

## Preface

A Hand Book of Karnataka, published by the department in 1996, is a valuable source material that gives the reader in a lucid language, authentic information about our state, its people, history, agriculture, industries, irrigation, art and architecture, literature, culture and the like. It was received warmly for all its worth and no sooner was it recommended as a reference book for the KAS examination, than the copies ran out of print.

It was a matter of coincidence that the reprint became imminent when I took over the Chief Editorship of the Gazetteer Department. I sought a helping hand from my colleagues in the department who were very busy in the publication of the revised edition of the Mandya district Gazetteer. I saw a buoyant support from them all and here we have an updated version of the handbook, which I am sure, will be better received.

I am beholden to the Hon'ble Chief Minister of Karnataka, Sri S.M. Krishna who has enhanced the worth of the publication with his valuable foreword and the Hon'ble Minister for Kannada and Culture Smt. Rani Satish for having given a scholarly introduction.

I remain indebted to the Chief Secretary to the Government of Karnataka, Smt. Teresa Bhattacharya, IAS, the chairman of the Advisory Committee, for her kind words on the publication. Our Secretary, Sri. A.R. Chandrasaha Gupta, IAS who has been with us in all our endeavours has given us the much-needed guidance and I express my deep sense of gratitude to him.

Dr. Suryanath U Kamat, the former Chief Editor, has been kind enough to go through the revised script and has given his valuable suggestions, for which I express my heartfelt thanks to him.

The efforts of several persons have gone behind the preparation of this Hand Book. My colleagues in the editorial section, who have put in their heart and soul into the publication, our entire office staff, Sriyuths Satish, K. Shivarudraiah and N.J. Gunaprakash who have provided slides and colour photographs for the volume, M/s. *Geethanjali Graphics* who have made the book neat and imposing, are all richly thanked.

**Dr. S.R. Honnalingaiah**  
Chief Editor

Date : 26-3-2001

# Contents

		Page No.
Chapter I	Introduction	1 - 34
	Location and Boundaries (1) Area and Population (1) Territorial Changes (3) Administrative Divisions (5) Physiography (16) Topography (17) Geology (17) Mineral Resources (18) Water Resources (19) River Systems (20) Climate (23) Temperature (23) Rainfall (24) Fauna (25) Flora (28) Forests (30) Environment (32) Air Pollution (33)	
	Ed : <i>S.N. Raju</i>	
Chapter II	History	35 - 66
	Bird's eye view (35) The Kadambas (36) The Gangas (37) The Badami Chalukyas (38) Rashtrakutas (39) Kalyana Chalukyas (40) The Sevunas (41) Hoysalas (42) Vijayanagar Empire (43) Bahamanis (45) The Adil Shahis (46) Keladi Kingdom (46) Mysore Rulers (47) British Rule (48) Modern Mysore (49) Economic Changes (49) Anti British Uprisings (50) Beginning of Renaissance (51) Modernisation (52) Cultural Developments (54) Fight for Freedom (55) Quit India (56) Unification of Karnataka (57) General Election (58) List of Governors (65) List of Chief Ministers (66).	
	Ed : <i>S.A. Jagannath &amp; S. Rajendrappa</i>	
Chapter III	People	67 - 84
	Demography (67) Sex ratio (68) Density of Population (68) Marital status (69) Urbanisation (69) Urban Agglomeration and cities (69) Rural Areas (69) Migration (70) SC/ST Population (70) Disable Population (71) Literacy (71) Languages (71) Religion (71) Modern Religious movement (76) Festivals and Fairs (76)	
	Ed : <i>Stephen Paul</i>	
Chapter IV	Agriculture and Allied Activities	85 - 111
	Agricultural Census (87) Cropping Pattern (91) Soil Conservation (93) Seeds (93) Manure and Fertilisers (93) Plant Protection (93) Programme of Agriculture Development (93) Crop Insurance (94)	

Irrigation (94) Flood Control and Sea Erosion (91) Horticulture (103) Coffee (103) Animal Husbandry (104) Livestock farms (108) Dairy Development (109) Fisheries (110)

Ed : *S.N. Raju*

- Chapter V Industries and Power 112 – 133
- Traditional Industries (112) Beginning of Modern Industries (115) Economic Conference (116) Public Sector Units (118) Service Enterprises (120) Manufacturing Enterprises (120) Marketing & Advertising (120) Electronics (121) Information Technology (122) International Technological Park (122) Industrial States (122) Handlooms (123) Handicrafts (124) Coir Industries (124) Khadi and Village Industries (125) Vishwa (125) Sericulture (125) Large and Medium Scale Industries (126) Power (126) Annual Plan (128) KEB (128) Energy Potential (129) Non-Conventional Sources (129) Rural Energy (129)
- Ed: *Stephen Paul*
- Chapter VI Banking, Co-operatives and Trade 134 – 147
- Agricultural Banks (135) Co-operative Movement (142) Regulated markets (145) Important markets (147)
- Ed: *G. Bhanudas*
- Chapter VII Transport & Communications 148 – 165
- Development of Roads (149) Road Transport Department (151) Public conveyance (153) Railways (154) Air transport (157) Bangalore Airport (157) Passport Office (157) Water Transport (158) Ocean Transport (159) Postal services (161) Telegraph (163) Telecommunications (163) All India Radio (164) Television (165)
- Ed: *S. Rajendrappa*
- Chapter VIII Economic Trends & Planning 166 – 176
- Advent of British (166) Planning in Mysore (167) Development under Plans (167) Financial resources (170) Other Trends (172) Economic Census (172) Employment (175)
- Ed: *S. Y. Bettegowda*

Chapter IX	Administration	177 – 192
	Land reforms (178) Chief Secretaries list (182) Judicial Administration (183) List of Chief Justices (185) Police Administration (185) Prisons (187) Local Self Government (188) Changes after 1956(189) Panchayati Raj (190) Karnataka Panchayat Act 1993 (1991)	
	Ed: <i>Stephen Paul, T.G. Narasimha Moorthy &amp; R.G. Kulkarni</i>	
Chapter X	Education & Sports	193 – 208
	Operation Black Board (195) Public examination for std VII (195) TCH/B.Ed. Course (195) Mobile Schools (195) Sanskrit Education (197) Music Education (197) Awards (197) Recruitment (197) Computerisation(197) Teachers' Education (197) PU Education (199) Revaluation of answer papers (200) Collegiate Education (200) University Education (202) Medical Education (202) Rajiv Gandhi University of Health Sciences (203) Technical Education (203) Sports (205) Arjuna Awards (207) Ekalavya Awards (208)	
	Ed: <i>T.G. Narasimha Moorthy</i>	
Chapter XI	Medical & Public Health Services	209 – 221
	Vital Statistics (209) indian System of Medicine (210) Communicable Diseases (210) Medical Institutions (213) Specialised Institutions (214) General Hospitals (216) India Population Project (216) Population Centre (216) Family Welfare Services (217) School Health programmes (220) Pulse Polio (220) ESI (220) Chief Minister's Medical Relief Society (220)	
	Ed: <i>R.G. Kulkarni</i>	
Chapter XII	Social Welfare Measures	222 – 234
	Labour Welfare (222) Welfare of SCs & STs (224) Women and Child welfare (229) Welfare of Disabled population (232) other Welfare Schemes (233)	
	Ed : <i>K.M. Vijayalakshmi</i>	
Chapter XIII	Culture	235 – 275
	Ed : <i>K.M. Vijayalakshmi &amp; Dr. A. Lakshminarasimhan</i>	
Chapter XIV	Karnataka, the Tourist Paradise	276 – 310
	Ed : <i>S. Rajendrappa</i>	

## Karnataka Gazetteer Staff

### Chief Editor

Dr. S. R. Honnalingaiah

### Editors

S. A. Jagannath (Sr. Editor Adff. Charge)  
T. G. Narasimha Moorthy (Sr. Editor Adff. Charge)  
R. G. Kulkarni  
S. N. Raju  
S. Rajendrappa  
S. Y. Bettgowda

### Investigators

Stephen Paul  
G. Bhanudas  
Dr. A. Lakshminarasimhan  
K. M. Vijayalakshmi

### Office Staff

*Superintendent*  
B. C. Revanna

*First Dvn. Assistants*  
S. Raghavendra Rao  
C. R. Leelavathi

*Second Dvn. Asst.*  
K. S. Subbalakshmi

*Asst. Librarian*  
G. S. Patil

*Stenographer*  
P. Suneeta

*Typist*  
C. Nagalakshmi

*Drivers*  
M. Babu  
T. B. Kushalappa

*Group D*  
B. C. Suresh Kumar  
H. Chandra  
H. N. Raghavendra

## Chapter I

# INTRODUCTION

**K**arnataka has a rich heritage, inspiring its people to create a bright future. With its special geographical location full of variety-its rivers, hills, valleys, plains, forests and resources-the State is known for its tourist and industrial potential. Its long history of over 2,000 years has left many beautiful forts, tanks, temples, mosques and towns of historical importance to the posterity. These old towns have grown to be industrial, commercial and educational centres. They are provided with all modern facilities.

Bordered by the Western Ghats with tall peaks and lush greenery in the west, the tableland is fertile because of its black soil and river and tank irrigation facilities. The coastal strip to the west of the Ghats is renowned for its silvery beaches and rich green paddy fields.

Karnataka has rich religious and artistic traditions. The land has been described by a poet in a stone record in the 15<sup>th</sup> Century in following words:

*A mine of good discipline,  
The dwelling place of Brahma,  
The land which had acquired great fortune,  
The birth place of learning and wealth,  
The true home of unequalled splendid earnestness  
Thus distinguished in many ways  
Shone the lovely Karnata Country.*

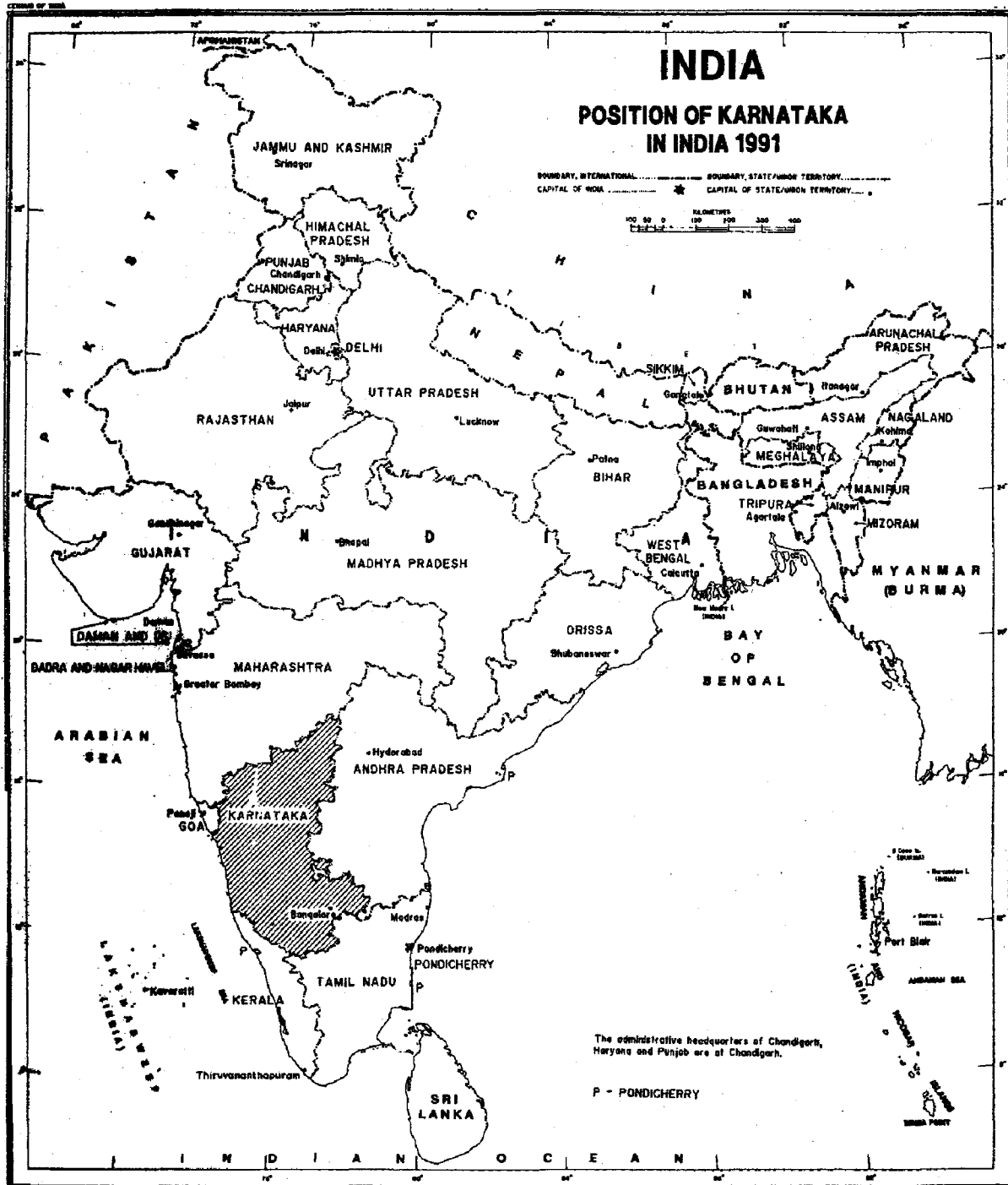
The temples of antiquity speak of the piety of their devotees. The *agraharas* and *mathas* spread all over vouch to the scholarly pursuits to which people were attached. The herostones strewn the land speak of the heroic traits of the warrior race of antiquity. Long traditions of growing cotton are clear evidence to once flourishing rich textile industry. The ports along the coast remind one of the rich overseas trade that flourished through them. The black soil plains speak of its agricultural potential. The State's human resources with racial and religious varieties and professional skills promise to make it a hub of industriousness.

### **Location and Boundaries**

The State of Karnataka, confined roughly within 11°35' North and 18°30' North latitudes and 74°5' East and 78°35' East longitude, is situated on a tableland where the Western and Eastern Ghat ranges converge into the Nilgiri hill complex. It is located in the Western part of the Deccan Peninsular region of India. The State is bounded by Maharashtra and Goa States in the North and North-West; by the Arabian sea in the West; by Kerala and Tamilnadu States in the South and by the State of Andhra Pradesh in the East. The State extends to about 750 km from North to South and about 400 km from East to West.

### **Area and Population**

Karnataka's total land area is 1,91,791 sq.km. It accounts for 5.83 per cent of the total area of the Country (32.88 lakh sq.km) and ranks eighth among major States of the



Karnataka in India

Country in terms of size. As per 1991 Census, the State's population was 449.7 lakhs. It was 5.3 per cent of all-India population of 8,463 lakhs. Among different States, Karnataka occupies eighth place with regard to population. The density of population as per 1991 Census was 235 persons per sq.km which was lower than the all-India density of 273 (excluding Assam and Jammu & Kashmir). Among the States, Karnataka was in the thirteenth position. Among the existing 27 districts, Gulbarga district occupies the largest geographical area of the State with 8.46 per cent of the State's area and Bangalore district has the smallest area with only 1.14 per cent of the State's geographical area. During 2000, three more new States were created in the Country raising the number of States to 28. Uttaranchal State was carved out of Uttar Pradesh, Chhattisgarh State was carved out of Madhya Pradesh and Jharkland State was carved out of Bihar State. The area and population by States as per 1991 census is given in page 15.

