etc., made available at one location, industrial estates were established. The main purpose of the Industrial estates is to provide rapid and uniform development of small industries. During 2006-07, Karnataka State Small Scale Industrial Development Corporation developed and distributed industrial estates to entrepreneurs in the district. The details of the industrial estate and area are given in table 5.5. The sheds in the industrial area are divided into structural models on the basis of area occupied in square feet. For details refer Table 5.6 and 5.7.

Table 5.5: Details of K.S.S.I.D.C. Industrial Estate in the district as on 2006-07

SL. No	Taluk	Location of Industrial Estate	Details of sheds formed					Total	Distributed	Vacant	Remarks
			B	C	D	M	SM				
1	Udupi	Manipal	12	16	4	14	6	56	48	8	B-03 SM-05
2	Karkala	Karkala	2	-	8	-	-	10	7	3	D-03
3	Kundapura	Koteshwara	-	5	3	-	4	12	6	6	C-02D-01 SM-03

Table 5.6: Area of Sheds in Industrial Estates

SL. No	Model	Area that can be used for Shed Construction (sq.ft)	Rate In ₹ lakhs	Monthly Installments in ₹
1	B	3,000	9.00	20,000
2	C	1,500	5.50	12,000
3	D	750	3.60	8,000
4	M	230	1.00	2,200
5	SM	480	1.60	3,600

Table No 5.7: Details of Sheds in Industrial Estates

SL. No	Name of the place	Special	P	Q	R	Total	Distributed	Vacant
1	Manipal (Shivalli)	25	01	06	05	37	24	13
2	Karkala	-	-	-	-	-	-	-
3	Koteshwara	04	06	08	05	23	18	05

Source: District Industrial Centre, Udupi

P - Means 21x45 m. measuring 945 sq.m. and for every sq.m ₹ 200.

Q - Means 21x26 m. measuring 546 sq.m. and for every sq m ₹ 100.

R - Means 21x18 m measuring 378 sq. m. and for every sq m ₹ 50.

In the Manipal industrial area there are printing presses, industries producing bricks, carpets, chemicals, PVC pipes, plastic bags, cardboard boxes, packaging materials, plastic water tanks, eatables/bakery products etc. In Karkala there are two units producing metal boxes and dry vegetable processing. In Koteshwara there are units producing bakery products, aluminium cables, metal work, grass oil, PVC pipes, plastic materials etc.,.

MEDIUM SCALE INDUSTRIES

Those which are not classified as Tiny and Small Industries are all classified as Large and Medium Scale Industries. Those projects in which the capital investment in fixed assets exceeds ₹ 100 crores are called Mega projects. At present, out of 14 Medium Scale Industries in the district only 11 are functioning. Among the total industries, three were in Karkala taluk, out of which one is closed. The remaining 11 industries were in Udupi taluk, out of which two are closed. In Kundapur taluk there are no Medium Scale Industries. Among the total number of Industries of Udupi taluk, six are located in Manipal. The entrepreneurship of the Pai families can be seen behind these industries. When we observe industrial expansion, the growth of industries are conducive wherever entrepreneurship, financial facilities and basic necessities are in good condition. An environment conducive for the growth of industries is essential if many more industries are to be established. In table 5.8, details of medium scale industries of the district along with Industry name, address, year of establishment, product, amount invested as capital and number of employees are given.

Table: 5.8: Details of Medium Scale Industries of the district at the end of March 2006.

Sl. No	Name of Industry	Year of Establishment	Product	Capital in ₹ Lakhs	Employment Created in number
1	M/s Manipal Security Printers, Manipal	1984	Safe Printing of security document and high quality document required by business organisations	76	149
2	M/s Canara Security Press, Manipal	1984	Lottery Tickets/Banking Cheque book printing	394.40	125

Sl. No	Name of Industry	Year of Establishment	Product	Capital in ₹ Lakhs	Employment Created in number
3	M/s Manipal Power Press, Manipal	1941	Printing	509.00	500
4	M/s Manipal Printers & Publishers, Manipal	1970	News Paper Printing	252	136
5	M/s Lamina Foundries, Nitte, Karkala Taluk	1983	Break Drum of Vehicles	328	220
6	M/s Indian Plywood Manufacturing Company, Hangarkatte, Udupi Tk	—	Plywood	43	closed
7	M/s Manipal Publishing Pvt. Ltd.	1982	Printing	503	72
8	M/s Dakshina Kannada District Co-operative Sugar Factory, Brahmavara, Udupi Dist	1985	Sugar production	875	closed
9	M/s Baliga Export Pvt.Ltd. Udupi	1985	Nylon fishnet	173.31	350-400
10	M/s Lucy and Lucy Fisheries Pvt. Ltd., Malpe	—	Fisheries	152	Closed
11	M/s Amita Julian Marine Pvt.Ltd. Hiriadka	1999	Nylon fig net	656	100
12	M/s Keltech Energies Pvt. Ltd.,	1980	Water gel explosives	500	85
13	M/s Subosaka A.I.V. Co. Pvt, ltd., Miyar, Karkala	1996	Granite	247	34
14	M/s Best Sellers, Bajal Street, Manipal	1999	Readymade garments	1500	900

Manipal Security Printers and Manipal Power Press, Manipal

These organisations are a very important contribution by the Pai families. Manipal Power Press was started before Independence in the year 1941, while Manipal Security Printers was established in April 1984. Shri Satish Pai and Shri Mohandas Pai are the architects behind these organisations. Manipal Security Printers are engaged in printing security document and high quality document required by business organisations. The capital investment of this organisation is ₹76 lakhs. It has provided employment to 149 people. Manipal Power Press has a very modern printing system with ₹509 lakhs as capital

investment, with 500 employees. Both these organisations excel in the printing system of the district.

Canara Security Press, Manipal

This organisation was established in the month of April 1984. It undertakes secure printing of Karnataka State Lottery and Bank Cheques. The capital investment is ₹394.4 lakhs and has provided employment to 125 people.

Manipal Printers and Publishers, Manipal

This organisation was established in undivided Dakshina Kannada district, in the year 1970 due to the foresightedness of Shri Upendra Pai. His dream was to have a separate newspaper for the coastal districts with an intention of providing a platform to respond and fulfill the desires of the local people. Later it expanded its area of concern by introducing *Kugraama yojane* (backward village project) and *Dattugrama Yojane* (Village adoption project) for the first time through the print media in the district.

‘Udayavani’, with its slogan ‘Beautiful Kannada daily of Coastal Karnataka’ is a daily with the highest circulation, in the district. With a capital investment of ₹252 lakhs, it has provided employment to 136 people. This newspaper which has a circulation of more than two lakh is published simultaneously from three places (Manipal, Bangalore and Bombay). In view of the industrial development in the district, this press has been installed with modern printing machinery which is a matter of pride. At present, this organisation is growing at a fast pace under the name of ‘Manipal Media Network’. In 1976, a monthly magazine by name ‘Tushara’ was published. This magazine had a circulation of 20,000 copies. In the same year, another weekly magazine called ‘Roopatara’ started publication and has a circulation of 50,000 copies. ‘Taranga’ a weekly magazine, which started publication in the year 1981 has a sale of 80,000 copies. ‘Tunturu’ a quarterly magazine was published in the year 1999 which has a sale of about 25,000 copies.

Lamina Foundries, Nitte

Lamina Foundries was started in the rural area of Nitte, in Karkala taluk. It was established in 1983, and started its production in the month of October. Now this organisation has become famous at the national and international level. Brake drums used in vehicles are produced here. The capital investment of this industry is ₹328 lakhs. 220 people are employed here.

Dakshina Kannada Co-operative Sugar Factory, Limited

This factory is registered under R.C.S. 2756/73-74. Commercial production was started in 22-01-1985, the sugarcane grinding capacity of this factory is 1250 Tonnes per day. Sugar cane was supplied to this factory from Udupi and Dakshina Kannada districts, Bhatkal of Uttara Kannada district, and Hosanagara taluk of Shimoga district. The capital investment was ₹875 lakhs. The number of people employed in this industry was 176, out of which 160 people were permanent and 16 people were employed on temporary basis. This industry suffered heavy financial losses. The loss accrued during 2003-04 was ₹4387.73 lakhs. At the end of May 2003, it suspended sugarcane grinding. The total amount of sugarcane that was grinded, sugar produced and the yield from start to end of the production is given in the table 5.9.

Table 5.9: Details of grinded sugarcane and sugar produced from 1985 to 2003

Years	Total Sugarcane grinded	Sugar produced	Sugar Input (%)
1985-1986	9285.990	6719	6.76
1986-1987	30485.190	25271	7.85
1987-1988	49595.260	38779	8.18
1988-1989	56889.370	52581	9.10
1989-1990	23824.830	21555	9.28
1990-1991	26001.020	24818	9.28
1991-1992	48809.510	41300	8.92
1992-1993	50237.880	37071	7.46
1993-1994	53737.370	50450	8.70
1994-1995	95101.250	81466	8.60
1995-1996	143008.100	120120	8.40
1996-1997	76309.157	69015	8.88
1997-1998	61993.800	50586	7.46
1998-1999	78736.138	75232	9.55
1999-2000	76674.569	71970	9.40
2000-2001	58176.717	53050	9.10
2001-2002	55320.740	49300	8.93
2002-2003	56795.600	39250	7.05

Baliga Export Private Limited, Udupi

In the field of fisheries, Baliga Export Private Limited is well known and has a prominent place in the district and has earned a good name. This industry was established on 1st November 1985, under the leadership of Shri Ramananda Baliga, their services have now spread across the markets world wide.

To promote fisheries which is the natural occupation of Coastal Karnataka, in a scientific way, and to establish direct sea-route link with foreign countries, a port was established at Malpe. Similarly, boat building units were also created. Thus equipped with modern technology, Malpe was officially declared as the centre for fishing and fish export. The demand for nylon nets needed for fishing increased in and around Malpe. Besides, at the national level also there was a nationwide shortage of nets. To fulfill the need of the district's fishermen, this enterprise was started with an initial capital of ₹ one crore. In the beginning, this enterprise received subsidy from the Fisheries Department and State government, presently, it does not receive any grants. 350 to 400 labourers work here. Most of them are local people. The organisation provides good boarding and lodging facilities to the non-local labourers. At present its capital investment is ₹173.31 lakhs.

This industry mainly produces nylon fishing nets and exports its products to Gulf Countries, Africa and Sri Lanka. European countries too have placed orders as the quality of the nets are good, agreement in this regard is underway with these countries. The Government's liberalization and globalization policy has increased the international demand for nets thereby giving a filip to factory production. 80% of the raw materials needed for production are imported from Europe and south-east countries, remaining 20% is bought locally. This industry has expanded past the district limits and with its product quality has entered international markets. Its annual turnover at present is around ₹26 crores. Thus, since the last two decades, it has been supplying nylon nets, important for the survival of the fishermen and has made its presence felt in the district industrial area, and is sailing towards progress.

Amita Julian Marine Private Limited, Manipal

This industry was established in 1999 in Manipal Industrial Extension. It has its branch in Hiriadka also. It produces nylon fish

nets. The raw materials required for the production is sourced from Bombay, Chennai and Bangalore city.

It exports its product of nylon fishnets to foreign countries like Japan, Sri Lanka, Bangladesh, Nigeria and African countries. Locally this industry has provided employment to 100 workers. So far it has not received any kind of subsidy from the Government. With an initial capital investment of approximately ₹656 lakhs, this company has responded to the demands of fishermen, and created employment for the local people and presently attracts jobseekers from Kerala, Andhra Pradesh and Tamil Nadu. Amita Julian Marine Private Limited has thus contributed immensely to the development of fisheries in the district.

Keltech Energy Private Limited

This company was established in the year 1980, in Varanga, situated in Karkala-Hebri road. It was started with a sponsorship from Chougule Company, which is also a partner in the company. Dyopchit Company based in America, has extended technical support to this company. It produces explosives which are different from the traditional explosives. The capital investment is ₹500 lakhs and has provided employment to 85 people.

Subosaka A.I.V. Company

Subosaka is the name of a place in Japan. A very famous Buddha temple is situated here. The management of this temple, has started an industry which produces rock slabs and rock statues needed for Bhoudha Viharas. The industry is called as Phoniha A.I.V. The subsidiary of this industry called Subosaka A.I.V., has started its production near Karkala in 1996. The capital investment was ₹247 lakhs and number of people employed here are 34. The rocks available around Karkala provide raw materials to this industry. Statues for the temples and slabs for arches are carved using these rocks.

Best sellers, Bajal street, Manipal

Best sellers is another contribution from the Pai group of Manipal to the District Industrial Sector. It is situated on Bajal street in the heart of Manipal. It is a readymade garment industry where more than 900 women are employed. The capital investment is ₹1,500 lakhs. The speciality of this industry is that it has given 100 percent jobs to the local people. This has become a life sustaining enterprise for

the families in and around 10 km of Manipal. Started in the year 2000, it produces 'readymade garments'. The product is exported entirely to foreign countries. Officially the product is not available in the local market. Undivided Dakshina Kannada district did not have a readymade garment factory, this industry was started with the intention of providing employment to locals. Apart from providing employment it also imparts education and knowledge.

This organisation trains the local people and later appoints them in the organisation so that the quality and efficiency in producing readymade garments is maintained. This enterprise exports its products, only to international markets such as England, Germany, Italy and America. The raw materials needed, are sourced from Bombay and Bangalore. The present annual turnover of this company is ₹15 to ₹20 crores. It is a fast growing industry and is marching towards profit success. In the field of readymade garment manufacturing, the company has taken the district to a highly competitive level.

Information Technology based Industries

Udupi District which excels in the academic field, has a rich human resource. The entrepreneurs of the district presently have many favourable possibilities in the Information Technology Sector. Industries based on information technology with intelligence as its capital have commenced work. Four companies have been established here. They have very good growth opportunities.

In Kalyanapur, near Udupi district, a young entrepreneur Rohit Bhat established Robosoft Private Limited Company in 1996. It had a capital investment of ₹15 crore till 31-03-2007. Its annual turnover is ₹12 crores. At present 400 employees are working in this company and its aim is to create an additional of 400 employments by 2007.

The main product of this company is 'intellectual assets'. It develops 'Platforms' which are used in computer operating systems of 'Windows' and 'Mac'. It was produced and developed by this company and has helped to achieve effective results in the working efficiency and application of computer operating systems of 'Windows' and 'Mac'. The company is achieving progress as it facilitates the application and

work efficiency in the right direction and right manner as per customers expectations and demands. Once the product is inbuilt into the customers work system, it will be upgraded as per their requirements. If there are any discrepancies found in the working procedures, then as a special service, Robosoft Technology helps in detecting the problem, and provides training for technological efficiency etc. This has helped the company to achieve success in a short period. The company has developed nearly hundred products which are supplied to 28 enterprises around the world.

The products which are developed with an intention of research are like new modules with higher technical efficiency and market strategy which attracts customers. Robosoft has become one of the leading companies in the district due to the high speed of internet connectivity, high standard of human resource in the technology field, and the entrepreneurship of the management. This company has collaborations with world famous companies like Adobe Solution Network, Apple Developer Program and MSDN Professional Network.

Manipal Information Technology, Talash Technology, Zeta Cyber Solutions, Manipal Dot Net Pvt. Ltd. etc are also information technology based industries. There is a perception that these companies will grow in the future. The details of the export business undertaken by Information Technology organisations of the district is as follows:

Financial Year	Name of the Organisation	Export Business (₹ in lakhs)
2006-2007	1. Robosoft Technologies	1189.10
2000-2001	2. Manipal Dotnet	83.98
2000	3. Zeta Cyber Solutions	151.37
2000	4. Manipal Info Tech Org	489.48

Export based Industries

Most of the industries in the district, export their products to foreign countries, thereby earning valuable foreign exchange which has helped in the economic growth of the district. The details of the product of the industries and foreign markets to which these products are exported are given in the table 5.10.

Table No. 5.10: Details of Export

Name of the Enterprise	Product	To Countries Exported
Bell- O -Seals, Udupi	Pipe Valve	Indonesia, Malaysia, S Africa, Taiwan, Japan, Italy, Thailand, Arab Countries
Baliga Export Pvt. Ltd, Udupi	Nylon Fish Nets	Arab Countries
Mahalasa Exports, Hiriadka, Udupi	Cashew nuts	Japan, Britain, America, Greece, Rotterdam
Zeta Cyber Solution Pvt. Ltd, Manipal	Software Development	America(USA), Britain(UK)
Sindhu Plastics, Manipal	PVC Flexible Suction Pipe	Sri Lanka, Mid East Countries
Sri Vinayaka Cashew Export, Karkala	Cashew nuts	Japan, England, America, Canada, Australia
Bola Raghavendra Kamat Sons, Karkala	Cashew nuts and Cashew Oil	Japan, England, America, and S Africa, Canada, West Indies, Kenya
Gayatri Exports, Karkala	Cashew nuts	Japan, England, USA
Sanoor Cashews, Karkala	Cashew nuts	Japan, England
Lamina Foundries Nitte, Karkala	Breaks Drums of Motor Vehicles,	Germany
	Electrical Motor Body	
Subosaka AIV, Karkala	Granite Slab	Japan
Jayalakshmi Exports Karkala	Cashew nuts	America
Mahamaya Exports, Kukkundoor, Karkala	Cashew nuts	Japan, England, USA
Sourabh Overseas Traders, Kundapoor	Ready made garments	Middle East Countries,
Gajanana Cashew Industries, Hebri, Karkala	Cashew nuts	Japan, England, USA
Bhandari Power Lines Pvt. Ltd., Manipal	Electrical Conductors	Middle East Countries
Chitra Cashews, Mandarthi, Udupi	Cashew nuts	England, USA
Juliana Fishnet Ltd. Manipal	Fishnet	Middle East
Manipal Informators Manipal	Outsource Centre	USA
Zeta Info Tech, Manipal	Software Development	USA
RoboSoft Tech and Talash Technology , Udupi	Software Development	USA
Surendra Kamath and Bros, Kedinge, Karkala	Cashew nuts	USA, England, Middle East, Japan, Canada, South Africa

As most of the people from the district work in the Middle East countries, food products, daily use articles, Udupi jasmine etc are supplied to these markets.

TINY AND SMALL SCALE INDUSTRIES

Data reveals that the tiny and very small scale industries of the district have played a very important role in the district. There are 7,183 tiny and small scale industries in the district. They have provided employment to 44,076 people. With a capital investment of ₹312 crores, most of these industries are involved in activities which are directly related to consumption. The organisations which supply raw material to the industrial sector are less in number. Most of the labourers, craftsmen, professionals of this district have migrated and settled in other parts of the country or abroad. The people who have migrated to other places help their families financially. Hence a good amount of money flow can be observed in this district. One tier in the financial system of this district can be termed as 'Money Order Economy'. People who reside outside the district help their family members with their daily expenditures, education and purchase of house, shops etc. A large number of people from Shirva, Shankarapura, Padubidri and Kapu of Udupi taluk have migrated to Middle East countries. The people who depend on 'Money Order Economy' are less adventurous, they invest their financial resources received from outside in agriculture or in regular income generating field or in definite capital investments. The people who have made trade or business as their occupation from earlier times are Goud Saraswat Brahmins, Muslims and a small group of people from other castes. Though these people are involved in production activity as an extension of their trade, they have not developed into Large Scale Industries. In some sectors, industries work as a link between supply and distribution network. For example, arecanut, granite etc., products are supplied in large quantities to other industries, the district is also a place for selling products of Large Scale Industries to the customers. The people of this district are a little hesitant towards entrepreneurship due to the risks involved. Hence they generally opt for regular income generating professions, involving less risk, they prefer occupations which need discipline, dedication and hard work. Therefore here we find large number of intellectuals in business management, Doctors, Advocates, Professional auditors, etc. Professionals are seen in large numbers holding high positions in other industries. But on the whole the entrepreneurship of establishing large Scale Industries is not developed here. The details of tiny and Small Scale industries established during 1995-96 to 2006-07 is given in the table 5.11.