### **Territorial Changes**

The erstwhile princely State of Mysore came into existence after the Fourth Anglo-Mysore war in 1799 A.D. and it formed the nucleus State for the New State of Mysore under the States' Reorganisation Act of 1956. The area reported corresponding to the unit was 75,412 sq.km. In 1881 this unit consisted of only seven districts namely Bangalore, Tumkur, Kolar, Kadur, Mysore, Chitradurga and Shimoga. In 1886 Hassan Dt. was carved out as eighth Dt. And in 1939, Mandya Dt. was created as the ninth Dt. In 1953, the Bellary Dt. of Madras State (excluding Adoni, Alur and Rayadurga taluks) was transferred to Mysore State when the State of Andhra Pradesh was formed, resulting in an addition of 9,897 sq.km. to the area of the State.

The State of Mysore (rechristened as Karnataka with effect from 1.11.1973) with its territorial content as it exists now was formed on 1<sup>st</sup> November 1956 under the States' Reorganisation Act. It comprised of a) the old Mysore State including Bellary Dt ; b) Bijapur, Dharwad and Uttara Kannada Dt. and Belgaum Dt. excluding Chandgad taluk with an area of 54,347 sq.km; c) Gulbarga (Except Kodangal and Tandur taluks)-16,274 sq.km; Raichur (except Alampur and Gadwal taluks)-14,078 sq.km; and Bidar Dt. (except Ahmedpur, Nilanga and Udgir taluks, Nayalkar Circle of Bidar taluk, Zahirabad taluk except Nirna circle and three villages of Humnabad taluk and Narayankhed taluk) with an area of 5,363 sq.km. from former Hyderabad State; d) Dakshina Kannada (except Kasargod taluk and Amindivi islands) with an area of 8,385 sq.km; and Kollegal tq. of Coimbatore Dt. with an area of 2,786 sq.km. from former Madras State; and e) former part C State of Coorg (Kodagu) Dt. with an area of 4,131 sq.km.

In 1969, Savanur tq. was created and in 1974, Hagaribommanahalli tq. was created by the abolition of the former Mallapuram tq. In Bellary Dt. During 1986, Bangalore Rural Dt. was carved out of the former Bangalore Dt. Bangalore Dt. includes Anekal taluk, Bangalore North tq. (including Jala hobli of the former Devanahalli tq. and Dasanapura hobli of the former Nelamangala tq.), Bangalore South tq. (including Tavarekere hobli of the former Magadi tq. and Bidarahalli hobli of the former Hoskote taluk) and Bangalore Urban Agglomeration areas. The Jurisdiction of Karnataka state extends over portions land-locked within Maharashtra i.e. Dhamne S. Bailur and Kudrimani of Belgaum tq. and Mukhed of Aurad tq. of Bidar Dt.





In August 1997, seven more districts were newly formed raising the number of districts in the State to 27. Bijapur district was bifurcated into Bijapur and Bagalkot districts. Out of eleven taluks, Jamkhandi, Mudhol, Bilgi, Bagalkot, Badami and Hungund taluks were brought under the new Bagalkot district. The present Bijapur district has Indi, Sindhagi, Bijapur, Basavana Bagewadi and Muddebihal taluks. The new Davanagere district was formed by transferring Davanagere, Harihara and Jagalur taluks from Chitradurga district, Channagiri and Honnali taluks from Shimoga district and Harapanahalli taluk from Bellary district. Dharwad district was divided into three districts viz Dharwad, Gadag and Haveri. Haveri district included Shiggaon, Savanur, Hanagal, Haveri, Byadgi, Hirekerur and Ranibennur taluks. Gadag district comprises of Nargund, Ron, Gadag, Mundargi and Shirahatti taluks while the remaining five taluks viz Dharwad, Navalgund, Hubli, Kalghatgi and Kundgol constituted Dharwad district.

Raichur district was bifurcated into Raichur and Koppal districts. Gangavathi, Koppal, Kusthagi and Yelburga taluks were brought under the newly formed Koppal district while the remaining five taluks viz Devadurga, Lingsurgur, Manvi, Raichur and Sindhanur taluks constituted new Raichur district. Dakshina Kannada was bifurcated into Dakshina Kannada and Udupi districts. Belthangady, Bantwal, Mangalore, Puttur and Sullya taluks remained in new Dakshina Kannada while Karkala, Kundapur and Udupi taluks were transferred to the newly created Udupi district. Out of the eleven taluks of old Mysore district, Chamaraajanagar, Gundlupet, Kollegal and Yelandur taluks were transferred to the newly formed Chamaraajanagar district while the remaining seven taluks viz Heggadadevanakote, Hunsur, Krishnarajpet, Mysore, Nanjangud, Periyapatna and Tirumakudal Narasipur taluks formed part of Mysore district.

### **Administrative Divisions**

Karnataka State has been divided into four Revenue divisions, 49 sub-divisions, 27 districts, 175 taluks and 745 hoblies/Revenue Circles for administrative purposes. The district-wise area, population and administrative divisions of Karnataka State are given in Table No. 1.1 on page 6 and 7. The Bangalore Division comprises of Bangalore (Urban), Bangalore Rural, Tumkur, Kolar, Chitradurga, Shimoga and Davanagere districts with headquarters at Bangalore. The Mysore Division consists of the districts of Mysore, Mandya, Hassan Chikmagalur, Dakshina Kannada, Kodagu, Udupi and Chamaraajanagar districts with headquarters at Mysore. The Belgaum Division has Belgaum, Bijapur, Dharwad, Gadag, Haveri, Uttara Kannada and Bagalkot districts under its jurisdiction with headquarters at Belgaum; and Gulbarga division with headquarters at Gulbarga covers the districts of Bidar, Gulbarga, Bellary, Raichur and Koppal districts. The State has 27,066 inhabited and 2,127 uninhabited villages, 254 towns and urban agglomerations, 5,692 Grampanchayats and 218 Municipal Corporations. Karnataka has only one city with more than a million population viz, Bangalore. It is one of the six largest urban agglomeration out of 23 metropolises, urban agglomerations and cities in India. It occupied fifth position in 1981. In 1991, among six biggest cities only Delhi has grown at a faster rate than Bangalore. The taluk-wise area in sq km, Population, number of inhabited and uninhabited villages, number of sub-divisions and No. of hoblies is given in pages 6 to 14.

## Area, Population and Administrative Divisions in Karnataka

District	Area (Sq Km)	% of State	Population (1991)	% of State	Density (1991)	No. of Taluks	No. of Hoblies
Bangalore	2,190	1.14	4,839,162	10.76	2,210	3	17
Bangalore Rural	5,815	3.03	1,673,194	3.72	288	8	35
Chitradurga	8,388	4.37	1,312,717	2.92	156	6	22
Davanagere	6,018	3.14	1,559,222	3.47	259	6	24
Kolar	8,223	4.29	2,216,889	4.93	270	11	53
Shimoga	8,465	4.41	1,452,259	3.23	172	7	40
Tumkur	10,598	5.53	2,305,819	5.13	218	10	50
<b>Bangalore Dvn</b>	<b>49,697</b>	<b>25.91</b>	<b>15,359,262</b>	<b>34.15</b>	<b>309</b>	<b>51</b>	<b>241</b>
Belgaum	13,415	6.99	3,583,606	7.97	267	10	35
Bijapur	10,475	5.46	1,533,448	3.41	146	5	18
Bagalkot	6,594	3.44	1,394,542	3.10	211	6	18
Dharwad	4,230	2.21	1,374,895	3.06	325	5	14
Gadag	4,657	2.43	859,042	1.91	184	5	11
Haveri	4,851	2.53	1,269,213	2.82	262	7	19
Uttara Kannada	10,291	5.37	1,220,260	2.71	119	11	35
<b>Belgaum Dvn</b>	<b>54,513</b>	<b>28.42</b>	<b>11,235,006</b>	<b>24.98</b>	<b>206</b>	<b>49</b>	<b>150</b>
Bellary	8,419	4.39	1,656,000	3.68	197	7	27
Bidar	5,448	2.84	1,255,798	2.79	231	5	30
Gulbarga	16,224	8.46	2,582,169	5.74	159	10	48
Raichur	5,559	2.90	1,351,809	3.01	243	5	37
Koppal	8,458	4.41	958,078	2.13	113	4	20
<b>Gulbarga Dvn</b>	<b>44,108</b>	<b>23.00</b>	<b>7,803,854</b>	<b>17.35</b>	<b>173</b>	<b>31</b>	<b>162</b>
Chikmagalur	7,201	3.75	1,017,283	2.26	141	7	32
Dakshina Kannada	4,843	2.53	1,633,392	3.63	337	5	16
Udupi	3,598	1.88	1,060,872	2.36	295	3	10
Hassan	6,814	3.55	1,569,684	3.49	230	8	38
Kodagu	4,102	2.14	488,455	1.09	119	3	16
Mandya	4,961	2.59	1,644,374	3.66	331	7	31
Mysore	6,269	3.27	2,281,653	5.07	364	7	33
Chamarajnagar	5,685	2.96	883,365	1.96	155	4	16
<b>Mysore Dvn</b>	<b>43,473</b>	<b>22.67</b>	<b>10,579,078</b>	<b>23.52</b>	<b>243</b>	<b>44</b>	<b>192</b>
<b>State</b>	<b>191,791</b>	<b>100</b>	<b>44,977,200</b>	<b>100.00</b>	<b>235</b>	<b>175</b>	<b>745</b>

Continued

District	Gram Panchayats (1999)	Towns/Urban Agglomerations	Municipalities/Corporations	Inhabited villages (1991)	Un-inhabited villages (1991)	% of Rural Population	% of Urban Population
Bangalore	115	4	10	681	47	2.16	29.98
Bangalore Rural	229	9	9	1,713	170	4.41	2.18
Chitradurga	185	6	6	932	127	3.53	1.56
Davanagere	234	9	6	786	132	3.60	3.17
Kolar	306	13	12	2,889	432	5.47	3.72
Shimoga	258	12	8	1,430	103	3.16	3.39
Tumkur	321	12	10	2,537	181	6.19	2.75
<b>Bangalore Dvn</b>	<b>1,648</b>	<b>65</b>	<b>61</b>	<b>10,968</b>	<b>1,192</b>	<b>28.52</b>	<b>46.74</b>
Belgaum	481	20	16	1,138	26	8.82	6.05
Bijapur	202	7	6	639	4	3.97	2.15
Bagalkot	162	11	12	608	2	3.24	2.80
Dharwad	126	5	6	362	10	2.10	5.19
Gadag	106	9	9	307	5	1.81	2.14
Haveri	208	6	7	675	7	3.43	1.47
Uttara Kannada	223	14	12	1,264	53	2.98	2.12
<b>Belgaum Dvn</b>	<b>1,508</b>	<b>72</b>	<b>68</b>	<b>4,993</b>	<b>107</b>	<b>26.35</b>	<b>21.92</b>
Bellary	189	9	10	517	25	3.62	3.81
Bidar	177	5	6	587	22	3.25	1.77
Gulbarga	336	17	12	1,295	83	6.35	4.38
Raichur	165	8	6	808	70	3.28	2.39
Koppal	136	5	4	588	40	2.61	1.06
<b>Gulbarga Dvn</b>	<b>1,003</b>	<b>44</b>	<b>38</b>	<b>3,795</b>	<b>240</b>	<b>19.11</b>	<b>13.42</b>
Chikmagalur	227	10	8	1,021	92	2.72	1.24
Dakshina Kannada	208	6	8	371	0	3.59	3.72
Udupi	145	10	4	244	0	2.63	1.76
Hassan	259	12	8	2,369	183	4.17	1.96
Kodagu	99	9	3	291	5	1.32	0.56
Mandya	233	11	8	1,365	113	4.43	1.92
Mysore	239	10	8	1,203	129	4.72	5.87
Chamarajnagar	123	5	4	446	66	2.45	0.89
<b>Mysore Dvn</b>	<b>1,533</b>	<b>73</b>	<b>51</b>	<b>7,310</b>	<b>588</b>	<b>26.03</b>	<b>17.92</b>
<b>State</b>	<b>5,692</b>	<b>254</b>	<b>218</b>	<b>27,066</b>	<b>2,127</b>	<b>100.00</b>	<b>100.00</b>

Source : Karnataka at a glance 1999-2000, Directorate of Economics and Statistics, Bangalore.

## Taluk-wise area, population, number of hoblies and villages in Karnataka

Name of the District	Name of Taluks/ Sub-divisions	Area in Sq Km	Population 1991	No. of Villages		No of Hob- lies
				Inha- bited	Unin- habited	
1	2	3	4	5	6	7
Bangalore	<b>BANGALORE DIVISION</b>					
	1 Anekal	535	221,159	213	10	4
	2 Bangalore South	799	932,751	231	13	6
	<b>B'lore South Sub-Dn.</b>	<b>1,335</b>	<b>1,153,910</b>	<b>444</b>	<b>23</b>	<b>10</b>
	1 Bangalore North	871	1,025,164	237	24	7
	<b>B'lore North Sub-Dn.</b>	<b>871</b>	<b>1,025,164</b>	<b>237</b>	<b>24</b>	<b>7</b>
	Bangalore M.C	126	2,660,088	0	0	0
	<b>Bangalore District</b>	<b>2,190</b>	<b>4,839,162</b>	<b>681</b>	<b>47</b>	<b>17</b>
Bangalore Rural	1 Devanahalli	449	160,683	191	29	4
	2 Doddaballapur	792	224,647	271	27	5
	3 Hoskote	548	188,499	254	45	5
	4 Nelamangala	510	143,696	231	12	3
	<b>Doddaballapur Sub-Dn.</b>	<b>2,299</b>	<b>717,525</b>	<b>947</b>	<b>113</b>	<b>17</b>
	1 Channapatna	543	239,203	133	12	3
	2 Kanakapura	1,606	316,458	238	20	6
	3 Ramanagaram	631	205,956	126	9	4
	4 Magadi	800	194,052	269	16	5
	<b>Ramanagaram Sub-Dn.</b>	<b>3,580</b>	<b>955,669</b>	<b>766</b>	<b>57</b>	<b>18</b>
	<b>B'lore Rural District</b>	<b>5,815</b>	<b>1,673,194</b>	<b>1,713</b>	<b>170</b>	<b>35</b>
Chitradurga	1 Chalkere	2,063	279,387	175	15	4
	2 Chitradurga	1,376	322,032	163	23	4
	3 Hiriyur	1,701	228,703	150	7	4
	4 Molakalmur	736	103,536	77	14	2
	5 Hosadurga	1,416	199,849	194	30	4
	6 Holalkere	1,095	179,210	163	38	4
	<b>Chitradurga Sub-Dn.</b>	<b>8,388</b>	<b>1,312,717</b>	<b>922</b>	<b>127</b>	<b>22</b>
	<b>Chitradurga District</b>	<b>8,388</b>	<b>1,312,717</b>	<b>922</b>	<b>127</b>	<b>22</b>
Davanagere	1 Channagiri	1,209	257,377	199	47	6
	2 Davanagere	957	514,168	156	16	3
	3 Harihar	485	216,793	77	10	2
	4 Honnali	865	200,027	146	22	6
	<b>Davanagere Sub-Dn.</b>	<b>3,516</b>	<b>1,188,365</b>	<b>578</b>	<b>95</b>	<b>17</b>
	1 Harapanahalli	1,438	234,092	74	1	4
	2 Jagalur	964	136,765	134	36	3
	<b>Harapanahalli Sub-Dn.</b>	<b>2,402</b>	<b>370,857</b>	<b>208</b>	<b>37</b>	<b>7</b>
	<b>Davanagere District</b>	<b>6,018</b>	<b>1,559,222</b>	<b>786</b>	<b>132</b>	<b>24</b>