**Table 5.11: Details of Small Scale Industries Registered in the District
(up to 31-03-2003)**

Sl. No	Details of Product	Unit.No	Capital (in ₹ Lakhs)	No.of Employees
1	Food and beverages	2453	11507.12	15,360
2	Textile Industries	591	1274.76	3,397
3	Wood and wood products	481	1777.68	2,638
4	Printing and Stationery materials	337	4212.85	2,138
5	Leather and Leather products	137	289.50	513
6	Rubber and Plastic	218	2248.34	1,519
7	Chemical Industries	170	909.17	922
8	Glass and ceramics	266	2017.12	3,036
9	General Engineering	421	1504.86	2,333
10	Basic Metal	300	1510.07	1,667
11	Electrical and Electronics	137	599.06	1,612
12	Automobiles	47	241.56	721
13	Transport products and Spare parts	05	4.60	22
14	Ferrous and non-ferrous products	546	80.67	2,048
15	Job works and Repair	110	303.85	398
16	Other services	372	552.93	991
17	Other products	592	2155.13	4,761
	TOTAL	7,183	31189.27	44,076

Food and Beverages

The main components of agriculture based industries include flour mill, Animal and poultry, food production, edible oils, production of ice creams, sugar cane juice and jaggery, rice mill, etc. In olden days women and children from small towns and cities, who belong to trading community purchased tender jackfruit and sweet potato from villages and prepared papads, fryums, and food items solely for the purpose of selling these snacks. Now there is a trend of preparing food items at home and supplying it to traders, who in turn supply it to retail customers. Women from Self-help Organisations manufacture papad and pickles and supply them in large scale to the market. Pickles prepared out of tender Mango, Lemon, amla, cucumber, garlic,

bamboo shoot are available in the market. It is observed that though there is a great demand for tamarind pickles manufactured by the Jain community, the production falls short of demand. Shrimp and fish pickles are also available in the market. There is a demand for papads prepared from jackfruit, sweet potato, urad, potato, rice, ragi, Maida etc. Though manufacture and use of these products are found all over the district, large scale manufacture can be seen in Manipal, Udyavara, Udupi, Shastana, Padubidri, Koteshwara, Mala, Karkala, Kapu, Vandse, Belman, Kukkundoor, Bantakal, Hebri and Bajagoli.

Except for the months from June to August, the weather being very hot, there is a great demand for ice creams in this region. Ice cream is available everywhere from small towns to medium hotels in cities. But the units manufacturing ice creams are few in number. Among them Ideal, Hangyo, Shetty's, Three Man's, Dinky are most popular. In some parts of the city, varieties of ice creams are available. Though 30 ice cream parlours are listed in the yellow pages, it is estimated that there are a large number of ice cream parlours in the district. Packed ice-cream is sold in bakeries, big shopping malls, dairies and other shops.

Normally from December to May end, ice cream parlours have good business, due to holidays, marriage season and other ceremonies, people living in other districts, normally return to their hometowns and there is a great demand for ice-creams. There are very few people who do not like ice cream. During rainy days the demand is less. As people do not prefer this as a staple food, it has a limited market. Ice-cream is one of the food items which is in demand in hotels and food outlets in big markets. At the end of March 2006 there were 2453 food and beverage industrial units in the district. The capital investment was ₹11,507.12 lakhs, it provided employment to 15,360 people.

Textile Industry

Units manufacturing Towels, Napkins and Readymade Garments are the main components of the textile industry. Clothing is one of the fundamental requirements for human beings. Clothes and garments are supplied from two main sources-traditional production (locally prepared) and modern mills.

The district had upto end March 2006, 591 textile industries. Their capital investment being ₹1274.76 lakhs, they have provided

employment to 3397 people. There are an adequate number of units manufacturing readymade garments in the district. Around 4-6 units have grown to the extent of exporting readymade garments. Under the banner of Shri Kshetra Dharmasthala Rural Development Project, there are self-help groups manufacturing readymade garments under the brand name "*Shramik*". This is an important development in local industries.

Wood and Wood Products

Wood cutting, manufacture of furniture, windows, doors, bullock carts, toys, photo frames, wooden inlay work etc belongs to the wood industry catering to domestic use. Even though there are thick forests in Karkala and Kundapur taluks, wood is seldom used these days, for house furniture. Hence instead of wood, alternate materials are used. Door, Window, beams are prepared out of wood.

1. The wood mills prepare wooden planks by sawing wood logs. Mechanised wood mills manufacture furniture used for houses, hotels, shops and industries.

2. In rural areas, workshops manufacture wooden planks and furniture, manually.

3. Units engaged in purchasing fuel wood in wholesale from government forests and private sellers and selling them in retail is a kind of enterprising activity.

In the district upto end March 2006, there were 481 wood based production units in the district. Their capital investment is ₹1777.08 lakhs. They have provided employment for 2638 people.

Printing and Stationery Industry

Printing is the fastest growing industry in the district. In these days when modern computer technology is gaining popularity, it is seen that printing activities are also growing fast. Printing work is not confined to printing press alone, as it was in olden days, it includes Printing and Stationery products like hand bags, paper covers, wax coated papers, cardboard, gum, paper tape, computer stationery items, etc. Stationery projects involve areas, such as books used for writing, bookbinding etc are included. Screen Printing is another form of printing which is in great demand these days. In the district upto end

March 2006, there were 337 printing and stationery units. Their capital investment is ₹4212.85 lakhs. They have provided employment to 2138 people.

Leather and Leather Products

This category includes industries which produce footwear, play items, leather handbags, fancy items etc. In the district upto end March 2006, there were 137 units producing leather goods. The capital investment is ₹289.50 lakhs. They have provided employment to 513 people.

Rubber and Plastic Industries

This category includes units producing polythene bags, plastic items, nylon bags, nylon fishnets, tyre re-treading, PVC pipes, Hawai slippers, ball pens, ball pen refills, plastic garments, plastic bottles, fiber glass etc. In the district upto end March 2006, there were 218 plastic units. The capital investment is ₹2248.34 lakhs. They have provided employment to 1519 people.

Chemicals and Chemical Products

This category includes units producing paints, and varnishes, cement, distemper, scented sticks, printing inks, liquid soaps, phenyl, laundry soap, detergent cake and powder, writing inks, match sticks, scented powders, bleaching powder and several others. In the district upto end March 2006 there were 170 units. The capital investment is ₹909.17 lakhs. They have provided employment to 922 people.

Glass and Ceramics

This category includes lime manufacture, table moulded brick making, manufacturing cement pipe, cutting stones and products from soft stone. In the district upto end March, 2006, there were 266 units. The capital investment is ₹2017.12 lakhs. They have provided employment to 3036 people.

Metal and Metal Products

This category includes units manufacturing gold and silver ornaments, aluminium doors, and brass utensils etc. This industry which is reliant on demand, purchases base metals in wholesale from the large industrial centers in the country. As per the local needs, required items are designed, manufactured and distributed. There are

a large number of professionals involved in the manufacture of ornaments. There are industrial units purchasing aluminum products in wholesale and then manufacturing aluminium doors, windows, furniture and utensils etc. In the district upto end March 2006 there were 300 units. The capital investment is ₹1510.07 lakhs. They have provided employment to 1667 people.

General Engineering

This category includes units producing spare parts for machines, agricultural implements, rolling shutters, grills and gates, steel furniture, oil engines, welding and turning rolls, hardware for builders, bolts and nuts, aluminium, bronze and brass utensils. In the district, upto end March 2006, there were 421 units. The capital investment is ₹1504.86 lakhs. They have provided employment to 2333 people

Ferrous and Non Ferrous

This category includes units producing steel wire, industrial staples, structural, non ferrous castings, machine fabrications, leaf springs, brake drums, central hub of wheels, cylinder liners, steel springs, machine spare parts, moulding rings, agricultural implements, non ferrous fittings and steel products, suitcases, boxes, household utensils such as containers etc. In the district upto end March 2006 there were 546 units. The capital investment is ₹80.67 lakhs. They have provided employment to 2048 people.

Electricals and Electronics

Since the comparative income of the people of this district is good and their standard of living is high, a large number of people use electrical and electronic goods. Spare parts used in such appliances are manufactured in the district. In the district upto the end of March 2006 there were 137 units. The capital investment is ₹599.06 lakhs and employment to 1612 people has been provided.

Transport products and Instruments

This category includes motor vehicle repair and service. It includes units manufacturing vehicle parts, seats, for the benefit of customers. Transportation of goods also belongs to this category. In the district upto end March 2006 there were five units. The capital investment is ₹4.60 lakhs. They have provided employment to 22 people.

Repair and Service Amenities Small Units

This category includes units repairing passenger vehicles, small and heavy transport vehicles. In the district upto end March 2006 there were 544 units. The capital investment is ₹783.6 lakhs. They have provided employment to 2006 people.

Other Services and Other Products

This category includes units like photo copying machines (xerox), STD booths, Beauty parlours, labs, cable networks, studio, coir manufacturing, lime, spray painting, sofa cushion, scented supari, etc. In the district, upto the end of March 2006 there were 964 units. The capital investment is ₹2708.06 lakhs. They have provided employment to 5752 people.

Cashewnut Industry

The cashewnut industry stands out prominently for creation of employment, earning foreign exchange and job opportunities for women. This industry has 217 units. The capital investment is ₹1610.05. They have provided employment to 9832 people. This industry has made its name internationally and has become a prominent feature in the district. In India, cashew industries are found in Quilon of Kerala state and Dakshina Kannada and Udupi district of Karnataka. The total amount of cashew grown in the district is not sufficient for the production capacity of the manufacturing units, therefore raw cashewnuts are imported from Africa.

There are three types of raw cashewnuts that are used: 1) Good quality, uniform sized and suitable for oil production. These are obtained locally. 2) There is great demand for small broken cashewnuts from Africa. The oil content is low in this variety. About 4.5 kg to 6.35 kg of oil is obtained from 76 kgs of cashewnuts. 3) The cashewnuts brought from Uttara Kannada District is not of good quality as compared to locally available cashewnuts.

Cashewnut has a brownish green coloured outer layer, a thick middle layer and white kernel within. The kernel has a thin outer covering which is light brown in colour. With the help of a machine, the thick outer layer is broken and removed, next, the inner kernel should be separated from the brown layer. Separating the inner part(kernel) from the brown layer involves very delicate work, and this job is assigned to women workers. The work is a very delicate and

requires patience hence as a special case only women labourers are employed. As per weight, colour and size, 20 different varieties are identified and each cashewnut is considered, to maintain quality during production. While considering quality, attention is paid that the inner part of nut, the kernel should not break, it should remain as a whole. Except in India, in other parts of the world we seldom find nuts in whole form, they are generally found in broken form. Qualitywise Indian cashewnuts are very prominent. After separating the kernel, it is dried to remove any water content present. Some people may apply salt and chilly to the dried nut as per the demand and taste of customers. The cashewnuts are then packed in aluminium containers and exported. Cashew and its products are exported to other countries through the port at Mangalore.

Cashewnuts produced in the district are exported to America, Gulf countries, England, Russia, Japan, Australia and other countries. The foreign exchange received from this has played a very prominent role in the development of the district. As women workers are available in adequate numbers, cashew industries are seen more in Karkala and Kundapura than in Udupi.

The outer layer which is separated from the inner kernel is also very useful. Oil is extracted from this. Now-a-days even cashew oil is in great demand. Cashew oil is used in the preparation of Gum, Paint, Insulating Varnish, Water proofing, Brake liner etc. cashewnut oil is in demand in foreign countries also. In India there is great demand for Cashew oil from industrial Centres like Bombay, Ahmedabad, Faridabad, Calcutta, Coimbatore etc.,.

Cashew is a seasonal crop. Hence it is essential that the storage of raw materials is necessary for the annual working of the industries. Locally, cashew is in short supply as per the demands of the local industries. Therefore, there is a demand for maintaining a continuous supply of cashewnuts and raw materials throughout the year. Research regarding cashewnuts is undertaken in the agricultural research centres of Ullal, Puttur, Vitla of Dakshina Kannada District, Kasargod of Kerala State.

The Main Cashew Industries of the District

Adarsh Cashew Industries, Sastana(Kundapur); Bola Raghavendra Kamat and sons, Karkala; Bolkar Cashews, Ajekar(Karkala); Karla Cashews, Karkala; Chittar Cashews, Vandar Mandarthi (Kundapura);

Palcon Cashews, Kolalagiri (Udupi); Gajanana Cashews, Kucchoor, Hebri(Karkala); Gajanana Cashews, Siddapur (Kundapur); Gayathri Cashews, Attur(Karkala); Greenland Industries, Kukkandoor (Karkala); Gulwadi Cashews, Mavinakatte (Kundapur); GuruGanesh Industries, Perdoor (Udupi); Kamakshi Exports, Karkala; Karkala Cashew Products, Karkala; Kotitheertha Cashew Industries, Tekkatte (Kundapur), Lakshmi Cashew Industries, Hebri (Karkala); Mahalasa Exports, Hiriadka (Udupi); Mahalakshmi Cashew Industries, Shivapura, Hebri(Karkala); Mookambika Cashew Industries, Taggarase (Kundapur); Kamath Cashew Industries, Sanoor (Karkala); Sanoor Cashew Industries, Sanoor (Karkala); Navaneet Cashews, Perdoor (Udupi); New Damodar Cashew Industries, Kukkandooru(Karkala); New Ramanath Cashew Industries, Mudradi (Karkala); Pragati Cashews Kucchoor, Hebri(Karkala); Prithvi Cashews, Bolambail, Kalthodu (Kundapur), R.K. Cashews, Mudubelle (Udupi); Radhakrishna Cashew Industries, Kemmannu (Udupi); Santosh Cashews, Nitte (Karkala); Saptami Cashew Industries, Senapuram (Kundapur); Shri Deviprasad Cashew Industries, Kudrubeedu (Kundapur); South India Cashews, Kumbale(Kundapur); Durgaprasad Cashew Industries, Januvarukatte (Udupi); Krishni Karmikara Gramodaya, Shivapura (Karkala); Vinayaka Cashew Industries, Hebri (Karkala), Shrinivasa Cashew Industries, Belve (Kundapur); Vijayalakshmi Cashew Industries, Shanakarnarayana, (Kundapur) and others. In addition to these cashew industries there are about 180 small scale cashew industries in the district.

Beedi Industry

Beedi Industry is a prominent contributor to Udupi District development. Though there is no elaborate information about the capital invested, provision of employment and annual turnover of this industry, there are approximately 1,90,000 (one lakh ninety thousand) labourers working in Beedi Industries. Most of them work on contract basis. The main manufacturers of Beedi in the district are 30 number Beedi, Prakash Beedi, Shenoy Beedi, Pailwan Beedi, Desai Beedi and others. Direct employees in the Beedi industries are rare. Most of them work on contract basis.

Upto the first half of 20th century, this industry was an organized sector. But after 1946, due to the conflict between employers and workers, the industry evolved into a contract-based industry. Even then, on account of the pressure exerted by the Labour Unions, the

labourers were lucky to get many welfare measures. Most of the contract labourers are women. According to one estimate, of the total contract based workforce, 96% are women workers, aged between eighteen and forty years.

The welfare measures undertaken to encourage the Beedi Industry were inadequate which had an adverse effect on its employees. When compared to other states, the wages provided to the labourers in Karnataka is less, due to this reason, the industry started outsourcing the work from other states which was a loss to the local labourers. The cost of production increases in the case of production on a large scale as the industry has to provide all facilities to its workers as per the regulations. The cost of production is lesser in the smaller units which receive government grants and provide a stiff competition to larger units. As such, the Beedi Industry is affected. Competition from Cigarette Companies and public opinion against smoking are some of the reasons which have adversely affected Beedi Industries. For the past 5-6 years the amount of work available to the workers has declined by 60%. As the unity among the beedi workers increased, their benefits also proportionately increased but due to the transition of the beedi industry, the profile of the labour force changed.

The Central Government has identified Beedi producers whose annual production of Beedi is 20 lakhs or less, as small scale producers and are exempted from customs tax. Presently, there are several Beedi producing units without trade marks. The work is undertaken through contractors or they provide work to the labourers directly, and sell the product at a low cost of production. They have occupied a place in the market, by providing a large commission to the sellers.

Tile Industry

Tile industry is one of the major Industries of the coastal district which was started in earlier days. Even now, it is popularly known as "*Mangalore Tiles*". It is not surprising if we mention that the tiles and smoke towers of tile factories produced in these units are responsible for introducing modern industries to the people of this district.

Before Independence, with an intention of providing alternate employment to local converts, the Bassel Mission of Germany, in the year 1865 started production of "*Mangalore Tiles*" in the form of an industry. In olden days, '*Nadahanchu*' or the local tiles were used in this region. These tiles were traditionally prepared by potters. The clay mud required for the manufacture of tiles, is available in interior places near rivers where the water flow is slow and where the river meets the sea. Most of the tile factories are found in these regions. As the cost of transportation of mud to distant places is very high, the industry developed near the region where clay was available in plenty. Tile factories need large amounts of firewood. After mixing the clay in the proper manner, it is placed in the mould and burnt at an optimum temperature. Grinding the mud, pressing the tiles and then carrying it on a conveyor, all these activities are carried out mechanically. In most of the tile factories bricks and flower pots are also produced. In Udupi district there are 21 tile factories. The capital investment is ₹720 lakhs. They have provided employment to 160 people.

Rice Mills

Paddy is the main food crop of Udupi district. Paddy is grown in 62,103 hectares of land. Pounding paddy and separating rice from the husk is the traditional method of rice production. In olden days, paddy pounding was done by women and children in their houses. To overcome the exhaustion of manual labour, there was a cultural tradition of people murmuring songs.

In recent years, as people gave more importance to intellectually challenging jobs rather than manually pounding rice, rice mills started appearing on the scene. In the initial stages, rice mills used paddy grown in the field or paddy purchased from the wholesale market outside the district. Most of these industries were dependent on the paddy brought from outside for their production.

During the 70's as there was a scarcity of labourers for rice production or for pounding the paddy, an alternate method had to be devised. The result was rice production using a small machine called the 'Huller'. Generally these hullers are connected to water pumps to dehusk the rice. The concept of rice production through the huller mill can be considered as an alternate economical activity, it cannot be considered as a unit of Small Scale Industry. Hence the capital

investment in this unit or the provision of employment cannot be recorded. In the district, upto end March 2006, there were 227 rice mills. The capital investment is ₹1631.13 lakhs. They have provided employment to 1658 people.

FISHERIES

Fisheries in Udupi district is the main source of income and is famously known for the '*Fish Revolution*' or the '*Blue Revolution*'. Fish is one of the main sources of vitamin 'A' and 'B' which are available in large quantities. The fish varieties of the district are, *Bangde*, *Bhootai*, *Anjal*, *Kedar*, *Manji*, *Balliyar*, *Tate*, *Kate*, *Ademeenu*, *Goorimeenu*, prawn etc. These fish varieties are available in plenty and have played an important role in the economic development of the district.

Mackerel (Bhangade) fish is available in large quantities and is known as the "*National Fish*". Prawns are known to be the gold mine of the sea. From the district, prawns are exported to Japan and other countries. There is a fish exporting unit in Malpe. Though fishing started about two centuries ago in the district, modern mechanized system of fishing was initiated recently, *i.e.* towards the end of the 1950's. At that time, only country boats were used. *Rowing boats*, *Rampa boats* and *boats* built with wooden planks were prominent among them.