1	2	3	4	5	6	7
Kolar	1 Bagepalli	933	145,900	209	19	5
	2 Chikballapur	644	169,233	219	34	3
	3 Chintamani	892	235,711	344	63	6
	4 Gauribidanur	895	240,115	216	20	6
	5 Gudibanda	227	45,821	84	21	2
	6 Sidlaghatta	665	168,251	245	45	4
	<b>Chikballapur Sub-Dn.</b>	<b>4,255</b>	<b>1,005,031</b>	<b>1,317</b>	<b>202</b>	<b>26</b>
	1 Bangarapet	864	387,830	352	32	6
	2 Kolar	793	284,079	323	39	7
	3 Malur	645	173,860	296	68	4
	4 Mulbagal	824	202,893	311	34	5
	5 Srinivasapur	860	163,196	290	57	5
	<b>Kolar Sub-Dn.</b>	<b>3,986</b>	<b>1,211,858</b>	<b>1,572</b>	<b>230</b>	<b>27</b>
		<b>Kolar District</b>	<b>8,223</b>	<b>2,216,889</b>	<b>2,889</b>	<b>432</b>
Shimoga	1 Bhadravathi	690	324,673	146	7	6
	2 Thirthahalli	1,247	131,071	245	2	5
	3 Shimoga	1,108	365,522	198	24	8
	<b>Shimoga Sub-Dn.</b>	<b>3,045</b>	<b>821,266</b>	<b>589</b>	<b>33</b>	<b>19</b>
	1 Hosanagar	1,423	102,714	197	5	4
	2 Sagar	1,940	177,157	233	5	6
	3 Shikaripur	908	188,752	153	22	5
	4 Sorab	1,148	162,370	268	38	6
	<b>Sagar Sub-Dn.</b>	<b>5,420</b>	<b>630,993</b>	<b>851</b>	<b>70</b>	<b>21</b>
	<b>Shimoga District</b>	<b>8,465</b>	<b>1,452,259</b>	<b>1,440</b>	<b>103</b>	<b>40</b>
Tumkur	1 Chikkanayakanahalli	1,113	193,419	226	8	5
	2 Tiptur	784	195,826	222	9	4
	3 Turuvekere	778	164,609	228	15	4
	<b>Tiptur Sub-Dvn</b>	<b>2,675</b>	<b>553,854</b>	<b>676</b>	<b>32</b>	<b>13</b>
	1 Gubbi	1,221	231,615	325	21	6
	2 Kunigal	981	235,050	291	23	6
	3 Tumkur	1,026	426,137	360	25	6
	<b>Tumkur Sub-Dn.</b>	<b>3,227</b>	<b>892,802</b>	<b>976</b>	<b>69</b>	<b>18</b>
	1 Koratagere	652	145,560	230	21	4
	2 Madhugiri	1,130	245,600	286	35	6
	3 Pavagada	1,358	212,768	141	3	4
	4 Sira	1,551	255,235	228	21	5
	<b>Madhugiri Sub-Dn.</b>	<b>4,692</b>	<b>859,163</b>	<b>885</b>	<b>80</b>	<b>19</b>
		<b>Tumkur District</b>	<b>10,598</b>	<b>2,305,819</b>	<b>2,537</b>	<b>181</b>
	<b>Bangalore Dn.</b>	<b>49,697</b>	<b>15,359,262</b>	<b>10,968</b>	<b>1,192</b>	<b>241</b>

1	2	3	4	5	6	7
Bagalkot	<b>BELGAUM DIVISION</b>					
	1 Badami	1,397	256,620	146	0	4
	2 Bagalkot	935	239,699	89	1	3
	3 Hungund	1,354	245,318	160	0	4
	<b>Bagalkot Sub-dn</b>	<b>3,687</b>	<b>741,637</b>	<b>395</b>	<b>1</b>	<b>11</b>
	1 Bilgi	782	118,998	65	0	2
	2 Jamakhandi	1,169	339,354	71	0	3
	3 Mudhol	950	194,553	77	1	2
	<b>Jamkhandi Sub-dn</b>	<b>2,901</b>	<b>652,905</b>	<b>213</b>	<b>1</b>	<b>7</b>
	<b>Bagalkot District</b>	<b>6,594</b>	<b>1,394,542</b>	<b>608</b>	<b>2</b>	<b>18</b>
Belgaum	1 Bailhongal	1,122	311,003	126	0	3
	2 Gokak	1,540	441,339	107	0	3
	3 Ramdurg	1,216	203,241	103	0	4
	4 Saundatti	1,581	274,151	105	13	4
	<b>Bailhongal sub-dn</b>	<b>5,459</b>	<b>1,229,734</b>	<b>441</b>	<b>13</b>	<b>14</b>
	1 Belgaum	1,037	675,677	122	2	4
	2 Hukeri	988	308,659	111	9	3
	3 Khanapur	1,730	216,719	218	1	4
	<b>Belgaum sub-dn</b>	<b>3,755</b>	<b>1,201,055</b>	<b>451</b>	<b>12</b>	<b>11</b>
	1 Athani	1,996	382,222	89	0	4
	2 Chikodi	1,273	487,633	102	1	4
	3 Raibag	959	282,962	55	0	2
	<b>Chikodi sub-dn</b>	<b>4,227</b>	<b>1,152,817</b>	<b>246</b>	<b>1</b>	<b>10</b>
	<b>Belgaum District</b>	<b>13,415</b>	<b>3,583,606</b>	<b>1,138</b>	<b>26</b>	<b>35</b>
Bijapur	1 Basavana Bagevadi	1,974	257,117	119	0	3
	2 Bijapur	2,659	473,047	107	1	5
	3 Muddebihal	1,502	219,236	149	1	4
	<b>Bijapur sub-dn</b>	<b>6,135</b>	<b>949,400</b>	<b>375</b>	<b>2</b>	<b>12</b>
	1 Indi	2,225	303,133	122	1	3
	2 Sindhagi	2,176	280,915	142	1	3
	<b>Indi sub-dn</b>	<b>4,401</b>	<b>584,048</b>	<b>264</b>	<b>2</b>	<b>6</b>
	<b>Bijapur District</b>	<b>10,475</b>	<b>1,533,448</b>	<b>639</b>	<b>4</b>	<b>18</b>
Dharwad	1 Dharwad	1,032	841,141	108	4	4
	2 Hubli	632	113,085	53	5	3
	3 Kalghatgi	683	121,248	87	0	3
	4 Kundgol	649	137,950	56	1	2
	5 Navalgund	1,081	161,471	58	0	2
	<b>Dharwad sub-dn</b>	<b>4,076</b>	<b>1,374,895</b>	<b>362</b>	<b>10</b>	<b>14</b>
	<b>Dharwad District</b>	<b>4,230</b>	<b>1,374,895</b>	<b>362</b>	<b>10</b>	<b>13</b>

1	2	3	4	5	6	7
Gadag	1 Gadag	1,097	289,904	55	0	2
	2 Mundargi	884	101,794	48	0	2
	3 Nargund	436	86,691	34	1	2
	4 Ron	1,291	220,973	91	0	3
	5 Shirahatti	949	159,680	79	4	2
	<b>Gadag sub-dn</b>	<b>4,657</b>	<b>859,042</b>	<b>307</b>	<b>5</b>	<b>11</b>
	<b>Gadag District</b>	<b>4,657</b>	<b>859,042</b>	<b>307</b>	<b>5</b>	<b>11</b>
Haveri	1 Byadgi	437	111,935	62	1	2
	2 Haveri	800	220,476	86	2	3
	3 Hirekerur	807	191,956	125	3	3
	4 Ranebennur	907	269,265	103	0	3
	<b>Haveri sub-dn</b>	<b>2,950</b>	<b>793,632</b>	<b>376</b>	<b>6</b>	<b>11</b>
	1 Hanagal	774	204,408	144	1	3
	2 Savanur	539	123,674	62	0	2
	3 Shiggaon	589	147,499	93	0	3
	<b>Savanur sub-dn</b>	<b>1,901</b>	<b>475,581</b>	<b>299</b>	<b>1</b>	<b>8</b>
	<b>Haveri District</b>	<b>4,851</b>	<b>1,269,213</b>	<b>675</b>	<b>7</b>	<b>19</b>
Uttara Kannada	1 Bhatkal	349	129,017	60	1	2
	2 Honnavar	755	145,842	92	1	3
	<b>Bhatkal sub-dn</b>	<b>1,104</b>	<b>274,859</b>	<b>152</b>	<b>2</b>	<b>5</b>
	1 Haliyal	839	94,363	112	21	4
	2 Karwar	732	140,282	55	2	4
	3 Supa	1,911	99,519	116	7	3
	<b>Karwar sub-dn</b>	<b>3,482</b>	<b>334,164</b>	<b>283</b>	<b>30</b>	<b>11</b>
	1 Ankola	919	91,310	84	2	4
	2 Kumta	582	134,144	113	6	4
	<b>Kumta sub-dn</b>	<b>1,501</b>	<b>225,454</b>	<b>197</b>	<b>8</b>	<b>8</b>
	1 Mundgod	668	75,046	84	10	2
	2 Siddapur	859	91,646	199	2	3
	3 Sirsi	1,320	152,935	222	1	4
	4 Yellapur	1,301	66,156	127	0	2
	<b>Sirsi sub-dn</b>	<b>4,149</b>	<b>385,783</b>	<b>632</b>	<b>13</b>	<b>11</b>
	<b>Uttara Kannada Dist.</b>	<b>10,291</b>	<b>1,220,260</b>	<b>1,264</b>	<b>53</b>	<b>3</b>
	<b>Belgaum Dn</b>	<b>54,514</b>	<b>11,235,006</b>	<b>4,993</b>	<b>107</b>	<b>148</b>
Bellary	<b>GULBARGA DIVISION</b>					
	1 Bellary	1,689	495,437	100	3	5
	2 Sandur	1,231	156,409	76	12	3
	3 Sirguppa	1,042	189,442	83	1	4
	<b>Bellary Sub-dn</b>	<b>3,962</b>	<b>841,288</b>	<b>259</b>	<b>16</b>	<b>12</b>



1	2	3	4	5	6	7
	1 Hospet	934	312,897	71	3	4
	2 Huvinahadagali	948	147,309	53	1	3
	3 Kudligi	1,602	219,480	82	2	4
	4 Hagari Bommanahalli	974	135,026	52	3	4
	<b>Hospet Sub-dn</b>	<b>4,458</b>	<b>814,712</b>	<b>258</b>	<b>9</b>	<b>15</b>
	<b>Bellary District</b>	<b>8,419</b>	<b>1,656,000</b>	<b>517</b>	<b>25</b>	<b>27</b>
Bidar	1 Bidar	926	331,452	123	14	6
	2 Aurad	1,224	210,040	149	0	6
	<b>Bidar Sub-dn</b>	<b>2,150</b>	<b>541,492</b>	<b>272</b>	<b>14</b>	<b>12</b>
	1 Basavakalyan	1,206	246,340	113	1	6
	2 Humnabad	985	245,049	82	5	6
	3 Bhalki	1,117	222,918	120	2	6
	<b>Basavakalyan Sub-dn</b>	<b>3,309</b>	<b>714,307</b>	<b>315</b>	<b>8</b>	<b>18</b>
	<b>Bidar District</b>	<b>5,448</b>	<b>1,255,799</b>	<b>587</b>	<b>22</b>	<b>30</b>
Gulbarga	1 Gulbarga	1,730	523,944	135	8	6
	2 Aland	1,735	260,834	128	1	5
	3 Jewargi	1,822	188,707	146	12	5
	4 Afzalpur	1,305	150,856	87	3	3
	<b>Gulbarga sub-dn</b>	<b>6,592</b>	<b>1,124,341</b>	<b>496</b>	<b>24</b>	<b>19</b>
	1 Yadgir	1,709	274,082	130	13	6
	2 Shahapur	1,694	240,206	143	11	5
	3 Shorapur	1,820	281,743	175	10	5
	<b>Yadgir sub-dn</b>	<b>5,223</b>	<b>796,031</b>	<b>448</b>	<b>34</b>	<b>16</b>
	1 Sedam	1,024	163,155	102	8	4
	2 Chincholi	1,569	189,161	131	14	4
	3 Chitapur	1,765	309,481	118	3	5
	<b>Sedam Sub-dn</b>	<b>4,358</b>	<b>661,797</b>	<b>351</b>	<b>25</b>	<b>13</b>
	<b>Gulbarga District</b>	<b>16,224</b>	<b>2,582,169</b>	<b>1,295</b>	<b>83</b>	<b>48</b>
Raichur	1 Raichur	1,541	358,846	150	6	6
	2 Manvi	1,791	269,273	164	7	9
	3 Devadurga	1,508	176,889	169	19	4
	<b>Raichur sub-dn</b>	<b>4,841</b>	<b>805,008</b>	<b>483</b>	<b>32</b>	<b>19</b>
	1 Lingasugur	1,948	262,043	182	9	4
	2 Sindhanur	1,598	284,758	143	29	14
	<b>Lingasugur Sub-dn</b>	<b>3,546</b>	<b>546,801</b>	<b>325</b>	<b>38</b>	<b>18</b>
	<b>Raichur District</b>	<b>5,559</b>	<b>1,351,809</b>	<b>808</b>	<b>70</b>	<b>37</b>
Koppal	1 Koppal	1,375	251,713	138	13	4
	2 Gangavathi	1,328	320,394	147	9	8
	3 Kushtagi	1,366	189,891	164	13	4

1	2	3	4	5	6	7
	4 Yelburga <b>Koppal Sub-dn</b>	1,490 <b>5,559</b>	196,080 <b>958,078</b>	139 <b>588</b>	5 <b>40</b>	4 <b>20</b>
	<b>Koppal District</b>	<b>8,458</b>	<b>958,078</b>	<b>588</b>	<b>40</b>	<b>20</b>
	<b>Gulbarga Dn</b>	44,108	7,803,855	3,795	240	16
	<b>MYSORE DIVISION</b>					
Chamarajanagar	1 Chamarajanagar	1,229	311,323	173	15	5
	2 Gundlupet	1,406	195,706	144	14	4
	3 Kollegal	2,786	304,621	103	37	5
	4 Yelandur	265	71,715	26	0	2
	<b>Kollegal sub-dn</b>	<b>5,686</b>	<b>883,365</b>	<b>446</b>	<b>66</b>	<b>16</b>
	<b>Chamarajanagar Dist.</b>	<b>5,686</b>	<b>883,365</b>	<b>446</b>	<b>66</b>	<b>16</b>
Chikmagalur	1 Chikmagalur	1,614	253,722	216	16	8
	2 Koppa	572	80,596	80	0	3
	3 Mudigere	1,162	128,437	140	0	5
	4 Sringeri	443	33,272	47	2	2
	<b>Chikmagalur Sub-dn</b>	<b>3,791</b>	<b>496,027</b>	<b>483</b>	<b>18</b>	<b>18</b>
	1 Kadur	1,416	259,914	268	38	6
	2 Narasimharajapura	804	56,324	58	0	2
	3 Tarikere	1,222	205,018	212	36	6
	<b>Tarikere sub-dn</b>	<b>3,442</b>	<b>521,256</b>	<b>538</b>	<b>74</b>	<b>14</b>
	<b>Chikmagalur District</b>	<b>7,201</b>	<b>1,017,283</b>	<b>1,021</b>	<b>92</b>	<b>3</b>
Dakshina Kannada	1 Bantwal	735	323,005	80	0	3
	2 Mangalore	560	671,360	77	0	5
	<b>Mangalore sub-dn</b>	<b>1,295</b>	<b>9,94,365</b>	<b>157</b>	<b>0</b>	<b>8</b>
	1 Belthangadi	1,376	211,394	81	0	3
	2 Puttur	1,000	237,237	66	0	3
	3 Sullya	827	124,824	41	0	2
	<b>Puttur sub-dn</b>	<b>3,203</b>	<b>573,455</b>	<b>188</b>	<b>0</b>	<b>8</b>
	<b>Dakshina Kannada Dist.</b>	<b>4,843</b>	<b>1,567,820</b>	<b>345</b>	<b>0</b>	<b>16</b>
Hassan	1 Arasikere	1,271	284,379	334	34	5
	2 Channarayapatna	1,044	254,212	376	12	6
	3 Hassan	941,95	315,676	355	30	5
	4 Holenarsipur	602	158,615	209	39	3
	<b>Hassan sub-dn</b>	<b>2,918</b>	<b>1,012,882</b>	<b>1,274</b>	<b>115</b>	<b>19</b>
	1 Alur	432	79,081	247	10	4
	2 Arakalgud	674	182,647	275	21	5
	3 Belur	845	170,321	349	34	5