Till the second Five Year Plan, fisheries had not been modernised in the undivided district of Dakshina Kannada as it was under the Madras presidency during the First Five Year Plan, only fishery Co-operative Societies were encouraged. Hence, for the sake of Dakshina Kannada district's fisheries, the Second Five Year Plan can be considered as First Five Year Plan. In 1958, the fisheries training centre was started in Mangalore. During the Second Five Year Plan, 95 people were trained in maintenance and use of mechanized boats. With the objective of conducting research in Fish Oil, Fish processing and maintaining fish properties, '*Fishing Technological Research Laboratory*' was started in 1960, in Mangalore. Diploma training in the preparation of fish byproducts like fish sausage, havel, canning of fishes, fish processing using modern technology, the 'Sea fish processing training centre' was established in Mangalore with Indian and Japanese collaboration in 1963. For the first time in India, in 1969, University of Agricultural Sciences, Bangalore, started Fisheries Science education by opening a graduate and post graduate college

in Mangalore. For the first time in 1970 a chain link called '*cold chain*' was started through Fisheries Development Corporation. Fishes caught in the ocean are brought to Mangalore and transported to 20 different parts of the Karnataka through cold chain links. With these arrangements fresh and quality fishes are made available in Bangalore, Mysore, Coorg, and Hubli. As per UNO's Sea Regulation declaration, Karnataka State declared the ocean area as ``Special Economic Zone'' (SEZ) in 1977.

The contribution of fisheries to the district income is ₹6403 lakh. Fishing is not only an economic activity, it is also an inseparable part of the social and cultural life of people belonging to this region. It has a great influence on the people's life, hence people who are dependent on the fish industry protest against the influence of other industries on the fish industry. The fishermen who catch fishes from the deep sea by spreading nets and travelling by different kinds of boats belong to *Mogaveera* Community. The people who collect these fishes after the catch and sell them in the market are from other communities. There are many people who are involved in this business. They follow market regulations and invest capital amount in it. Hence there is a stiff competition between the workers and businessmen, for more profit. Some times this competition gets projected as protests due to social, political and cultural reasons. In the initial stages, fishing activity was based on co-operative philosophy. It was organized around community wellbeing. But later on, during 1950's due to modernization, this organized form of fishing activity became an industry. This has set a trend where the main community of fish producers are transformed into labour class. The exchange based, capital centered fishing activity has a great influence on economic, political and cultural life of fishermen. Therefore, any changes that occur in the fisheries sector will influence the *Mogaveera* Community, directly or indirectly, as well as other strata of people who are dependent on fisheries.

Another economic activity that is gaining importance these days is prawn or shrimp or *Chatle* culture. Near the seashore in the lagoons where there is backwater inflow, breeding and larval rearing of prawn, popularly known as prawn culture is undertaken. There is a huge demand for prawns from other parts of the country and from abroad. Hence prawn culture has become a prominent economic activity of the district. There are four types of prawn cultivation. They are: 1) Traditional method; 2) Improved or elaborate

method; 3) Intensive- Method; 4) More- Intensive method.

1. **Traditional method:** During high tides, along with the seawater current, fishes, prawns and other aquatic creatures are swept into the lagoons along with the backwaters. During low tides when water gushes out through the lagoons, the fishes are retained in one area, allowing them to grow held back by nets, by the fishermen. Then they are harvested. This is the traditional method of Shrimp/Prawn culture.

2. **Improved method:** This is an improved version of the traditional method where aquaculture is done on a commercial basis. In vast areas, fast growing larvae (young ones) of prawns are (naturally available or procured from larval production centre) grown in low stocking density. The alkalinity of water during high and low tides determines the rate of production. Normally, around 2-3 tonnes of prawn production per hectare can be achieved by this method.

3. **Intensive Method:** In order to get a better yield, this improved version is applied in prawn culture. Concrete ponds normally measuring 0.3 to 0.1 hectare are constructed scientifically. From the larvae producing centre, fast growing larvae are procured and they are sown at the rate of ten lakhs per hectare. Since there is a high density of larvae, everyday around 300% more food has to be provided. Adequate number of aerators are installed to increase the proportion of oxygen, by this method around 20 to 30 tonnes of prawns per hectare, per year can be produced. There is a great demand in India and abroad for *Tiger* and *Indira* variety of prawns produced in the district. For intensive and semi intensive method of prawn cultivation, large investment is required. It is found that new entrants not belonging to the district are involved in prawn culture in Udupi and Kundapur region.

4. **More Intensive method:** In this method of prawn culture, ponds are constructed in an area of 0.2 to 0.5 hectare land. Fast growing prawn larvae are then stocked. Normally, around 1-4 lakhs of prawns can be produced per hectare. In order to increase production, the measures to be undertaken are:

- Everyday 15 to 20% of water should be changed.
- In order to increase the proportion of oxygen in the water, adequate number of aerators have to be installed.

- Supplementary food is provided to the prawns,
- to maintain the quality of the water proper methods are to be followed.

For more information refer Table 5.12 and Table 5.13

Table: 5.12: Fishery Production and Value in the District

Taluk	Fish Catch (in tonnes)			Value of Fish catch (in ₹ lakhs)			Cold storages	Ice plants
	Marine fishes	Inland water fishes	Total	Marine fishes	Inland water fishes	Total		
Kundapura	26237.29	480.76	26718.05	7430.28	192.30	7622.58	1	14
Karkala	-	1275.49	1275.49	-	510.20	510.20	-	-
Udupi	32768.10	107.93	32876.03	50004.56	43.17	5047.73	8	43
Total	59005.399	1864.18	60869.57	12434.84	745.67	13180.51	9	57

Source: District at a Glance review 2004-05

**Table 5.13: Details of Cold Storage and Mechanized boats
(Upto end of March 2005)**

Taluk	Cold storages and Frozen storages		Fishing nets	Mechanized fishing boats			Total	Non Mechanized boats
	Number	Capacity		Parsiene (K.D.C.)	Trawlers (K.D.T.)	Other (Co.B.M operated)		
Kundapura	1	20	4177	35	210	1365	1610	742
Karkala	-	1	-	-	-	-	-	-
Udupi	12	1761	5146	107	780	936	1823	1316
Total	13	1781	9323	142	990	2301	3433	2058

Source: District at a Glance 2004-05

Fisheries College, Mangalore

The Fisheries College at Ekkur, Mangalore is a technical college. It is the first of its kind in India. In 1963, *Marine Product Processing Training Centre (M.P.P.T., Mangalore)* was established with Indian and Japanese collaboration. In 1969, this centre was converted into a Fisheries College. The objectives of this college are to produce graduates in the science of fisheries, to spread the benefits of research conducted by Scientists and to assist the fishermen. Earlier this college was under the Agricultural University of Bangalore. In 2004-05 it came under the University of Animal Husbandry, Veterinary and Fisheries Sciences, Bidar. Graduate, Post Graduate, and Doctoral Degree (Ph.D) students study here.

Fisheries have contributed to the development of industries in the district. Fish meal and Fish oil industries have been set up. This industry has provided employment to hundreds of people. There are units engaged in fish packing, canning and exporting them to countries like Jordan, Saudi, Durban, Japan, China, and U.S.A. and Arab countries. The foreign exchange earned has contributed to the progress of the district.

There are 40 fishermen Co-operative Societies in the district, of these, 29 fishermen Co-operative societies and 11 F.W.C.S. are included. The members of these societies are 1820 Scheduled castes, 07 Scheduled tribes and 41,920 others, (Totally 43,747). For more information please see Chapter 8.

Fish Drought, Prohibition of Fishing and Daily Needs

There is a decline in the availability of fishes year by year, though the *Central Marine Fisheries Research Institute* claims that there is no decline in the fish yield. A section of the fishermen have expressed fear that fish drought may arise due to destruction of fish eggs and larvae due to deep water fishing by foreign vessels. The following measures can be adopted to overcome this problem:

1. Fishing is to be prohibited throughout the west coast every year before the commencement of the south-west rains. The prohibition period should be same and strictly enforced by all the states along the coastal line. Exemption may be given to traditional fishing during this prohibition period.

2. By seeking co-operation from the Fisheries Department, Researchers and locals, the breeding ground should be identified and fishermen may be persuaded not to indulge in fishing activity in such areas.

3. It should be ensured that prominence is given to local communities who carry out fishing in a small scale and depend on fisheries alone for their livelihood. As prescribed in Section 6.18 of World Agricultural and Food Organisation, this assurance is to be implemented by formulating proper rules.

4. The methods and apparatus followed in traditional fishing have importance in view of preserving the diversity of life. Encouragement is to be given for continuation of this method. If it is inevitable, the

people who follow traditional fishing must be provided with alternate arrangement for their livelihood.

5. The import of fish and fish products from foreign countries without licence should be prohibited, otherwise there is a danger of losing valuable markets for the locally available fish products.

6. The anomalies regarding fisheries in the Central and State Policies are to be rectified, based on examples of large fishing vessels with central licence undertaking deep sea fishing, that violate the rules and regulations of the state government.

The way, in which the industry of fisheries is functioning at the state and national level, we observe that there is high commercialisation and fish drought. This situation is not conducive to the wellbeing of traditional fishermen. The situation in the district is not far from it. People who are dependent on fishing should be given information and trained in alternate activities, for which the Tourism, Co-operative Sector, Government and Fishing Unions should work together.

POTTERY

The practice of using earthen pots by all types of people has been in vogue for a long time, as time passed by, various industries started flourishing and traditional products were neglected. Earthen pots which people of this region used in their daily life, have started to vanish.

Even now in Udupi district, there are about 500 potters who are very active. They manufacture pots and other products from mud. They earn their livelihood by selling these products. In 1958, the potters of the district together formed *Potters Household Industrial Co-operative Society Ltd.* The main objective of this organization is to help the people who are dependent on home industry like pottery, in production and sale of items, and make available other privileges provided by government schemes.

The members of the organization manufacture earthen pots, flower pots, water containers, and other day to day use utensils mostly with the co-operation of their family members. These products are sold in weekly, daily markets, village fairs, and through the co-operative society. Since aluminium, steel, hindalium vessels are available at low

prices people have lost interest in earthen utensils. It is a sad fact that pottery is vanishing due to increase in the cost of production and decline in demand. This home industry which has a traditional background can be improved by undertaking steps for revival. At present 196 families are engaged in this occupation.

FLORI-CULTURE

Jasmine: Jasmine was grown for the first time in Shankarapura of Udupi and due to its special fragrance has great economical value. There is a great demand from the people of this district who are settled in foreign countries. Jasmine is used in auspicious occasions like marriage, thread(upanayana) ceremony, pujas, and car festivals etc. This is a profitable agriculture based economic activity.