1	2	3	4	5	6	7
	4 Sakleshpur <b>Sakleshpur sub-dn</b>	1,034 <b>2,986</b>	124,753 <b>556,802</b>	224 <b>1,095</b>	3 <b>68</b>	5 <b>19</b>
	<b>Hassan District</b>	<b>6,814</b>	<b>1,569,684</b>	<b>2,369</b>	<b>183</b>	<b>38</b>
Kodagu	1 Somwarpet 2 Virajpet 3 Madikeri <b>Madikeri sub-dn</b>	999 1,646 1,449 <b>4,102</b>	182,526 178,511 127,418 <b>488,455</b>	130 94 67 <b>291</b>	5 0 0 <b>5</b>	6 6 4 <b>16</b>
	<b>Kodagu District</b>	<b>4,102</b>	<b>488,455</b>	<b>291</b>	<b>5</b>	<b>16</b>
Mandya	1 Maddur 2 Malavalli 3 Mandya <b>Mandya sub-dn</b> 1 Krishnarajpet 2 Nagamangala 3 Pandavapur 4 Shrirangapattana <b>Pandavapura sub-dn</b>	618 810 716 <b>2,144</b> 904 1,045 539 354 <b>2,842</b>	282,726 264,075 383,030 <b>929,831</b> 221,103 178,663 168,036 146,741 <b>714,543</b>	153 172 174 <b>499</b> 296 343 140 87 <b>866</b>	7 14 9 <b>30</b> 20 23 31 9 <b>83</b>	4 4 5 <b>13</b> 6 5 3 4 <b>18</b>
	<b>Mandya District</b>	<b>4,961</b>	<b>1,644,374</b>	<b>1,365</b>	<b>113</b>	<b>31</b>
Mysore	1 Mysore 2 Nanjangud 3 T. Narasipur <b>Mysore sub-dn</b> 1 Heggadadevanakote 2 Hunsur 3 Krishnarajanagar 4 Periyapatna <b>Hunsur sub-dn</b>	816 982 599 <b>1,798</b> 1,618 879 605 815 <b>3,917</b>	854,499 324,198 258,112 <b>1,436,809</b> 216,399 222,173 217,370 188,902 <b>844,844</b>	128 176 123 <b>427</b> 241 188 151 196 <b>776</b>	16 12 9 <b>37</b> 40 22 25 5 <b>92</b>	4 5 5 <b>14</b> 5 4 6 4 <b>19</b>
	<b>Mysore District</b>	<b>6,269</b>	<b>2,281,653</b>	<b>1,203</b>	<b>129</b>	<b>33</b>
Udupi	1 Kundapura 2 Karkala 3 Udupi <b>Kundapura sub-dn</b>	1,560 1,367 925 <b>3,598</b>	351,673 279,005 495,766 <b>1,126,444</b>	95 76 99 <b>270</b>	0 0 0 <b>0</b>	3 3 4 <b>10</b>
	<b>Udupi District</b>	<b>3,598</b>	<b>1,126,444</b>	<b>270</b>	<b>0</b>	<b>10</b>
	<b>Mysore Dn</b>	<b>43,474</b>	<b>10,579,078</b>	<b>7,310</b>	<b>588</b>	<b>192</b>
	<b>STATE TOTAL</b>	<b>191,791</b>	<b>44,977,201</b>	<b>27,066</b>	<b>2,127</b>	<b>752</b>

Table No 1.2 : Area and population by States : 1991 Census

Sl. No.	State Territory	Area (1) (‘00 sq. km)	Total Population (‘000’S)	Density per sq.km.	Sex ratio (females per ‘000 Males)
1	2	3	4	5	6
1.	Andhra Pradesh	2,750	66,508	242	972
2.	Arunachal Pradesh	837	864	10	859
3.	Assam	784	22,414	286	923
4.	Bihar	1,739	86,374	497	911
5.	Chhattisgarh*	1,351	176	-	-
6.	Goa	37	1,170	316	967
7.	Gujarat	1,960	41,310	211	934
8.	Haryana	442	16,464	372	865
9.	Himachal Pradesh	557	5,171	93	976
10.	Jammu & Kashmir	2,222 (2)	7,719	NA	923
11.	Jharkhand*	797	21,800	-	-
12.	Karnataka	1,918	44,977	235	960
13.	Kerala	389	29,098	749	1,036
14.	Madhya Pradesh	4,434	66,181	49	931
15.	Maharashtra	3,077	78,937	257	934
16.	Manipur	223	1,837	82	958
17.	Meghalaya	224	1,775	79	955
18.	Mizoram	211	690	33	921
19.	Nagaland	166	1,209	73	886
20.	Orissa	1,557	31,660	203	971
21.	Punjab	504	20,282	403	882
22.	Rajasthan	3,422	44,006	129	910
23.	Sikkim	71	406	57	878
24.	Tamilnadu	1,301	55,859	429	974
25.	Tripura	105	2,757	263	945
26.	Uttaranchal*	558	7,045	-	-
27.	Uttar Pradesh	2,944	1,39,112	473	879
28.	West Bengal	888	68,078	767	917
<b>Union Territories</b>					
1.	Andaman & Nicobar Islands	82	281	34	818
2.	Chandigarh	1	642	5,632	790
3.	Dadra & Nagar Haveli	5	138	282	952
4.	Daman & Diu	1	102	907	969
5.	Delhi	15	9,421	6,352	827
6.	Lakshadweep	Neg	52	1,616	943
7.	Pandicherry	5	808	1,642	979
<b>INDIA</b>		<b>32,873</b>	<b>8,46,302</b>	<b>273*</b>	<b>927</b>

Note: 1. The area figures are based on the publication 1992 India in Figure's issued by Central Statistical Organisation.

2. Includes 78,114 sq km under illegal occupaton of Pakistan and 5,180 sq km illegally handed over by Pakistan to China and 37,555 sq km under illegal occupation of China.

\* excludes Jammu & Kashmir; NA= Not Available; Neg= Negligible

\* These newly created states' total area and roughly estimated total population is given. Area and population of their original states given here includes the area and populations of the new states. Source Manorama year book 2001.

### Physiography

Physiographically Karnataka State forms part of two well defined macro regions of Indian Union ; the Deccan Plateau and the Coastal plains and Islands. The State has four physiographic regions as follows:

- 1) Northern Karnataka Plateau : Northern Karnataka Plateau comprises of the districts of Belgaum, Bidar, Bijapur, Bagalkot and Gulbarga. It is largely composed of Deccan Trap. It represents a monotonous treeless extensive plateau landscape with a general elevation of 300 to 600 metres from the mean sea level. However the river plains of the Krishna, the Bhima, the Ghataprabha and the Malaprabha with the intervening watersheds, the steplike landscapes, lateritic scarpments, residual hills and ridges break the monotony of this extensive plateau. The general slope is towards east and this region is largely covered with rich black cotton soils.
- 2) Central Karnataka Plateau : Central Karnataka Plateau covers the districts of Bellary, Chikmagalur, Chitradurga, Davanagere, Dharwad, Gadag, Haveri Raichur, Koppal and Shimoga. The region represents the transitional surface between the Northern Karnataka Plateau of Deccan Trap and Southern Karnataka Plateau with relatively higher surface. By and large, this region represents the area of Tungabhadra basin. The general elevation varies between 450 and 700 metres. However, this transitional ground is broken by several sets of parallel ridges mainly made up of Dharwar system of rocks. The height of such residual hills is about 900 metres above mean sea level. The general slope of this region is towards the east.
- 3) Southern Karnataka Plateau : The Southern Karnataka Plateau covers the districts of Bangalore, Bangalore Rural, Hassan, Kodagu, Kolar, Mandya, Mysore, Chamarajanagar and Tumkur. This region largely covers the area of the Cauvery river basin lying in Karnataka. It is bounded by 600 metres contour and is characterised by a higher degree of slope. In the west and south it is enclosed by the ranges of Western Ghats and the northern part is an interrupted but clearly identifiable high plateau. In the east the valleys of the Cauvery and its tributaries open out to form undulating plains. The general elevation of the region varies from 600 to 900 metres. However residual heights of 1,500 to 1,750 metres are found in the Biligirirangan hills of Mysore Dt. and the Brahmagiri range of Kodagu Dt.
- 4) Karnataka Coastal Region : The Karnataka Coastal Region, which extends between the Western Ghats edge of the Karnataka Plateau in the east and the Arabian Sea in the west, covers Dakshina Kannada, Udupi and Uttara Kannada districts. This region is traversed by several ridges and spurs of Western Ghats. It has difficult terrain full of rivers, creeks, water falls, peaks and ranges of hills. The coastal region consists of two broad physical units, the plains and the Western Ghats. The Coastal plains, represent a narrow stretch of estuarine and marine plains. The abrupt rise at the eastern flanks forms the Western Ghats. The northern parts of the Ghats are of lower elevation (450-600 metres) as compared to Southern parts (900 to 1,500 metres). The Coastal belt with an average width of 50 to 80 km covers a distance of about 267

km. From north to south. At certain places the crest of adjoining Western Ghats reach the sea as close as 13 km near Karwar. The average height is generally 75 metres from the mean sea level.

### Topography

Karnataka has representatives of all types of variations in topography – high mountains, plateaus, residual hills and coastal plains. The State is enclosed by chains of mountains to its west, east and south. It consists mainly of plateau which has higher elevation of 600 to 900 metres above mean sea level. The entire landscape is undulating broken up by mountains and deep ravines. Plain land of elevation less than 300 metres above mean sea level is to be found only in the narrow coastal belt, facing the Arabian Sea. There are quite a few high peaks both in Western and Eastern Ghat systems with altitudes more than 1,500 metres. A series of cross-sections drawn from west to east across the Western Ghat generally exhibit, a narrow coastal plain followed to the east by small and short plateaus at different altitudes, then suddenly rising upto great heights. Then follows the gentle east and east-north-west sloping plateau. Among the tallest peaks of Karnataka are the Mullayyana Giri (1,925 m), Bababudangiri (Chandradrona Parvata 1,894 m) and the Kudremukh (1,895 m) all in Chikmagalur Dt. and the Pushpagiri (1,908 m) in Kodagu Dt. There are a dozen peaks which rise above the height of 1,500 metres. The percentage of area coming under different elevations is as follows: less than 150 metres-5.16; 150 to 300 metres-1.95; 300 to 600 metres-43.51; 600 to 1,350 metres-48.81 and more than 1,350 metres-0.57.

### Geology

The geological history of Karnataka is largely confined to the two oldest eras – the Archaean and the Proterozoic. The substantial part of North Karnataka is covered by Deccan Trap. The bulk of the rocks of Karnataka are Archaean in age.

*Ancient supracrustals* are the oldest rocks dated so far in Karnataka. They are a group of grey gneisses giving an age of 3,400 million years. They are also described as belonging to Sargur schists.

*Auriferous Schist Belts* (Kolar type) are next in order of age and are a series of basic igneous rocks. They are well developed in the eastern part of the State. Older Gneissic complex consist of an extensive group of grey gneisses (3,400 to 3,000 million years) and act as the basement for an extensive belt of schists. *Younger Gneiss complex* consist of a group of gneissic rocks mostly of granodioritic and granitic composition. They are found in the eastern parts of the State and range in age from 2,700 to 2,000 million years.

*Younger Schist Belts* (Dharwar type) are the prominent schistose rocks. They are Archaean in age and belong to the age group of 2,900 to 2,600 million years. Two main divisions in this super group are Bababudan and Chitradurga. Ranebennur group is presently classified as the top most formation within Chitradurga group.

*Younger (Closepet) Granites* extends in north-south directions as a narrow belt 50 km. Wide. This is a complex of coarse to medium pink and grey granites. Isolated masses of granites like those of Chitradurga, Arasikere, and Banavara belong to the same age group

as the younger Granites (2,600 million years). *Charnockites* are a group of Pyroxene bearing granulites and they are not regarded as separate intrusions and are located in the southern parts of the State.

The close of the Archaean is marked by a period of dyke formation. The majority of the dykes are younger than 2,400 million years. They are of doleritic composition. Besides dolorites, a number of alkaline dyke intrusives have been described in the southern part of Karnataka.

The elevation of the *Kaladgi* and *Bhima* Group of sediments to form the landmass of peninsular India marked the end of Proterozoic era. The *Kaladgi* sediments are separated from the underlying schistose and granitic rocks of Archean age by a profound unconformity – *the Great Eparchaeon unconformity*. The Peninsula of India, of which Karnataka form a part, was not subjected to any major changes after the proterozoic.

There is a big gap in the geological history of Karnataka after the close of *Bhima* period. For another 500 million years, there is no evidence of any major disturbance till the end of the cretaceous. The next major event is the tremendous burst of volcanic activity. Most parts of northern Karnataka are covered over by the Deccan traps. The western margin close to the coast was affected by large scale dyke intrusion. The dykes assigned an age around 65 million years connect them with the commencement of Deccan Volcanic activity.

The cappings of laterite are found over the Deccan Traps and most spectacular development of laterites is seen around Bidar. Greater part of north Karnataka is covered by black soil and it covers all types of rocks – Deccan traps, gneisses, schists and even laterite. Rivers flowing through the Deccan Trap area show thick accumulation of transported black soils within their valleys.

The geological history of Karnataka Craton thus extends to the remote and hoary past. It displays an unequalled spread of events from the oldest Archaean to the present. Lithological and tectonic diversity, a near comprehensive pre-cambrian record and for the most part magnificent exposures have made Karnataka unique in the study of Precambrian geology.

### **Mineral Resources**

Karnataka is endowed with fairly rich mineral wealth distributed more or less evenly over its territory. It has one of the oldest Geological Survey Department in the Country, started as far back as 1880. The State contains deposits of asbestos, bauxite, chromite, dolomite, gold, iron ore, kaolin, limestone, magnesite, manganese, ochre, quartz and silica sand. Karnataka is the sole producer of feldspar and leading producer of gold (84%), moulding sand (63%) and fuchsite quartzite (57%). But now gold deposits have been mostly exhausted.

## Production of Minerals in Karnataka.

		Unit	1995-96	1996-97
<b>I. Metallic</b>				
a) Ferrous	1. Chromite	'000 MT	59	44
	2. Iron ore	'000 MT	12,395	11,261
b) Non-Ferrous	3. Manganese ore	'000 MT	402	369
	4. Bauxite	'000 MT	32	24
	5. Copper	'000 MT	41	-
	6. Gold	Kg.	1,425	1,846
	7. Silver	Kg.	126	173
<b>II. Non-Metallic</b>				
	8. Asbestos	Tonnes	-	-
	9. Fireclay	Tonnes	13,924	10,709
	10. Kaolin	Tonnes	14,804	14,794
	11. Kyanite	Tonnes	851	1,041
	12. Magnesite	Tonnes	26,619	31,419
	13. Ochre	Tonnes	9,366	18,073
	14. Quartz	Tonnes	14,873	31,372
	15. Steatite	Tonnes	392	671
<b>III. Building Materials</b>				
	16. Dolomite	Tonnes	39,066	50,742
	17. Lime Sheel	Tonnes	37,632	28,785
	18. Lime Stone	Tonnes	8,362	8,773

Source : Indian Bureau of mines, Nagpur.