It is said that a priest who arrived at the Shankarapura Church, 70 years ago, was responsible for starting jasmine cultivation in this region. The Christians, who owned land in quarter of an acre to one acre, were small land holding farmers of Shankarapura, and were struggling to meet both ends. At that time jasmine was grown in small quantities at Bhatkal, Kundapur and Gangolli. The parish priest had the foresight that jasmine cultivation could be improved in this region, due to hot weather and bright sun, red soil and available water resources. There was no shortage for human resource as women and children from the families could engage themselves in cultivation activity. Jasmine cultivation was started considering the living conditions of the population, natural resources and human resources. An adequate market was created. Demand for jasmine from neighbouring Udupi city, southern Mulki, Kateel and Mangalore, and eastern Karkala, etc. for marriages and rituals like pujas increased. The cultivation improved stage by stage and spread to nearby areas like Belle, Padubidre, Ermal, Shirva etc. Nowadays jasmine is grown in small quantities in the rural areas of Karkala and Kundapura taluks. However, Shankarpur remains the capital of jasmine cultivation in undivided South Kanara. Though many people have left this place, the jasmine flower has followed them. The demand for jasmine grew as aviation started in Bajpe. There is a heavy demand from Mumbai for this flower as we find a large number of people from the district have migrated and settled in Mumbai. The main reason behind this are the traditional rituals, festivals in vogue, *Nema*, utsavas and public functions. Many people from this district are employed in gulf countries. Hence jasmine is exported to this place also. Wherever

people from this place have settled, the demand for jasmine will be there. Almost 95% of families in Shankarapur undertake jasmine cultivation.

In recent times, self help groups, especially members of Shri Kshetra Dharmasthala Rural Development Project have started cultivation of jasmine in Karkala, Beltangadi and Mangalore taluks. It is a common belief that as jasmine is an inseparable part of rituals which is a part of the culture of this region, the demand for it will grow. The details of Jasmine production in the district during 2000-02 and 2005-06 is given in table 5.14

Table 5.14: Details of Taluk-wise Jasmine cultivation

Taluk	Area in hectares	Production	Yield	Value ₹ in lakhs
2000-01				
Udupi	128	896	7	89.10
Kundapura	41	287	7	14.35
Karkala	64	448	7	672.0
Total	23.3	16.31	21	672.0
2005-06				
Udupi	140.8	985.6	82	98
Kundapura	45.1	315.7	82	15.75
Karkala	70.4	492.8	82	739.2
Total	256.3	1794	23.1	739.2

Source: District Horticulture Department, Udupi

Vanilla: Recently, vanilla has become one of the prominent commercial crops, attracting several farmers. Vanilla crop requires lot of shade and care. This can be grown independently or with other crops. Vines of vanilla costing about ₹200-250 per meter are bought and grown spreading over other plants like Glari Sidia, Arecanut, or on stone pillars. Extra care should be taken while growing this plant. Initially, approximately 1½ kgs of natural manure, poultry manure or vermicompost are fed to these plants. Daily a minimum of quarter litre of water is sprayed. After six months of growth, neem cake and peanut cakes are mixed to form manure. When this mixture ferments and after the gas is released it should be fed to the plant. It is better, if aerial spraying of water is done. Vanilla plant requires both shade and sunshine. When the plant attains a height of 6 meters, spraying of water and fertilizer must be stopped. After growing for 2-3 years,

when the plant looks withered, then the buds appear. As soon as the bud appears watering is resumed. Aerial spraying of water is also done. A month later, flowers bloom. Pollination from flower to flower should be carried out manually. Training is required for this kind of pollination. If pollination is done properly the pods appear after 9-10 months, and is ready for harvest. Market rate is determined on the quality of the pods. In earlier days, during the initial stages of Vanilla cultivation, the rate per kilo was ₹25,000- ₹30,000. But as more and more farmers started vanilla cultivation, the price crashed. Vanilla will continue as commercial and profitable crop. But it is advisable to grow vanilla along with other crops. For details see Table 5.15

Table 5.15: Details of Vanilla crop cultivation in the district

Taluk	No. of beneficiaries	Area (in acres)	Amount of Tender beans (per kg)	Rate for Tender beans (per kg) (in ₹)	Processed Vanilla
2000-2001					
Udupi	50	50.00	700	350.00	5000.00
Kundapur	40	30.00	400	350.00	5000.00
Karkala	30	20.00	300	350.00	5000.00
Total	120	100.00	1400	-	-
2001-2002					
Udupi	85	70.00	1544	850.00	9000.00
Kundapur	84	60.00	1320	850.00	9000.00
Karkala	60	40.00	880	850.00	9000.00
Total	229	170.00	3744	-	-
2002-2003					
Udupi	95	90.00	2950	1110.00	10,000.00
Kundapur	110	95.00	3040	1110.00	10,000.00
Karkala	90	120.00	3840	1110.00	10,000.00
Total	295	305.00	9830	-	-

Source: District Horticulture Department, Udupi

Note: from last 3 years the rate for tender beans was very less, hence the vanilla wine was used for planting without allowing it to flower. Hence the yield is less.

APICULTURE

Agriculturists, small farmers, and agricultural labourers have undertaken honey Bee keeping as a sub-occupation. Due to beneficiary measures provided by the government, it has provided additional income to many people, thus improving their financial and social status. Khadi and Village Industry Corporation, Zilla Panchayat, District Industrial Centres have encouraged apiculture.

About 3500 families are engaged in bee keeping in Udupi district. During 2006-07, 25,000 kgs of honey has been sold through the Co-operative Society. A branch of Honey Producer's Society is located in Udupi. These societies provide necessary information and assistance towards facilities available for bee keepers. According to government policy, out of three taluks, 50 people are selected from each taluk for training. 150 people were trained during 2006-07 and they have been provided with honeybee boxes at concessional rates.

HANDLOOMS

The demand for clothing in the district is largely met by the Handloom Sector. However due to the latest developments in modernization, labour cost has increased significantly, traditional activities no more profitable. Due to this reason, it is natural for youngsters to get attracted towards more lucrative occupations. Hence the number of handlooms in the district has decreased considerably. A large number of looms which were functioning in Basrur, Brahmavar, Udupi, Shivalli, Malpe, Perdur etc are lying idle now. Thus, a traditional occupation, which became nonviable has reached the stage of extinction.

The community called Padmasaali or Shettigar were involved in the handloom industry, since a long time. In places like Brahmavara (Salikere), Basrur, Malpe, Shivalli, Perdur, hundreds of handlooms provided clothing to the local people. The entire family were involved in weaving activities. It was a productive activity and had cultural dimensions also. Children, women and men engaged themselves in different works. It is observed that in recent years that the youth, after education enrol in modern occupations which fetch them a better income. Therefore, the number of people choosing this occupation has declined. These days, people above the age of 40-50 years are involved in this occupation, This kind of labour has not been

remunerative financially. A handloom weaver earns ₹80-90/- for weaving a single saree from morning to evening, whereas an ordinary labourer earns ₹125-150 per day, for work that is comparatively easier than weaving. Under these circumstances, a number of families have migrated and found alternate ways to earn their livelihood. The youth of the weaving community have done well through modern education. However, excluding the cost of cotton yarn purchase, dyeing, weaving etc, a 40 threadcount saree fetches ₹one hundred and fifty, whereas a 60 threadcount saree fetches ₹one hundred and eighty, as compared to the cost of production of a cotton saree is much lesser in a modern mill and as such the demand for hand woven sarees have decreased. It is easier to conceptualise and execute various saree designs in modern mills, whereas a large capital is required to change the pattern in handlooms. The increase in capital will add to the cost of production. Therefore, there are limitations for changing the designs. Further, new designs do not last longer than 1-1½ years. Though changes in designs are inevitable, handlooms are not in a position to keep pace with it. Presently, women and young girls prefer to wear trousers, shirts, salwar kameej, and nightgowns at home, hence it is natural that the demands for the saree has decreased. Artisans working in handlooms have become members of Co-operative societies and they carry out all their business transaction through this organisation. The government provides 10 to 20% rebate during festival days, and 4% for the remaining period of the year, which is very short of expectations. Market based liberal economic system has further hastened the decline of the weaving industry. Government, costume designers and professionals must pay attention to rejuvenating and reviving this traditional occupation by initiating proactive methods in handloom weaving.

Rural Development and Self-employment training Institute (RUDSET)

Shri Darmashtala Manjunatheshwara Education Trust, Canara Bank, Syndicate Bank, Sard Foundation and C.B.C.R.D.C. have jointly promoted a unique training centre which has 20 branches all over the country, with seven branches in Karnataka. Rudset was started in Shivalli near Manipal in 1988 and was later shifted to Herur near Brahmavara in 2004.

Educational qualification is not essential to receive training in this institution. The trainees imbibe useful skills as the training is practical and not theoretical. Training is imparted in personality

development, self confidence, business acumen, accountancy and preparation of project reports.

The branches of this institution impart training to candidates based on local needs and requirements. The advisory committee comprising of officers from the sponsoring institutions, government, stalwarts of society, reviews the method of functioning and progress achieved by the institution. Instructions and suggestions are provided by them from time to time. The details of people trained during the year 2006-07 are given below:

The details of number of persons trained during 2006-07

Sl.No.	Details of Training	Programmes	Candidates attended (in numbers)
1	Self-employment	30	924
2	Rural development	01	90
3	Entrepreneurship development	15	562
4	Skill development	01	26
5	Human resource development	05	183
	Total	52	1,785
Sl.No.	Details of people who established industry		Numbers
1	With bank loan		282
2	Without bank loan		160
	Total		442

Development of Entrepreneurship

Several institutions of the district are engaged in providing guidance and training for the development of Entrepreneurship. Several unemployed people have received training in these institutions, and have started tiny and small scale industries thereby contributing to the development of the district.

The Rudset founded jointly by Shri Dharmashtala Manjunatheshwara Education Trust, Canara Bank and Syndicate Bank are functioning at Herur near Brahmavara. There are 20 such training centres all over the country, out of which seven are located in Karnataka state. The programmes conducted by this chain of institutions in the district are listed hereunder:

- Entrepreneurship Development Training
- Skill development training

- Industrial Development training
- Technology transfer training
- Human resource development training
- Trainers training programmes
- Training regarding relationship between financial institutions and non Government institutions.
- Rudset *Bazar*

Syndicate Rural Entrepreneurship Development Institute

This institution is located in Manipal and provides training and guidance to youth for self-employment and to setup small scale industries. The needed training provided to beneficiaries under different government schemes helps people from weaker sections as well as those who follow it as a vocation. It also provides information and guidance regarding the facilities available from various departments, capital available from financial institutions and the training needed for starting self employment enterprises, provided under State and Central Governments Projects.

Approximately, 125 people were trained during the year 2006-07 of which 104 were women. 14,568 people have been trained in 282 batches from the date of incorporation of this institution, of which 9045 were women. It is noteworthy that the majority of the people trained in this institution are women.

Software Technology Park of India (STPI)

With a view of providing basic facilities to Information Technology Sector Industries, a technopark has been established in Manipal. After the establishment of this centre, which is under the control of Central Communication Ministry, information technology based industries have received support from this initiative. Five such industries are already functioning now. There are projects on the anvil to help increase the capacity of the centre, so that the benefits can be extended to educational institutions and other areas of occupation.

POULTRY INDUSTRY

Today, poultry farming has developed into a large industry in the district. It has been successful in Udupi and Kundapur taluks, whereas Karkala taluk is in the developing stage.

Though poultry farming is gaining more importance in the district, the production capacity is falling short of the demand. Therefore, meat and eggs are being supplied from areas outside the district. Training in the development of hybrid species, good maintenance, and accurate information regarding medical treatment to prohibit diseases that may attack poultry are available now. Hence this business can become profitable. There are two kinds of poultry farming. They are: 1. Broiler (meat) poultry farming 2. Egg laying(layers) poultry farming.

Poultry farming is no longer an industry that depends upon local resources and is no more controlled by poultry owners as in earlier days. The owner of the stock looks after the chicken during their growing stage on a contract basis and supplies them to the big companies. The responsibility of supplying baby chicks, food and medicines etc lies in the hands of Private Sector Company. Considering the intensive method of farming undertaken at the poultry farm, it is observed that this industry requires a large capital investment.

The private sector company supplies the young chicks from their stock to the poultry farmers. These stocks (hens) are called as 'grand parents', which are obtained from multinational companies. After a thorough study of various poultry available around the world, hybrid species of 'grand parents ' are developed giving importance to factors like good health and meat, thereafter they are supplied to poultry farm. After the chickens grow to their optimum weight, with proper food and medicine, the supplier company will buy them back. After collecting the meat from the chicken they are kept in the cold storage and sold thereafter. The farmer who looks after these chickens will get a pre-decided rate per chicken. This form of contract based labour is called as Integration. In the district the poultry farming is based on Integration method. Around 600 people are actively engaged in Poultry farming. However their number is decreasing day by day. Only 60 percent of the demand is fulfilled by the district, the rest 40 percent of the meat is supplied from outside the district. Therefore there is good opportunity to develop this as an industry. As per district live census of 2002, the total number of poultry was 7,48,699. Highest number was found in Udupi taluk, i.e., 3,43,127. Karkala has lowest number, 1,16,753 and Kundapur has 2,88,819. This fact is noteworthy.

DAIRY

Dairy industry is considered as heart beat of the farmers. It has enhanced the economic and social status of the people of this district through the 'Milk Revolution' or 'White Revolution' which has increased their standard of living. The milk is pasteurised and the fat content is brought to an optimum level, then packed and sold in polythene bags. Byproducts of milk like butter, cheese, ghee, curd, spicy buttermilk, packed in polythene bags are also sold. Under the brand name 'Good Life' milk with a shelf life of 45 days is being marketed. All these products are sold in the district under the brand name 'Nandini', by Dakshina Kannada Co-operative Milk Producers Union (Ltd.) which is member organization of Karnataka State Milk Producers Federation. The district's Milk Producers Union was registered in the year 1986, and since the last thirty years this organization has achieved great progress. In Udupi district by end June 2006, there were 242 Milk Producer's Co-operative Societies. The total members of these organizations were 40,000 of which 16,500 are active members who rear cattle and sell milk to the union, everyday with a collection of 79,800 liters of milk, 85 percent of the district's demand is fulfilled by Milk Producers' society. In 2003-04 the number of Milk Producers society was 208, in 2004-05 it was 240, and in 2005-06 it was 261 with a membership of 52,000, 60,000 and 67,860 respectively. The total amount of milk collection (per day in liters) was 69,996, 70,087 and 72,835 respectively. For cattle reared by the members, veterinary facilities are provided. The members rear hybrid varieties like Jersey, Holstein Friesian, and Malnad, short and local species. These cows need sustained medical attention to remain healthy and retain a constant milk yield. Upto end March 2005, there were seven Veterinary hospitals, 28 Veterinary dispensaries, 46 Primary Veterinary Centres, five Artificial Insemination centres, three mobile dispensaries. A total number of 1,42,089 livestock have been treated and 47,769 live stock artificially inseminated. Cattle feed is supplied to the members of the union who own cattle. The union assists in growing good quality fodder. The quality of the purchased milk is maintained in milk cold storage centres in Basrur, Nadugudde, Madarangadi, and Uliyaragoli. Manufacturing and selling milk products such as butter, ghee, peda, Mysorepak, curd, lassi, paneer, ice cream mix etc adds to the benefits of maximum production. The byproducts of milk like curd, butter milk, peda etc are not processed in Manipal unit of Udupi district, but processed at Kulashekar, the main unit of Dakshina Kannada. The cold storage and packaging centre at Manipal

has the potential to increase its capacity. Presently it has a capacity of 50,000 liters per day. The details of milk products of the district are given in table 5.16.

Table 5.16: Details of Milk products and its sale

Sl No	Details		Annual Sale (2005-2006)
1	Milk	(daily in liters)	45077.50
2	Butter Milk	(daily in liters)	229.50
3	Ghee	(in tones)	64715
4	Lassi	(daily in liters)	378.10
5	Khova	(in kgs)	423
6	Peda	(in tonnes)	5760
7	Mysorepak	(in tonnes)	4453
8	Butter	(in kgs)	5625
9	Badam Powder	(in kgs)	1442
10	Curd	(daily in liters)	378175
11	Flavoured Milk	(in liters)	17885
12	Milk Cream	(in kgs)	12666

Source: South Kanara Milk Producers Union Limited, Manipal division, Udupi

SERICULTURE

Sericulture is one of the agro based small scale household industries of the state. Historically, Tippu Sultan, the King of Mysore, brought silkworm eggs from his travels to China and established a silk worm rearing unit in the southern part of his state, thus encouraging this industry in Mysore State. His ambition was to make Mysore one of the world's silk producing centers. In 1914, 12 silkworm species were brought from Italy and developed here. In 1915, species from Mysore and Italy were crossbred and a hybrid was obtained. As a result, sericulture spread across Karnataka state even to the rural areas where the farmers have developed sericulture along with agriculture, thereby enhancing their economic status. In the coastal district of Udupi due to heavy rain and hot weather, though many people were engaged in sericulture, it has not flourished as per their expectations. In 1997-98 Udupi district was separated from Dakshina Kannada district, at that time mulberry crop was grown on 101.78 hectares of land and 18.868 tonnes of cocoons were produced. Six silk rearing centres, two technical service centres were present in the

district, 364 farmers were engaged in sericulture. But in 2005-06 the mulberry cultivation dropped to 48.60 hectares. The silk cocoon production was 165 tonnes with a value of ₹3.97 lakh. Three silk rearing centres, two technical service centres with 163 farmers were engaged in this occupation. The details of disease free eggs provided to the silk farmers and the yield obtained is given in table 5.17.

Table 5.17: Details of disease free silk eggs provided to the silk farmers and the yield obtained

Details		1997-98			2005-06		
		Udupi	Kundapur	Karkala	Udupi	Kundapur	Karkala
Eggs (in no's)	C.B.	5425	12650	15170	500	600	530
	B.V.	1350	3710	5048	925	150	2427
	Total	6755	16360	20218	1425	750	2957
Cocoon Production (In Metric tonnes)	C.B.	2.128	5.440	6.523	0.133	0.167	0.377
	B.V.	0.663	1.632	1.833	0.201	0.080	1.146
	Total	2.791	7.072	8.356	0.334	0.247	1.523
Average yield (in kgs)		41.60	43.00	41.20	40.60	33.00	45.78

KHADI AND VILLAGE INDUSTRIES

The revival of home and village industries in rural areas which flourished in olden days, will save the traditional methods of production and also make them competitive in the changed economic scenario. Though it is a difficult task, it is not impossible to achieve. If made possible, we can reduce the migration of job seekers from rural to urban areas. If job opportunities and production are increased amply in rural areas, the standard of living of people can be raised. The industries which use local resources should be encouraged. The Khadi and Village Industry, started by the government has been supportive towards agriculture based industries that lead to economic activities in rural areas. The industries established under Khadi and Village Industries in the district are edible oil production units, cereals and pulses processing units, pottery, leather industries, carpentry, sculpture, food products, tailoring, unrefined sugar(brown), floriculture, medicine manufacturing, apiculture, gobar gas plant, oil extraction from cashewnut, cane and bamboo, service oriented industries etc. The details of the industries sanctioned by Mass Banking Project, Money lending project, and the industry for which money was dispersed under Margin Money Plan are given in table 5.18 to Table 5.23.