Karnataka is the major gold producing State in the Country, with the two major mines located in the districts of Kolar and Raichur. The gold mines at Kolar and Hutti are producing about 2,000 kg of gold per annum. There are vast deposits of iron ore in different parts of the State. The iron ores of Bellary-Hospet region are considered to be one of the world's best iron ores. The total reserve of the high grade iron ore available in the State is of the order of 1,000 million tonnes. The Sandur Manganese and Iron Ores Ltd. produces the largest quantity of Manganese ore, about 2,30,000 tonnes from its mines in Sandur area of Bellary Dt. Kudremukh Iron Ore Co. are engaged in mining iron ore in Western Ghats. Mysore Minerals and Trading Corporation is also active.

About 4,200 sq.km of granite and granitic rocks area contains granites of ornamental quality in the State. Most of the ornamental granites are found in Mysore, Chamarajanagar, Bangalore, Mandya, Tumkur, Kolar, Chitradurga, Davanagere, Bellary, Raichur, Koppal, Bagalkot and Bijapur districts.

### Water Resources

Karnataka accounts for about six per cent of the Country's surface water resources of 17 lakh million cubic metres (Mcum). About 40 per cent of this is available in the east flowing rivers and the remaining from west flowing rivers.

There are seven river basins which with their tributaries drain the State. The names of river system and the area drained by them are as follows:



No.	River System	Drainage area in the State		Estimated average yield		
		'000 Sq. Km	%	Mcum	TMC	%
1.	Krishna	111.74	58.66	27,451	969.44	28.20
2.	Cauvery	36.13	18.97	10,980	387.76	11.28
3.	Godavari	4.43	2.32	1,415	49.97	1.45
4.	West Flowing rivers	24.53	12.88	56,600	1,998.83	58.14
5.	North Pennar	6.94	3.64	906	32	0.93
6.	South Pennar	3.76	1.97			
7.	Palar	2.97	1.56			
		190.50	100	97,352	3,438.00	100

### Krishna Basin

About 43.74 per cent of the Krishna basin lies in the State. The rivers course for 483 km lies in the State. The Tungabhadra which has a drainage area of 66,237 sq. km is the largest and the important of the Krishna's tributaries. Its major tributaries are the Bhima, Koyna, Panchaganga, Dudhaganga, Tungabhadra, Hiranyakeshi, Ghataprabha and the Malaprabha. This basin covers 18 districts and about 60 per cent of the geographical area of the State.

*The Krishna* : The river Krishna rises in the Western Ghats, at an altitude of 1,336 metres near Mahabaleshwar in Maharashtra, flows from west to east for a length of about 1,400 km, through Maharashtra, Karnataka and Andhra Pradesh. The Krishna has a drainage area of about 2.59 lakh sq km. Together with its tributaries, it flows for about 704 km length in the State.

*The Ghataprabha* : The Ghataprabha river rises in the Western Ghats, at an altitude of 884 metres and flows eastwards for a length of 283 km before joining the Krishna. The river debouches by 53 metres at Gokak Falls in Belgaum Dt. The total catchment area of the river and its tributaries accounts for 8,829 sq.km in Maharashtra and Karnataka States.

*The Malaprabha* : The river Malaprabha also rises in Western Ghats at an altitude of 792 metres in Belgaum Dt. The river flows first in easterly and then in north-easterly directions and joins the Krishna at Kudalasangama, about 304 km from its source. The principal tributaries are the Bennihalla, Hirehalla and the Tas Nadi. The total catchment area of the Malaprabha and its tributaries is 11,549 sq. km., wholly in Karnataka.

*The Bhima* : The Bhima river also rises in Western Ghats, at an altitude of about 945 metres and flows south-east wards through Maharashtra and Karnataka. It flows for 861 km before joining the Krishna near Kudlu in Raichur taluk. The latter 298 km of the Bhima's course is in the State. It has a drainage area of 70,614 sq. km out of which 18,315 sq. km lies in Karnataka.

*The Tungabhadra* : The Tungabhadra is formed north of Shimoga at an elevation of about 610 metres by the union of twin rivers, the Tunga and the Bhadra, which rise together in the Western Ghats at an elevation of about 1,198 metres. The Varada and the Hagari are its important tributaries. It has a drainage area of 71,417 sq.km out of which 57,671 sq. km lies in the State. It flows for a distance of 293 km. In the State.

### **Cauvery Basin**

About 42.2 per cent of the area of the Cauvery basin (81,155 sq. km) lies in Karnataka. This basin covers 18 per cent of the State area comprising eight districts. Its major tributaries in Karnataka are the Hemavati, Lakshmanatirtha, Harangi, Kabini, Suvarnavati, Lokapavani, Shimsha and the Arkavati.

*The Cauvery* : The river Cauvery has its origin in the Western Ghats in Kodagu Dt. It flows for a length of 320 km in the State. The river flows generally in a south-east direction. The Chunchanakatte Falls (about 20 m) and the Shivasamudra Falls (about 100 m) exist in the State.

*The Hemavati* : The river Hemavati rises in the Western Ghats at an elevation of about 1,219 metres and joins the river Cauvery near Krishnarajasagar. The drainage area is about 5,410 sq.km and the approximate length of the river is 245 km.

*The Kabini* : The river Kabini has a total course of about 230 km and a catchment area of about 7,040 sq.km. It joins the Cauvery river at Tirumakudal Narasipur.

### **Godavari Basin**

Godavari basin has a drainage area of 4,405 sq.km. Only a small part of Godavari basin lies in the State. The river Manjra is the major tributary of the Godavari and it flows for about 155 km in the State.

### **Pennar and Palar Basins**

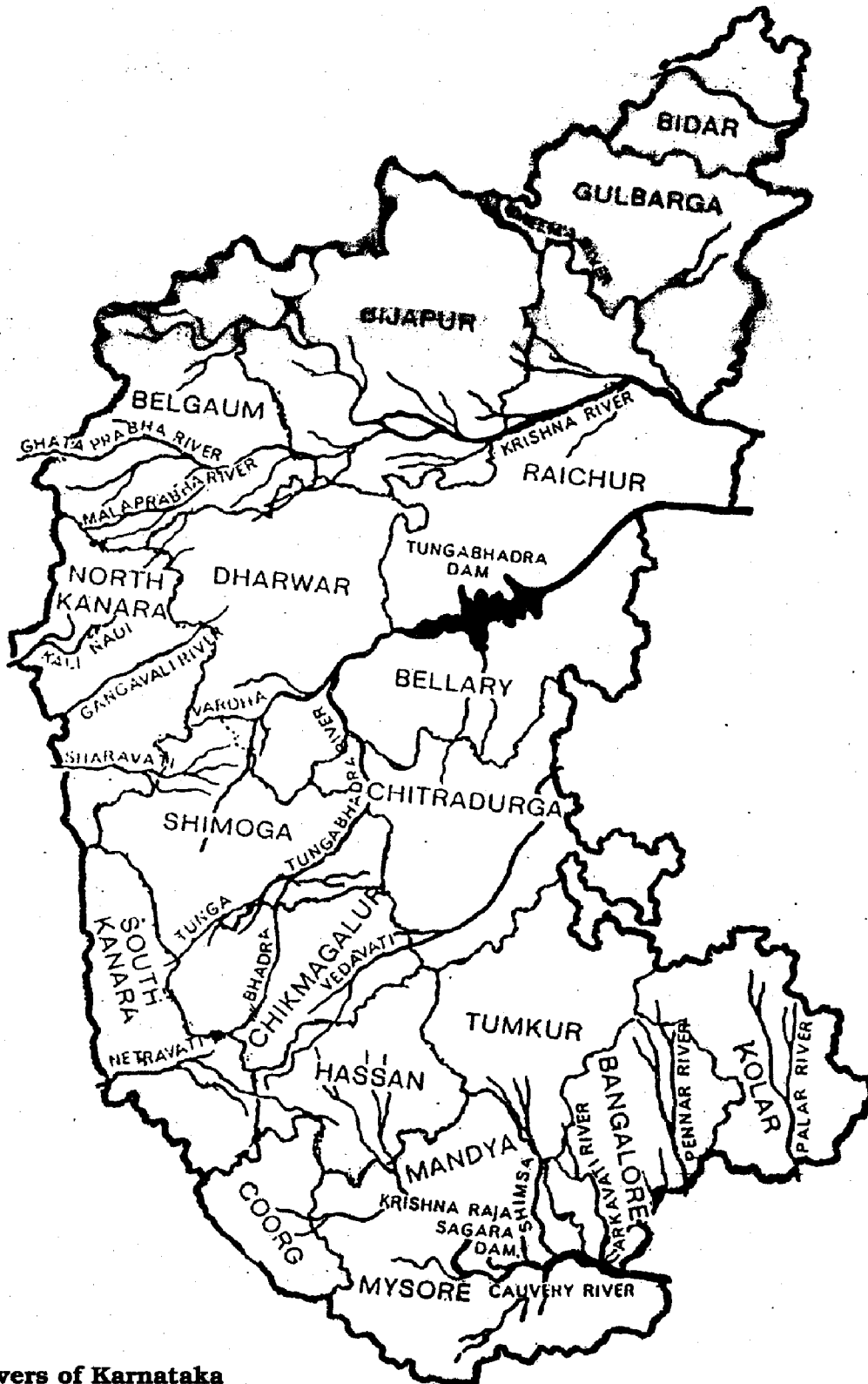
The North Pennar, South Pennar and the Palar rivers drain about 13,610 sq.km in the State.

*West flowing Rivers* : There are numerous west flowing rivers, chief among which are the Sharavati, Kali, Gangavati (Bedti), Aghanashini and the Netravati. The total catchment area of all west flowing rivers is 26,214 sq.km. They are mostly harnessed for power generation.

### **Ground Water Resources**

Traditionally, groundwater in the State has been exploited by open dug wells, constructed in the weathered mantle. After fast drilling rigs became available, borewells have been drilled extensively, tapping the water stored in rock fissures and fractures.

The water stored in the fractures and fissures ultimately comes from rainfall infiltrating through the weathered mantle. The ground water in the weathered mantle flows in the direction of the slope of the underlying fresh rock. Groundwater tends to accumulate in the valley areas and to drain from ridge areas. If the extraction exceeds recharge, ground water is said to be mined. Mining cannot be sustained for long as it empties the ground water store.



Rivers of Karnataka

Drainage in Karnataka

About 4.4% of India's ground water resources (2.7 lakh mcum) lies in Karnataka. The total annual recharge of ground water estimated in the State is about 17,99,591 hectare metres (ham). Net annual utilisation is estimated at 5,76,921 ham as on 31-3-1991. In the Malnad region, the annual recharge is estimated to be 10% of the annual rainfall. In the region where the rainfall is less than 700 mm, the evapotranspiration is also high, and the re-charge is less than 5%, for the rest of the State, the recharge is estimated to be between 5% and 10%. As per Minor Irrigation Census 1986-87, there were more than 3.5 lakh open dug wells in the State. The depth to water level in these wells from the surface ranges between 2 to 3.5 metres in valley regions and in some places the depth goes even upto 18 metres. A large majority of the wells dry up in summer. Nearly half of the open wells are in a poor state of maintenance.

There were 38,899 shallow and 6,673 deep tube wells as per the above Census. During recent years, borewells are increasingly coming into prominence. These are generally 150 mm in diameter and drilled to depth ranging from 30 to 60 metres. The average yield ranges from 60 to 80 litres per minute. In Kolar, Bagalkot and Bijapur districts nearly all the available surplus ground water has been exploited. During 1993-94, there were 1,64,728 borewells, 4,70,981 wells used for irrigation purpose, 3,03,698 wells used for domestic purpose and 74,730 wells were not in use.

#### **Climate.**

The State enjoys three main types of climates. For meteorological purposes, the State has been divided into three sub-divisions namely (a) Coastal Karnataka (Dakshina Kannada, Udupi and Uttara Kannada districts), (b) North Interior Karnataka (Belgaum, Bidar, Bijapur, Bagalkot, Dharwad, Gadag, Haveri, Gulbarga, Raichur and Koppal districts) and (c) South Interior Karnataka (the remaining districts of Bangalore Rural, Bangalore, Bellary, Chikmagalur, Chitradurga, Davanagere, Kodagu, Hassan, Kolar, Mysore, Chamarajnar, Mandya, Shimoga and Tumkur districts). The Tropical Monsoon climate covers the entire coastal belt and adjoining areas. The climate in this region is hot with excessive rainfall during the monsoon season i.e., June to September. The Southern half of the State experiences hot, seasonally dry tropical savana climate while most of the northern half experiences hot, semi-arid, tropical steppe type of climate.

The climate of the State varies with the seasons. The winter season from January to February is followed by summer season from March to May. The period from October to December forms the post-monsoon season.

The period from October to March, covering the post-monsoon and winter seasons, is generally pleasant over the entire State except during a few spells of rain associated with north-east monsoon which affects the south-eastern parts of the State during October to December. The months April and May are hot, very dry and generally uncomfortable. Weather tends to be oppressive during June due to high humidity and temperature. The next three months (July, August and September) are some what comfortable due to reduced day temperature although the humidities continue to be very high.

**Temperature :** Both day and night temperatures are more or less uniform over the State, except at the coastal region and high elevated plateau. They generally decrease south-westwards over the State due to higher elevation and attain lower values at high level stations.

April and May are the hottest months. In May, mean maximum temperature shoots upto 40°C over the north-eastern corner of the State, decreasing south-westwards toward the Western Ghat region and the Coastal belt. The highest temperature recorded at an individual station in the State is 45.6° C at Raichur on 1928 May 23 which is 6° higher than the normal for the warmest months. December and January are the coldest months. The lowest temperature at an individual station was 2.8°C on 1918 December 16 at Bidar.

Sub-Division	Mean daily temperature°C	
	Maximum	Minimum
<b>Interior Karnataka</b>		
a. North	32.0	20.4
b. South	29.7	19.2
<b>Coastal Karnataka</b>	30.7	23.3

### Rainfall

The annual rainfall in the State varies roughly from 50 to 350 cm. In the districts of Bijapur, Bagalkot, Raichur, Koppal, Bellary and southern half of Gulbarga, the rainfall is lowest varying from 50 to 60 cm. The rainfall increases significantly in the western part of the State and reaches its maximum over the coastal belt. The south-west monsoon is the principal rainy season during which the State receives 80% of its rainfall. Rainfall in the winter season (January to February) is less than one per cent of the annual total, in the hot weather season (March to May) about 7% and in the post-monsoon season about 12%.

South-west monsoon normally sets in over the extreme southern parts of the State by about 1<sup>st</sup> of June and covers the entire State by about 10<sup>th</sup> of June. The rainy months July and August account individually to about 30% and 18% of annual rainfall. There are about 26 rainy days (with daily rainfall of atleast 2.5 mm) in Coastal Karnataka and 8 to 11 days in interior Karnataka in each of these months. The withdrawal of the south-west monsoon begins from the northern parts of the State around 2<sup>nd</sup> week of October and by the 15<sup>th</sup> October monsoon withdraws from the entire State.

The retreating monsoon current i.e. the north-east monsoon (October to December) effects the eastern parts of South Interior Karnataka and accounts for about 30% of rainfall in this region during the above period.

Out of the 14 heavy rainfall stations in India, with annual rainfall of more than 500 cm., four stations are situated in Karnataka. They are Agumbe in Tirthahalli taluk of Shimoga Dt. (annual rainfall-828 cm) and Bhagamandala (603 cm), Pullingoth (594 cm) and Makut (505 cm) in Kodagu Dt. Agumbe can be called as the Chirapunji of Southern India. District-wise monthly, seasonal and annual rainfall (mm) for taluk headquarters (1901-1970) is given in Page No. 26 & 27.

## Fauna

The State of Karnataka has a rich heritage of *flora* and *fauna*. The hill chain of Western Ghats is the only part of the State to retain some semblance of its natural biological heritage. This last refuge of the native *fauna* is subjected to rapid decimation with the coming up of several hydro-electric and irrigation projects, mining, the accelerated pace of forest exploitation and the increasing demand of land for plantation and crop husbandry. The area under forests in Karnataka today amounts to 38.72 lakh hectares i.e. 20 per cent of the total land area of the State. With the notable exception of Bonnet Macaque, which is under widespread religious protection throughout the State, the larger wild mammals are almost confined to the forest areas.

The wildlife bearing forest areas of Karnataka are divided into six regions viz, Coastal region, crestline of the Western Ghats, Malnad, Old Mysore Plateau, Kollegal hills and the Maidan. The natural distribution of animals is largely determined by vegetation.

*Region-I - Coastal Region* : The district of Uttara Kannada and parts of Belgaum constitute the northern-most sector of the hill tracts of Karnataka. These hilly tracts have vegetation ranging from evergreen to dry deciduous types. Due to Kalinadi hydro-electric project and a great deal of Iron and Manganese ore mining, the habitat is highly fragmented and the forest cover is greatly disturbed. In this region, as per observed data, the gaur are scattered, sambar are much more widely distributed. Wild pig is most abundant and spotted deer is seen in majority of areas. Elephants are found scattered over a wide region. The Carnivores-tiger, panther and wild dog occur in low populations. This region was extremely rich in wild life in the past especially tiger and gaur.

*Region II - Crestline of Western Ghats*: This region lies south of Uttar Kannada. There is a narrow belt of forest following this crestline of Ghats. The vegetation ranges from evergreen to moist deciduous. Most of the major animals occur in this region but their population on the whole is very poor. Only a few isolated herds of elephants are found here. The gaur and sambar are frequently seen while the spotted deer occurs sporadically. Barking deer and sloth bear are also reported to be present. Wild pig is omnipresent. The Canivores - tiger, panther and wild dog are present but their occurrence rating is very low. This region is a poor habitat for most large herbivores and consequently for carnivores.

*Region III - Malnad* : This is characterised by dry and moist deciduous vegetation. The area is marked by conspicuous hills like the Bababudangiri range. This region has one of the best wildlife concentrations only second to Mysore plateau in the State, harbouring populations of elephants, gaur, sambar, spotted deer, wild pig etc. The anthropogenic pressures over this area are much less and hence the wildlife is somewhat less molested. The presence of perennial rivers, reservoirs and plenty of bamboos, grass and other fodder species with a moderate rainfall makes this region an ideal habitat for elephants.

*Region IV - Mysore plateau* : The western edge of Mysore Plateau, flanked on three sides by the southern-most ranges of the Sahyadris, Nilgiris and eastern spur of hills towards the Biligirirangan Hills, is an undulating plain and is covered by moist and dry deciduous forests. This area has the richest wildlife concentrations in South India, harbouring large herds of elephants, spotted deer, wild pig, wild dog, sloth bear, gaur, sambar and occasionally tiger and cats.

**District-wise Monthly and Seasonal Normal Rainfall in mm  
in Karnataka (1901 to 1970)**

Name of the District	No. of Taluks	Jan	Feb	Mar	April	May	Premon	Jun
Bangalore	3	4.70	7.70	7.50	41.90	115.90	177.70	68.90
Bangalore Rural	8	4.30	6.00	8.10	42.10	107.40	167.80	68.20
Chitradurga	6	3.20	4.10	4.60	21.30	62.70	95.90	48.50
Davanagere	6	2.40	3.50	8.40	34.70	78.00	127.00	65.90
Kolar	11	6.90	5.80	8.90	33.30	80.10	135.10	61.10
Shimoga	7	1.60	1.70	8.20	44.00	88.80	144.30	310.50
Tumkur	10	3.10	4.10	6.10	29.60	80.90	123.80	60.60
<b>Bangalore Division</b>	<b>51</b>	<b>3.74</b>	<b>4.70</b>	<b>7.40</b>	<b>35.27</b>	<b>87.69</b>	<b>138.80</b>	<b>97.67</b>
Bagalkot	6	2.10	2.70	5.10	23.90	48.00	81.90	65.10
Belgaum	10	2.00	1.60	7.60	33.20	65.00	109.40	104.60
Bijapur	5	2.90	4.00	6.10	18.70	35.80	67.50	79.40
Dharwad	5	0.80	3.20	7.00	45.20	84.80	140.90	95.20
Gadag	5	1.60	2.40	4.10	34.80	71.40	114.30	69.60
Haveri	7	1.70	1.60	4.60	39.60	77.40	124.90	95.70
Uttara Kannada	11	1.20	1.10	4.10	28.20	103.10	137.60	680.30
<b>Belgaum Division</b>	<b>49</b>	<b>1.76</b>	<b>2.37</b>	<b>5.51</b>	<b>31.94</b>	<b>69.36</b>	<b>110.93</b>	<b>169.99</b>
Bellary	7	1.80	3.20	3.70	27.40	64.60	100.70	65.70
Bidar	5	3.30	5.50	10.70	21.80	23.60	64.80	132.30
Gulbarga	10	2.70	3.90	9.60	18.60	33.00	67.80	108.30
Koppal	4	0.90	0.40	1.90	22.90	50.30	76.30	61.60
Raichur	5	1.00	1.70	5.50	17.20	34.40	59.90	75.50
<b>Gulbarga Division</b>	<b>31</b>	<b>1.94</b>	<b>2.94</b>	<b>6.28</b>	<b>21.58</b>	<b>41.18</b>	<b>73.90</b>	<b>88.68</b>
Chamarajanagar	4	4.40	4.50	11.20	66.10	139.80	225.90	47.50
Chikmagalur	7	3.10	3.50	9.20	55.40	102.00	173.20	300.50
Dakshina Kannada	5	4.80	2.50	10.40	47.20	172.20	237.10	940.40
Hassan	8	3.80	4.50	8.30	57.60	112.00	186.00	119.60
Kodagu	3	5.00	5.60	14.70	73.50	146.70	245.50	486.00
Mandya	7	2.20	4.50	8.00	49.20	116.10	180.00	42.20
Mysore	7	3.50	5.50	12.50	65.90	138.70	226.20	65.20
Udupi	3	3.50	1.80	5.10	37.00	169.70	217.10	1055.00
<b>Mysore Division</b>	<b>44</b>	<b>3.79</b>	<b>4.05</b>	<b>9.93</b>	<b>56.49</b>	<b>137.15</b>	<b>211.38</b>	<b>382.05</b>
<b>State</b>	<b>175</b>	<b>2.81</b>	<b>3.52</b>	<b>7.28</b>	<b>36.32</b>	<b>83.84</b>	<b>133.75</b>	<b>184.60</b>

(Continued)

Jul	Aug	Sep	SWMON	Oct	Nov	Dec	NEMON	ANNUAL
99.40	122.70	148.70	439.60	168.20	64.30	16.90	249.40	866.80
84.00	111.90	151.20	415.30	157.50	62.60	13.40	233.50	816.60
62.90	67.60	99.40	278.30	123.90	45.80	11.80	181.50	555.70
97.50	79.90	86.70	329.90	119.90	42.40	10.00	172.30	629.10
81.00	100.00	145.60	387.80	135.80	68.20	16.50	220.60	743.50
686.40	352.60	134.30	1483.80	148.40	45.10	10.10	203.60	1,831.70
68.90	85.00	127.70	342.20	142.00	56.00	10.20	208.10	674.20
<b>168.59</b>	<b>131.39</b>	<b>127.66</b>	<b>525.27</b>	<b>142.24</b>	<b>54.91</b>	<b>12.70</b>	<b>209.86</b>	<b>873.94</b>
72.50	67.40	140.70	345.70	92.80	33.50	7.70	134.00	561.60
206.20	121.40	109.00	541.20	111.90	38.10	8.80	158.80	809.40
79.70	78.20	162.70	400.00	83.70	30.20	8.10	122.00	589.60
151.80	99.80	112.30	459.00	119.60	42.20	9.80	171.60	771.50
68.40	69.80	128.20	336.00	116.30	36.70	9.00	162.00	612.30
172.40	103.30	85.60	457.00	122.20	38.80	10.80	171.80	753.70
1,007.60	555.40	250.20	2,493.40	148.00	48.80	12.10	209.00	2,840.00
<b>251.23</b>	<b>156.47</b>	<b>141.24</b>	<b>718.90</b>	<b>113.50</b>	<b>38.33</b>	<b>9.47</b>	<b>161.31</b>	<b>991.16</b>
83.10	95.20	144.70	388.70	103.70	32.80	8.40	144.90	634.30
182.50	180.50	194.90	690.30	70.50	18.30	4.90	93.70	848.80
161.20	144.80	192.40	606.70	80.90	16.10	5.20	102.10	776.50
82.60	87.80	135.00	367.00	100.20	19.40	6.60	126.20	569.40
108.00	112.80	152.10	448.40	84.00	22.10	6.70	112.80	621.10
<b>123.48</b>	<b>124.22</b>	<b>163.82</b>	<b>500.22</b>	<b>87.86</b>	<b>21.74</b>	<b>6.36</b>	<b>115.94</b>	<b>690.02</b>
52.80	67.60	99.70	267.50	162.80	75.70	19.10	257.60	751.00
673.40	382.10	159.80	1,515.90	163.90	59.40	15.70	239.10	1,928.10
1,301.20	806.00	321.10	3,368.60	980.10	629.50	18.90	369.30	3,974.90
246.40	140.50	103.90	610.30	158.90	67.80	16.00	242.70	1,039.10
938.30	529.30	218.90	2,172.60	201.70	79.70	18.70	300.00	2,718.20
45.50	62.20	115.60	265.40	161.40	60.70	13.20	235.30	680.70
99.50	76.00	89.00	329.70	151.70	61.20	13.50	226.30	782.20
1,341.60	800.40	383.20	3,580.30	224.10	78.30	19.20	321.60	4,119.00
<b>587.34</b>	<b>358.01</b>	<b>186.40</b>	<b>1,513.79</b>	<b>275.58</b>	<b>139.04</b>	<b>16.79</b>	<b>273.99</b>	<b>1,999.15</b>
<b>282.66</b>	<b>192.52</b>	<b>154.78</b>	<b>814.54</b>	<b>154.79</b>	<b>63.51</b>	<b>11.33</b>	<b>190.27</b>	<b>1,138.57</b>

Source : Drought Monitoring Cell, Department of Science and Technology, Bangalore.

Note : MM. milli meters, PREMON = Pre Monsoon, SWMON= South West Monsoon,  
NEMON = North, East Monsoon



*Region V : Kollegal Hills* : This hilly area is an eastern spur of the Western Ghats. Apart from the moist deciduous or semi-evergreen forests on these hills, the rest of the region is covered by dry deciduous forest mostly degraded into scrub. Elephant, sambar, spotted deer and wild pig occur throughout this region. The wild dogs have fairly extensive distribution, though tiger, gaur and panther are much more restricted. Almost all the wild life species occur in this region in small numbers except elephants.

*Region VI - Maidan* : There is very little forest in the Maidan areas on the Deccan Plateau and whatever is left is in highly degraded form. Ranebennur is notable for the occurrence of good herds of black bucks. Wolves are becoming rare but have been reported from several places in this plains.

### Flora

Karnataka State has a rich and varied vegetation resulting from several lines of plant migration conditioned by climate, soil and topography. Biotic factors have in many areas modified the original climaxes evolved through the centuries.

Considering topography, bio-climate and soil, the vegetation of Karnataka could be grouped under the following four categories viz, 1) Littoral vegetation, 2) West coast tropical vegetation. 3) Upland deciduous vegetation and 4) Southern tropical montane vegetation.

*Littoral vegetation* : There are two types of littoral vegetation in Karnataka. The first is terrestrial on the sand dunes and the second, halophytic along estuaries. The limitations imposed by the scorching sun, shifting sands and salt-laden winds are overcome by special plants called psammophytes. The dunes above the tide mark are held down by a number of sand binders. Sundews and bladder worts often form a seasonal carpet on the wet sands of the rear beach.

Limited mangrove formations occur in the riverine estuaries where the salinity gradient rises rapidly towards the sea. The best examples of halophytic vegetation are near Kundapur and Gokarna. It is mostly of the *Rhizophora - Avicennia - Bruguiera* type. The trees and shrubs have to overcome the restrictions of a marshy saline habitat with strong tidal currents and fluctuations in water level as well as the asphyxiating conditions of a slushy soil.

These littoral plant formations have ecological role in the balance of nature. The psammophytes help in preventing the sand of the beaches from being blown landwards on to agricultural lands and human habitations. They also protect the beaches for their recreational value. Mangroves stabilise the river embankments against erosion. They afford breeding ground to several fishes and other marine animals.

*Moist Deciduous Coastal Vegetation* : The natural vegetation in this region immediately to the east of the coastline is of the secondary moist deciduous type. It is sometimes considered a degraded stage of an evergreen climax.

In the broader coastal low land of Dakshina Kannada, the *Hopea - Syzygium-Holigarna* series is usually found with dense understorey of shrubs like *Grewia*, *Ixora* and *Psychotria*. Lianas especially *Hugonia mystax* and *Uvaria narum* are frequent. The secondary moist

deciduous forests are better preserved towards the foothill of the Ghats. The biotic factor which is high in the vicinity of the Coastal urban centres is less towards the Ghats.

*West Coast Tropical Evergreens* : The lower slopes and valleys of the Ghats present fine examples of the West Coast tropical evergreen forests. These close canopy forests are nurtured by the heavy seasonal precipitation to form a climax vegetation. Erect buttressed trunks, unbranched for 20 or more metres fan out to meet the contiguous tree tops. There are several variations in the dominant canopy trees. The commonest association is of *Dipterocarpus - Kingiodendron-Vataria* between 70 to 600 metres above mean sea level. There are several other plant forms in these forests. The biological diversity and its spatial distribution within the forest apportions solar energy as effectively in the conversion of water and carbon-di-oxide into life sustaining organic compounds.

*Upland moist Deciduous Vegetation* : The decreasing rainfall on the leeward side of the mountain gives rise to another climax type - the upland moist deciduous vegetation. While in leaf, the canopy of these forests is dense, during the dry months there is a short period of leaf fall to avoid loss of water due to transpiration. Flowering of the trees occurs during the leafless period. This moist deciduous belt running from Belgaum to Kodagu is the habitat of the *Tectona - Dillenia - Lagerstroemia - Terminalia* series which include teak, *matti, kanagalu, nandi*, which are local names. Extensive areas on the eastern fringe of the Ghats were once covered with clumps of bamboos.

*Upland dry deciduous vegetation* : The bio climate of the eastern part of the Maidan permits a climax dry deciduous vegetation in several protected areas. The canopy is open and the trees leafless during the driest months. Flowering and fruiting are generally far advanced before the first flush of new leaves appears with the conventional showers in April-May.

*Upland thorn and scrub* : There are several parts of Chitradurga, Davanagere, Bellary, Raichur, Koppal, Gulbarga and Bidar districts where broad leaved deciduous forests give place to armed trees with tiny leaflets. Some remaining patches of these forests are made-up of *Acacia, Albizia* and *Hardwickia*. (*Jali, Bilwara, ennemara* being local names). The Maidan is dotted with numerous irrigation tanks usually supporting an interesting aquatic flora.

*Southern Tropical Montane Vegetation* : An altitudinal variation of the tropical evergreens, is found above 1,500 metres especially at Kudremukh, and in the Bababudan and Billigirirangan Hills. This vegetation of grassy meadows and low wooded patches forms the Southern Tropical Montane Vegetation. The grassy mountain meadows present a quick succession of herbs that appear in short lived profusion. A good part of the wet forests has been greatly altered by biotic factors.

The vegetation dynamics in Karnataka indicate several changes in the natural vegetation due to biotic factors especially human intervention. Inhabited coastal areas present a thick canopy of coconut trees. The climax formations of dry types of vegetation with a distinct canopy, an understorey of shrubs and a ground cover of herbs are confined to a few inaccessible pockets or to areas of reserved forests. Felling for fuel and grazing especially by goats threatened even these remnants of the original plant cover. The

forest unless covered is slowly converted into grasslands with scattered trees. In some areas forests have been cleared and low lying areas are converted into paddy fields while the hilly terrain is often planted with plantation crops.

### Forests

Karnataka State has a geographical area of 1,91,791 sq km of which 38,284 sq.km (19.96 per cent) is under the control of the Forest Department. The forests are classified as reserved (28,689.99 sq.km), protected (3,930.70 sq. km), unclassified (5,230.99 sq. km), village (124.2 sq.km) and private (308.42 sq. km) forests. The unclassified areas include C and D class lands which are mostly barren, transferred from the Revenue department. The percentage of forest area to geographical area in the State is less the all-India average of about 23%, and 33% prescribed in the National Forest policy. The area under forests in the neighbouring States is as follows : Andhra pradesh 62 lakh ha (9% of the total area of the Country), Maharashtra 54 lakh ha (8%), Tamilnadu 22 lakh ha (3%) and Kerala 11 lakh ha (2%).

The area under each category of forests and the estimated growing stock as in 1999-2000 are as follows:

Sl. No.	Type	Percentage of the total forest area.	Forest area under each type in '000 ha.	Growing Stock per ha. in M <sup>3</sup>	Growing stock in each type in millionM <sup>3</sup>
1.	Evergreen and Semi evergreen.	15.15	580	175	101.50
2.	Most deciduous	15.10	578	100	57.80
3.	Dry deciduous	18.99	727	50	36.35
4.	Scrub and Thorny	21.79	834	25	20.45
5.	Unwooded	28.97	1,109	-	-
	Total	100	3,828	-	216.1

About two lakh ha. of forest area is lost for non-forestry purposes since 1956 to 1986-87 and the details are as follows: For hydroelectric purposes : 22,194 ha, electricity lines 1,688 ha, roads: 330 ha, tanks - 35,840 ha, townships- 1,791 ha, mining -42,676 ha, agriculture - 67,217 ha, rehabilitation - 25, 820 ha, other purposes 6,357 ha and total 2,03,913 ha. The outturn of major forest produce for the year 1991-92 is as follows: 1) Timber - a) Rosewood 4,522 M<sup>3</sup>, b)Teak -3,376 M<sup>3</sup> c)Other kinds of timber - 41,253 M<sup>3</sup> 2)Pulpwood - 213 M<sup>3</sup> 4)Matchwood - 131 M<sup>3</sup>, 5)Sawn Timber - 618 M<sup>3</sup> 6) Timber in round pole - 32,067 M<sup>3</sup> 7)Firewood - 1,66,039 M<sup>3</sup>, 8)Bamboo - 19,299 M.T. and Sandalwood 1,418 M<sup>3</sup>.

Though 20% of the land area is classified as forests (3,86 million ha) in the State, only about 11% is well wooded. The remaining area is in different stages of degradation. The State is facing shortage of fuel wood, fodder and timber as the demand has increased considerably due to the increase in population of both human and cattle. The forests in the State are managed as per the prescriptions of the working plans which are prepared

for periods of 10 to 15 years after taking into consideration the type of forests, the condition of the existing crop, the demand for various forest produce and the requirements of the area for maintenance of ecological balance.

Karnataka Government has established many National Parks and Wild Life Sanctuaries to protect important species. The following is the list of National parks and Wildlife Sanctuaries (WS) and their year of establishment.

National Park/Sanctuary		Area in sq. km.	District	Year of est.
	1	2	3	4
1.	Anshi N.P.	250	Uttara Kannada	1987
2.	Bandipur N.P.	874	Mysore/Chamarajnar	1974
3.	Bannerghatta N.P.	104	Bangalore	1974
4.	Kundremukh N.P.	600	Chikmagalur	1987
5.	Nagarhole N.P.	643	Mysore and Kodagu	1974
6.	Adichunchanagiri Peacock Sanctuary	0.84	Mandya	1981
7.	Arabithittu	14	Mysore	1950
8.	Bhadra W.S.	492	Chikmagalur and Shimoga	1974
9.	Biligiranagana Temple W.S.	540	Mysore/Chamarajnar	1987
10.	Brahmagiri W.S.	181	Kodagu	1974
11.	Mookambika W.S.	247	Dakshina Kannada/Udupi	1974
12.	Nugu W.S.	30	Mysore	1974
13.	Sharavathy Valley W.S.	431	Shimoga	1974
14.	Someshwara W.S.	88	Dakshina Kannada/Udupi	1974
15.	Shettyhally W.S.	396	Shimoga	1974
16.	Ranebennur Blackbuck W.S.	119	Dharwad	1974
17.	Pushpagiri W.S.	103	Kodagu	1974
18.	Cauvery W.S.	527	Mysore	1987
19.	Tala Cauvery W.S.	105	Kodagu	1987
20.	Melkote Temple W.S.	247	Mandya	1974
21.	Ghataprabha Bird S.	30	Belgaum	1974
22.	Dandeli W.S.	843	Uttar Kannada	1987
23.	Ranganatittu Bird S.	0.67	Mandya	1940
24.	Gudavi Bird S.	0.73	Shimoga	1989
25.	Daroji Bear Sanctuary	55.87	-	-
26.	Attiveri Bird Sanctuary	2.23	-	-

There are five National Parks and 21 wildlife sanctuaries covering an extent of 6,360 Sq. km. of the total forest area. They comprise of evergreen to scrub type of forests thus forming a network of representative ecosystem to conserve endangered species of plants as well as animals and birds. As per the 1989 census of the larger mammals, there were 257 tigers, 283 panthers, 4,418 elephants and 5,473 bisons. As per the Census of Wildlife population conducted during 1997-98 there were 395 tigers, 1,360 gaur, 6,185 elephants, 817 panthers, 2,324 bears, 15,760 wild bears, 23,850 deer, 8,484 bisons, 4,998 sambars and 957 foxes.

### **Environment Situation in Karnataka**

Survival of life on earth depends on the availability of natural resources. The use of these resources has an impact on the environment around us. Water usage leads to its pollution. Coal, oil, minerals and metals are being depleted by increasing usage. A high level of irrigation, unless accompanied by proper drainage, make the soil saline or water-logged. Combustion of fuels results in greater accumulation of carbon dioxide leading to global warming. This use and depletion of resources has an impact on our environment.

About sixty per cent of the land area in the States is under one or other type of agriculture. This is above the national average of 51%. A portion of this land is marginal for agriculture and requires higher inputs but gives lower yields. As subsistence farming is economically nonviable, this land is soon degraded and the soil is eroded. Land that cannot support agriculture could well be suitable for forestry and pasture.

Irrigated land has been rendered saline or water-logged due to water use. Thus in the upper Krishna Project about 71,000 ha, have become either saline or alkaline. In the command area of the Tungabhadra reservoir about 33,000 ha, are either saline or water logged; 24,455 ha are saline or waterlogged in the Malaprabha and Ghataprabha (command) area and 16,500 ha, in the Cauvery basin. Remedial measures are being undertaken in some areas at a high cost.

Pasture lands in the State have been steadily decreasing. During 1956 to 1983, pastures came down by 31% while animal units increased by 30%. Over-grazing is bound to follow together with compacting of the land cattle paths.

As a result of the expansion of agriculture and its allied activities, the natural vegetation in the plains has suffered the most. In fact the characteristic vegetation of this habitat namely the scrub forest has almost vanished. The wild life too has practically been wiped out in this tract except in isolated pockets. Similarly in the Western Ghats, the fragmentation of natural vegetation has already reached alarming proportions and this would have serious consequences on the rate of extinction of species. The wild life has been decimated in many parts of the State and its numbers are rapidly dwindling due to loss of habitat, constant fragmentation and illegal killing.

The forest areas in the Western Ghats are being converted into plantations of cardamom, cocoa, rubber, coffee and tea. Simultaneously timber and fuel wood species are replacing the rich tropical forests. These plantations while being commercially remunerative, can cause great harm to the bio-diversity and habitat of the *flora* and

*fauna*. Vast forest areas have been submerged by hydel projects on the west-flowing rivers. Resettlement of the people displaced by development projects has further reduced the forest area by honey combing the forests with human settlement.

Silting is the most serious problems with tanks and reservoirs. The capacity of the tanks goes on decreasing every year, the tank irrigating less and less land, ultimately becoming altogether useless for irrigation when the sluices can no longer be opened. The solution proposed for the silting problem is afforestation of the catchment to the extent possible, banning cultivation in the foreshore lands and construction of small checkdams upstream to trap the silt.

The exploitation of renewable and non-renewable natural resources is likely to have an environmental impact. Increased production of minerals will vary with the location, method and magnitude of operations. Area surrounding the mines will also be affected by the works as well as workers. So the extent and mode of mining must be regulated by ecological considerations for the long term utilisation of resources.

Pollution is the introduction of extraneous materials into environment adversely affecting its normal use. Water pollution is caused mainly by discharge of waste waters into natural water courses and water bodies. Water is being polluted by industries and human habitations. Industrial effluents can cause organic, chemical and even hazardous pollution. In order to control this pollution, effluent standards have been prescribed industry-wise. Thermal pollution caused by water with temperatures above the ambient water temperature is also to be controlled. The Water (Prevention and Control of Pollution) Act was enacted by Parliament on 23<sup>rd</sup> March 1974.

The greatest water pollution in the State is caused by Urban Agglomerations. It is obligatory on the authorities to treat the sewage before discharging it. However 139 of the 172 Municipalities do not have functional underground drainage or sewage treatment plants.

### **Air pollution**

Stack emissions from industries also emits fumes containing both suspended particles as well as abnoxious gases. Stack emission are to be controlled and have to conform to standards using devices like cyclones, scrubbers, electrostatic precipitators and similar devices. The resultant particulate matter gives a sludge which again has to be disposed off. The Raichur Thermal power plant produces around 3,000 tonnes of ash a day. The Mangalore Super Thermal Power Plant is estimated to generate 20,000 tonnes of ash a day. A step towards controlling pollution and protection of our environment was taken by the Central enactment of Air (Prevention and Control of Pollution) Act 1981.

Noise pollution caused by 1) Industrial Noise, 2) Traffic Noise, 3) Cultural Noise is also under the purview of this Air (Prevention and Control of Pollution) Act of 1981. Noise is as harmful to the human being as polluted air and water. Noise pollution associated with urban life is on the increase. The vast majority of people are under the false impression that ears adapt to increased noise levels. The truth is that they never do, but silently surrender their functions, with increasing age of an individual.

More comprehensive legislation to provide for the protection and improvement of the environment was Centrally enacted and termed the Environment (Protection) Act on 23<sup>rd</sup> May 1986.

The Department of Ecology and Environment was established in March 1981 to have an integrated approach to deal with, prevention and control of air and water pollution, preservation and development of forest wealth and other natural resources in the State. The Environment (Protection) Act came into force from November 1986 and the existing Water Act and Air Act have been amended over the last two years. The new provisions of the environmental laws enable the general public to question the authorities involved in the environmental pollution control in a court of law. The Ecology and Environment department is now responsible for the management of hazardous chemicals and control of oil pollution in coastal waters. In addition beach management has also been given considerable importance.

#### **Karnataka State Pollution Control Board**

The Karnataka State Board for Prevention and Control of Water Pollution was constituted by the Government of Karnataka on 21st September 1974 in pursuance of the Water(Prevention and Control of Water Pollution) Act 1974. After the enactment of the Air (Prevention and Control of Pollution) Act 1981, the enforcing responsibility was entrusted to the Board. The Board was later renamed as Pollution Control Board in 1985.

The Board is also enforcing the following Acts and Rules viz 1) The Water (Prevention and Control of Pollution) Cess Act, 1977 as amended by the Amendment Act 1991; 2) The Water (Prevention and Control of Pollution) cess rules 1978; 3) the rules framed under Environment (Protection) Act 1986 a) Hazardous waste (Management and handling) rules 1989 and b) Manufacture, Storage and Import of Hazardous Chemicals rules 1989 and 4) The Public Liability Insurance Act 1991.

The Board has identified 9,012 industries upto 31st March 1999 under pollution control laws. There are 120 highly polluting industries, 437 industries have been identified under the Hazardous Waste (Management and Handling) Rules 1989. The total quantity of hazardous waste generated in the State is 33,282 MT/Annum. (Recyclable/Reusable - 13,313 MT/Annum, Incinerable - 3,328 MT/Annum and Land fill - 16,641 MT/Annum. During 1998-99 Environment clearance have been granted to 124 industries. About 888 toilets and 7 crematoriums have been completed under National River Water Conservation Programmes by the State Pollution Control Board, Urban Water Supply and Drainage Board.



## Chapter II

# HISTORY

**K**arnataka has many sites of pre-historic period and most of them are found scattered in the river valleys of Krishna, Cauvery, Tungabhadra, Manjra, Netravati and their tributaries. The pre-historic culture of Karnataka viz., the hand-axe culture, compares favourably with the one that existed in Africa and is quite distinct from the pre-historic culture of North India. Hunasagi, Budihal, Piklihal, Kibbanahalli, Nittur, Anagavadi, Khyad, Nyamati, Balehonnur, Uppinangadi (Lower palaeolithic) ; Herakal, Tamminahal, Savalgi, Salvadgi, Menasagi, Pattadakal, Vajjala, Talakad (Middle palaeolithic); Kovalli, Yadwad, Maralabhavi (Upper palaeolithic); Maski, T. Narasipur, Hallur, Sanganakal, Hemmige, Brahmagiri, Uttanur (Neolithic –Chalcolithic); Rajana Kollur, Bachigudda, Aihole, Konnur, Terdal, Maski, Banahalli, Hallingali, (Megalithic) are some of the important Pre-historic sites of Karnataka. The ragi grain is found commonly in pre-historic sites of Africa and Karnataka. The early inhabitants of Karnataka knew the use of iron, far earlier than the North and iron weapons dating back to c. 1500 B.C have been found at Hallur now in Hirekerur Tq. of Haveri Dt.

Parts of Karnataka were subject to the rule of the Nandas and the Mauryas. Maurya Chandragupta (either Chandragupta I or Samprati Chandragupta, Ashoka's grandson) is believed to have visited Shravanabelgola and spent his last years there. Fourteen Ashokan edicts found in Karnataka (four in Bellary Dt., one in Raichur Dt., two in Koppal Dt., three in Chitradurga Dt. and four at Sannati in Gulbarga Dt.) testify to the extent of the Mauryan Empire.

The Satavahanas (30 B.C to 230 A.D.) of Paithan have also ruled over extensive areas in Northern Karnataka; some scholars even argue that this dynasty hailed from Karnataka, as Dharwad and Bellary Districts are called Satavahanihara (or the Satavahana region). Some of their rulers were called kings of Kuntala. At Sannati in Gulbarga Dt., Vadgaon – Madhavpur near Belgaum and Brahmagiri in Chitradurga Dt., remains of their period have been found. Banavasi in Uttara Kannada saw their inscription of a queen, and at Vasan in Nargund Tq. remains of a brick temple are noticed. Sannati had many Buddhist Stupas of their times covered with sculptures on them. Karnataka fell into the hands of the Pallavas of Kanchi and the Chutu Satakarnis, the Satavahana feudatories, ruling from Banavasi after the fall of the Satavahanas, also seem to have accepted the overlordship of the Pallavas. Pallava domination was ended by two indigenous dynasties, namely the Kadambas of Banavasi and the Gangas of Talakad, who divided Karnataka between themselves.

### **Bird's eye View**

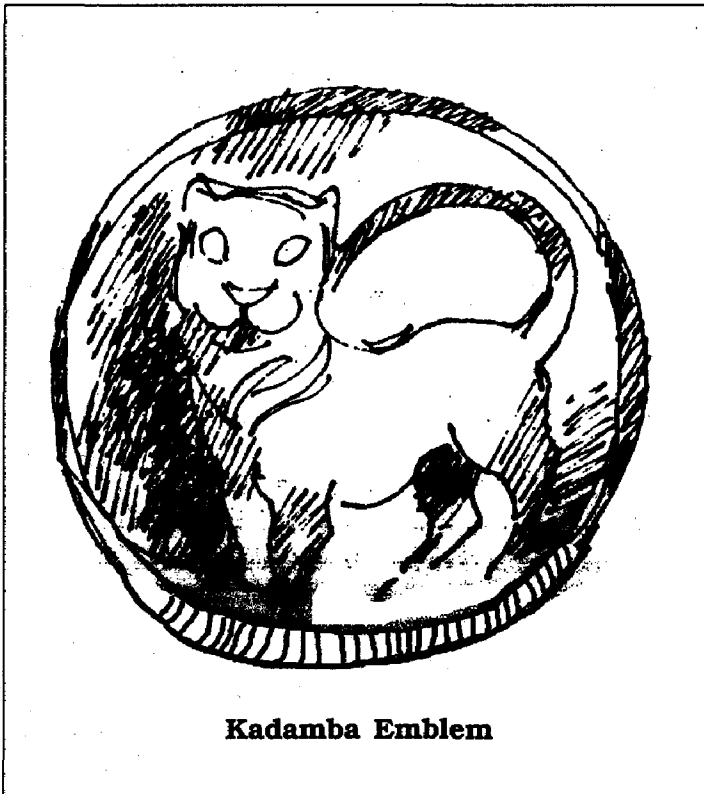
A bird's eye view of Karnataka's political history can be presented here onwards. The Gangas and the Kadambas ruling from c.345 A.D; the Chalukyas of Badami in Bagalkot Dt. (540 to 753 A.D) overthrowing the Kadambas and subjugating the Gangas; the Rashtrakutas of Malkhed from Gulbarga Dt. (753 to 973 A.D) succeeding the Badami Chalukyas, and they in turn overthrown by the Chalukyas of Kalyana (973 to 1189 A.D), ruling from modern Basavakalyana, in Bidar Dt. The Gangas continued in the Southern parts, earlier as sovereign



rulers (350 to 550 A.D) and later as allies or feudatories of either Badami or Malkhed rulers till 1004 A.D., when their territory, Gangawadi (Southern Karnataka) was occupied by the Cholas. The Cholas who dominated over Southern Karnataka from about 1004 A.D. were overthrown by Hoysala Vishnuvardhana in 1114 A.D.

During the Kalyana Chalukya rule came the Kalachuri Interregnum (1162-1184). The Kalyana Chalukyas were overshadowed by their feudatories, the Sevunas of Devagiri and the Hoysalas of Dwarasamudra, who divided Karnataka between themselves; when the armies of the Delhi Sultan overthrew these two dynasties, the Vijayanagara Empire (1336) and the Bahmani Sultanate (1347) came to rule over Karnataka, and the former had control over the greater part of Karnataka. Of the five Shahi Sultans who succeeded the Bahmanis, the Adilshahis of Bijapur (1489-1686) and the Baridshahis of Bidar (1504-1619), the former dynasty overthrew the latter. The city of Vijayanagara was captured by Shahi Sultans in 1565, and the capital of the empire was shifted to Penugonda (Andhra Pradesh), beyond the frontiers of Karnataka till 1646.

Of the successors of Vijayanagar in Karnataka, their feudatories, the Mysore Odeyars, Chitradurga Palegars and the Keladi Nayakas were the most important. The northern regions were under the control of the Adilshahis of Bijapur till 1686, when they were overthrown by the Mughuls. With the weakening of the Mughul power in the North, the Marathas came to have control over northern districts of Karnataka. Haidar Ali, who usurped power from the Odeyars of Mysore in 1761, captured the Keladi and Chitradurga Kingdoms in 1763 and 1779 respectively. Karnataka came under British rule after the overthrow of Tipu, Haidar's son in 1799 and the Marathas in 1818 (when the Peshwa was defeated). After having been subjected to a number of administrations during the British rule, Karnataka became a single State in 1956.



**Kadamba Emblem**

### **The Kadambas**

The Kadamba Dynasty was founded by Mayuravarma, son of Bandhusena in c. 345 A.D. He was a brahmin student from the celebrated Talagunda Agrahara (an Agrahara is a settlement of scholarly brahmins, engaged in religious and academic pursuits) from Shimoga Dt. He had gone with his grand father Veerasharma to the Ghatika of Kanchi for higher studies. Subjected to some kind of humiliation at the Pallava capital, this young brahmin gave up his hereditary priestly vocation and took to the life of a warrior and revolted against the Pallavas. The Pallavas were forced to recognise him as a sovereign when he crowned himself at Banavasi in

Uttara Kannada Dt. One of his successors, Kakustha Varman (c. 435-55) was such a powerful ruler that even the Vakatakas and the Guptas cultivated marital relationship with this family during his time. The great poet Kalidasa seems to have visited his court.

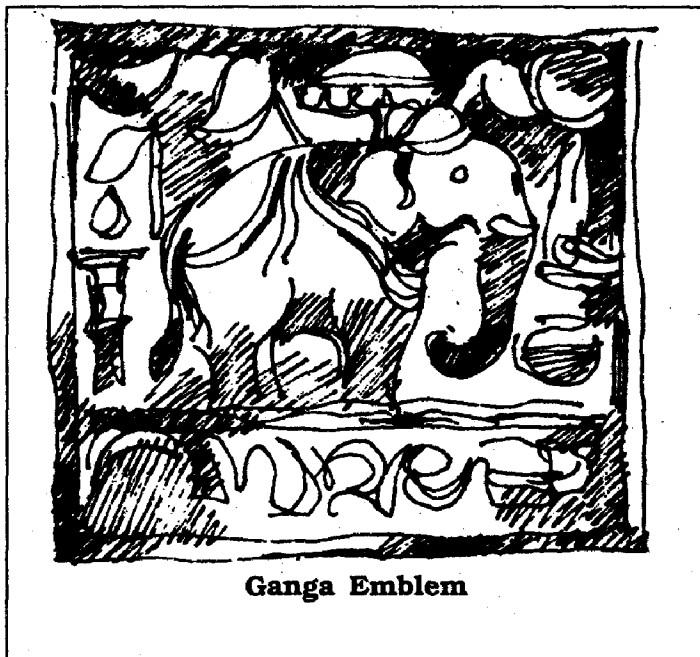
The first Kannada record found at Halmidi (450 A.D. Hassan Dt.), was issued by this dynasty. The Kadambas built fine temples and bastis and the Kadamba Nagara Shikharas in temples is their contribution. They also created first rock-cut shrines of Vedic tradition at Aravalem in Goa (which was under their control) in a laterite hill range. The tanks at Chandravalli and Gudnapur are among the many irrigation tanks they built. They had lion as their royal insignia. They were overthrown by the Chalukyas of Badami in c. 540 and later two branches of the family (one from Hanagal and the other from Goa) ruled as subordinates of the Chalukyas of Kalyana. A branch of the Kadambas was also ruling from Orissa as subordinates of the Gangas of Kalinga.

### The Gangas

The Gangas started their rule from c. 350 from Kolar and later their capital was shifted to Talakad (Mysore Dt.). Elephant was their royal insignia. Till the advent of the Badami Chalukyas, they were almost a sovereign power. Many Ganga princes were not only scholars and writers, but also great patrons of scholarship. Later they continued to rule over Gangavadi (which comprised major parts of South Karnataka) till the close of 10<sup>th</sup> century as subordinates of the Badami Chalukyas and the Rashtrakutas. It is the Gangas who withstood the onslaught of the Pallavas and the Cholas to subjugate South Karnataka. Durvinita (c.555-605) was one of the great kings of this dynasty. He being a scholar wrote both in Kannada and Sanskrit. The Sanskrit poet Bharavi lived in his court for some time. The ancient Kingdom Punnata (the modern Heggadadevanakote taluk region) was merged in his Kingdom. His great grandson Bhuvikrama (669-79) was a strong ally of the Chalukyas, and at the Battle of Vilande (c.670) which was fought between the Chalukyas and the Pallavas, he helped the

former gain victory over Pallava Parameshwara Varman and snatching as a war trophy, the Pallava ruler's necklace called Ugrodaya. Mankunda in Channapatna taluk was also his capital for sometime.

A later prince of this family, Sripurusha (726-88) was not only a strong ally of the Chalukyas, but also resisted the Rashtrakutas who tried to subdue him, after the overthrow of the Chalukyas of Badami by them in 753. Sripurusha, as a Chalukyan ally killed Pallava Nandi Varman II at Vilande in 731 and assumed the Pallava ruler's title Permanadi. This great ruler also wrote a Sanskrit work Gajashashtra, a study on elephants. He shifted his capital to Manne



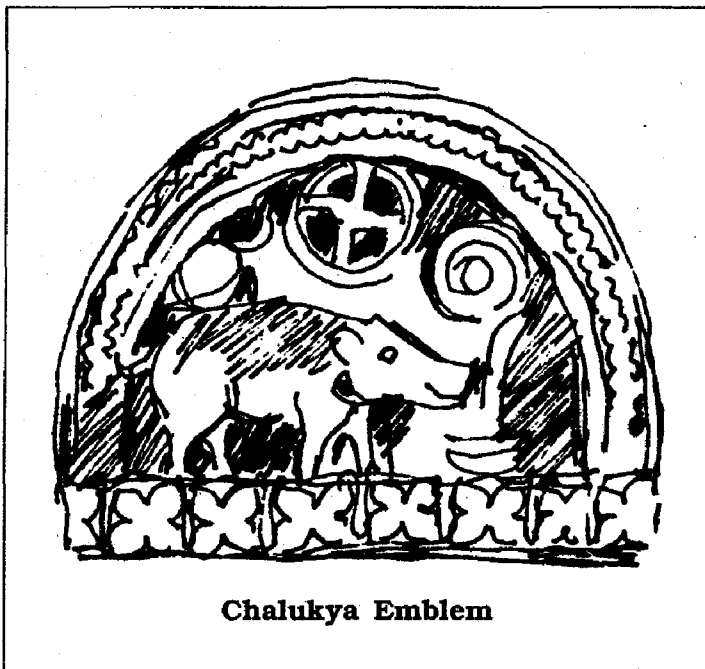
Ganga Emblem

(Manyapura) in Nelamangala Tq. His son Shivamara II (788-816) and grandson Rachamalla I (816-43) continued to resist Rashtrakuta power. In the end, Rashtrakuta Amoghavarsha (814-78) sought reconciliation with the Gangas by marrying his daughters to the Ganga princes. At a later date, when the Cholas became strong, the Ganga king Butuga II (938-61) allied himself with the Rashtrakutas against the Cholas, and helped Rashtrakuta Krishna III (939-67) to humiliate the Cholas. Finally their territory came to be subdued by the Cholas in 1004, and thus the Ganga rule ended. A branch of the Gangas ruled from Orissa from 496 A.D. and became celebrated in history as the Eastern or the Kalinga Gangas.

Gangas dotted the country with many tanks. Kolar, the core country of their initial rule, and Mysore Dt. have many irrigational sources of their times. Their fine temples are seen at Kolar, Talakad, Begur, Nagavara, Gangavara, Nandi and Narasamangala. The last named has wonderful stucco figures of remarkable beauty. They also built Jaina bastis at Kambadahalli and Shravanabelagola. The Gommata monolith at the last named place, 58' in height is the creation of their minister Chavundaraya in c. 982 A.D.

### The Badami Chalukyas

It is the Chalukyas of Badami who brought the whole of Karnataka under a single rule. They are also remembered for their contributions in the field of art. Their monuments are concentrated at Badami, Aihole, Pattadakal and Mahakuta in Karnataka and at Alampur, Gadwal, Satyavolyal and Bichavolu in Andhra Pradesh. They are both rock-cut and structural with wonderful sculptures wrought in hard red sandstone. The first great prince of the



Chalukya Emblem

dynasty was Pulikeshi I (c. 540-66 A.D) who built the great fort of Badami and performed Ashwamedha (horse sacrifice) after subduing many rulers including the Kadambas. His grandson, Pulikeshin II (609-42) built a vast empire which extended from the Narmada in the north, to the Cauvery, in the south. In the east, he overthrew the Vishnukundins and appointed his younger brother Vishnuvardhana, as the viceroy of Vengi. This prince founded the Eastern Chalukya Dynasty which ruled for five centuries in Andhra. (A later prince of this Vengi line, Kulottunga, even succeeded to the Chola throne in 1070). Harsha of Kanauj was defeated by Pulikeshin II.

The Chalukyan army has been called

'Karnatabala' and described as invincible in contemporary inscriptions. He exchanged embassies with Persia and the Chinese pilgrim Hiuen Tsiang visited his court. The Pallavas conquered Badami in 642 after defeating Pulikeshin II's army. His son Vikramaditya I

(655-81) reconquered the Chalukyan capital and reorganised his father's empire and restored the fame as 'invincible' of their army 'Karnatabala'.

Vikrama's son Vinayaditya (681-96) defeated, the ruler of Kanauj who claimed to be the paramount lord of the North (Sakalottarapathanatha). He even sent an expedition to Cambodia. The Arabs who had conquered Sindh (711) tried to make inroads into the Deccan. They were defeated by the Chalukya feudatory in South Gujarat called Avaniashraya Pulikeshin in 739. The Arabs were forced to leave Sindh after this defeat. The Chalukyan empire included not only the whole of Karnataka and Maharashtra, but the greater part of Gujarat, Madhya Pradesh and Andhra, and also parts of Orissa and Tamilnadu. Vikramaditya II (693-734) in the line defeated the Pallavas and entered the Pallava capital Kanchi victorious. But he did not loot Kanchi as the Pallavas had done at Badami in 642. He made grants to the Rajasimheshwara temple of Kanchi. His queens built the Virupaksha and Mallikarjuna temples at Pattadakal to commemorate his victory. But the Chalukyan power was weakened in the long run by its wars with the Pallavs.

### **The Rashtrakutas**

In 753, Dantidurga, the Rashtrakuta feudatory of the Chalukyas, overthrew the Chalukyan king Keerthivarman II and his family inherited the fortunes of the Chalukyas. He claims that he did this by defeating the 'Karnatabala' of the Chalukyas described as 'invincible' in those days. We owe the engraving of the celebrated monolithic Kailasa temple at Ellora (now in Maharashtra) to Dantidurga's uncle, Krishna I (756-74). Krishna's son, Dhruva (780-93) crossed the Narmada, and after defeating the celebrated princes like Vathsaraja of the Gurjara Pratihara family, Dharmapala, the Gouda King of Bengal and extracted tribute from the ruler of Kanauj, 'the seat of India's Paramountcy'. His son Govinda III (793-814) also repeated the feat when he defeated Nagabhata II, the Gurjara Pratihara and Dharmapala of Bengal and again extracted tribute from the king of Kanauj. His 'horses drank the icy liquid bubbling in the Himalayas' says a record testifying to his victorious march in the North. The achievements of the Chalukyas of Badami and Rashtrakutas by defeating the rulers of