Table 5.18: Details of Talukwise, Industrywise sanctioned units under Margin Money

Name of Industry	Number of Units			
	Udupi	Kundapura	Karkala	Total
Khadi Industry	0	01	0	01
Mineral Based Industries	93	54	22	169
Forest Based Industries	15	07	15	37
Agriculture Based Industry	165	70	31	266
Polymer and Chemical Industries	30	04	11	45
Engineering and Untraditional Power Industries	36	09	12	57
Textile Industries	13	07	15	35
Service Industries	15	0	02	17
TOTAL	367	152	108	827

Table 5.19

Name of Industry	Number of Units			
	Udupi	Kundapura	Karkala	Total
Mineral based industry				
Mineral based	3	0	0	3
Pottery	2	0	0	2
Forest based industry				
Collection of forest produces	2	1	0	3
Agriculture based				
Fruits processing	6	4	1	11
Cereals and Pulses processing	7	2	0	9
Rural oil	1	0	0	1
Polymer and chemical industry				
Polymer and chemical	1	0	0	1
Engineering and Non- traditional Power industries				
Carpentry and black smithy	1	0	1	2
Textile Industries				
Tailoring	0	1	0	1
Total	23	8	2	33

5.20: Details of Various Industries in the District

Name of Industry	Number of Units			
	Udupi	Kundapura	Karkala	Total
Agriculture based and Food industries	15	28	16	59
Engineering and non-traditional Power Industry	05	16	07	28
Mineral based industries	06	14	08	28
Forest based industries	01	03	01	05
Polymer and Chemical based industries	02	29	01	32
Service industries	39	39	17	135
Sale industries	01	0	-	01
Total	69	169	50	288

Table 5.21: Details of Loan sanctioned and released under grants

Name of Industry	Number of Units	Total
Mineral based industries	169	57.09
Forest based industries	40	43.39
Agriculture based and Food industries	263	189.71
Polymer and Chemical based industries	45	26.19
Engineering and non-traditional power industries	59	49.74
Textile Industries	35	5.95
Service industries	11	1.36
Sale malls	04	2.05
Khadi	01	0.02
TOTAL	627	376.60

Table 5.22: Details of Loan sanctioned and released under Mass Banking

Name of Industry	Number of Units	(₹ In lakhs)
		Financial Help/Loan
Fruit processing	11	124.56
Mineral based	03	15.95
Ayurvedic medicine Manufacturing	03	41.83
Polymer and Chemical based	01	16.90
Engineering and non-traditional power	02	8.87
Textile Industries	01	3.19
Rural oil	01	6.67
Pottery	02	12.88
P.C.P.I (Rice mill)	09	119.28
Total	33	350.13

Table 5.23: Details of taluk-wise industry-wise under margin money

Industry	Number of Units	Project Cost	Bank loan	Margin money
2001-2002				
Agriculture based and Food industry	01	10.00	9.00	2.50
Engineering and non-traditional power industries	01	10.00	9.50	3.00
TOTAL	02	20.00	18.50	5.50
2002-2003				
Mineral based industry	06	32.00	27.35	9.23
Forest based industry	01	10.00	9.50	3.00
Agriculture based and food industry	15	34.20	27.27	8.99
Polymer and Chemical based Industries	18	40.90	35.25	12.8
Engineering and non-traditional power Industries	13	62.87	40.27	13.63
Service industries	49	84.02	67.82	22.36
TOTAL	102	253.54	208.40	69.49
2003-2004				
Mineral based industries	01	10.60	10.00	2.58
Forest based industries	01	1.00	0.75	0.35
Agriculture based and food industry	12	68.01	48.41	17.34
Polymer and chemical based Industries	12	14.69	10.65	4.11
Engineering and Non-traditional power Industries	12	60.04	36.20	13.76
Service industries	40	56.63	44.16	16.19
TOTAL	78	200.07	150.17	64.32
2004-2005				
Agricultural based and food industry	11	106.44	71.44	22.61
Polymer and Chemical based industries	01	0.80	0.50	0.16
Service industries	23	75.58	65.02	18.05
Forest based industries	01	3.69	3.50	1.11
For Sale system	01	11.12	10.00	3.00
Engineering and non-traditional power Industries	04	28.00	26.00	7.77
Mineral based industries	04	52.72	36.29	10.13
TOTAL	45	278.35	212.74	62.83
2005-2006				
Agriculture based & food industry	20	143.99	120.64	33.55
Polymer & chemical based	03	36.62	29.55	6.65
Service industries	20	77.16	67.03	21.02
Engineering & non traditional power Industries	05	28.82	22.97	7.20
Mineral based industries	12	93.67	81.57	24.88
Forest based industries	01	22.98	16.50	3.00
TOTAL	61	401.24	338.20	98.30

Artisans

The traditional system, which was similar to the independent *gramaswarajya* system consisted of agriculture, business, production of items for daily use by utilising local resources and technology. As modern industries started gaining ground, the traditional ways of production slowly vanished from the scene. In spite of modernisation, there are people who lead their life according to old tradition without compromising on quality, using whatever traditional knowledge that is available, these artisans also contribute to the economic growth of this district. Among them we find people who have contacts with the big cities and knowledge about the modern way of production, people who have adapted their traditional knowledge to the changing trends in the production of goods etc. The details about the artisans of the district is given in table 5.24.

Table 5.24: Details of Taluk-wise Artisans in Dakhina Kannada district

Sl. No.	Profession	Udupi	Kundapura	Karkala	Total no. of families
1	Carpentry	1,271	1229	373	2,873
2	Gold smith	212	69	132	413
3	Black smith	87	100	49	236
4	Pottery	47	118	31	196
5	Sculpture	10	24	26	60
6	Wood carving	01	32	09	42
7	Quarry	28	85	45	158
8	Cement work	214	513	317	1,144
9	Mat weaving	44	66	31	141
10	Basket Making	266	266	114	646
11	Net weaving	18	-	-	18
12	Tailoring	47	46	05	98
13	Leather work	10	03	03	16
14	Lime stone burning	11	17	03	31
15	Weaving	52	14	06	72
16	Fiber preparation	11	45	30	86
17	Hair cutting	15	66	02	83
18	Cloth washing	23	27	38	88
19	Cane/bamboo work	05	07	43	55
20	Others	38	40	07	85

HOTEL INDUSTRY

Hotel industry was first started by Brahmins and Goud Saraswat Brahmins, later the Bunts and Billavas who migrated to Bombay and Madras cities joined the hotel industries there. If we clearly observe the birth and growth of the hotel industry in the district, supply of food became necessary along with the several needs of modernization and development, hotels can be considered as new system of supply to the market system. Wherever the people from Udupi or undivided Dakshina Kannada have settled, Udupi hotels have been established there. Udupi Brahmin hotels has become a worldwide phenomenon these days. The Raghavendra Bhavan near Udupi Krishna Mutt has the credit of introducing *masala dosa* to the world, for the first time.

Till the end of last century, hotels catered to the needs of outsiders/travellers who visited cities/towns, later, urbanization and industrialization led to hotels in important places. Udupi district can be considered as the birth place of the hotel industry. The entrepreneurs of this district have made a name for themselves in this industry. Initially, hotels gave importance to snacks and conducted their business in simple buildings provided with tables and benches, brass cups or glass were used, only in the cities cups and saucers were provided. Meals were served on a banana leaf.

After the second world war, hotel businesses started developing very fast, as there was scarcity of food articles, 'Ration system' was introduced all over the country. People experienced trouble in getting meals and eatables therefore it was quite natural that people started depending on hotels for their food. The business was conducted in cash deals hence the business expanded and became profitable. The concept of modern buildings, furniture, and utensils made its entry into the hotel industry. With this the attitude of the common man, which had a notion that 'eating in Hotels is not our culture' changed altogether. Dining at hotels became a symbol of modernity.

Udupi hotels started appearing wherever the people from the district had settled. In Dr T.M.A. Pai's felicitation book named 'Sudarshana', Shri I.V. Ram Rao in his article *Jilleyalli Hotel Udyama Beledu Banda Bage* (The development of hotel business in the district) has mentioned that, 'Kaanemar Venkappayya who visited King George's Delhi *darbar* experienced the need for a hotel to supply south

Indian cuisine. Hence he established India's first South Indian Restaurant in Bombay in 1912-13. It was named 'Welcome Hotel', later Venkata Rao's 'Komal Vilas', Hebbar's 'Modern Hindu Hotel' and Restaurants were established. Ram Nayak is the most prominent person who started Dakshina Kannada hotels(1935-36), catering Dakshina Kannada snacks, with 'Udupi' prefixed to its name, like Udupi Boarding etc. The number of such restaurants started increasing during the second world war. The founder of 'Modern Cafe' and 'Das Prakash Hotel' Sri K. Seetharam Rao, 'Woodlands' hotel founder Sri K. Krishna Rao are some of the luminaries of the hotel industry who migrated to Madras. Woodlands hotel has reached even New York (1976). Mavalli Tiffin Room(MTR) 1924 established by Yajnanarayana Maiyya in Bangalore is very famous for quality food since several years.

'The birthplace of Banks', Udupi district is also famous for the Hotel Industry. Udupi district has several temples like Krishna Temple-Udupi; Mookambika Temple - Kollur; Jain Basadi - Karkala; Saint Lawrence Church-Attur, Maha Ganapathi Temple-Anegudde; and tourists spots like Saint Mary's Island -Malpe, beaches of Kapu, Maravante, and Byndoor; Educational centres like Manipal Academy Of Higher Education (MAHE- a deemed University), two Medical colleges, one Dental college, three Engineering Colleges, four Polytechnic Colleges; Medical centres like Hospitals, Ayurvedic Hospitals, Nursing Homes; and 14 Medium scale industries. All these attract devotees, tourists, students and jobseekers. Hotel Sharada International, Hotel Shri Ramakrishna, Hotel Durga International, Hotel Swadeshi Heritage, Hotel Udupi Residency, Hotel Rukmini Residency, Hotel Royal International, Hotel Kidiyoor, Hotel Big Boss, Hotel Bhavani, Sushma Lodging, Hotel Shantala, Hotel Janardhan, Hotel Karavali are all in Udupi. Paradise Highland(Malpe), Hotel Valley View International (Manipal), Hotel Green park(Manipal), Mother Palace(Brahmavar), Hotel Ashraya(Brahmavara), Hotel Amar Comfort(Padubidri), Hotel Swagat(Karkala), Hotel Suhag(Karkala), Hotel King's Court(Kundapur), Hotel Shashidhar(Kundapur), Hotel G.K. Residency(Karkala), Hotel Sharoon(Kundapur) are some of the hotels and resorts which cater dining, boarding and lodging facilities.
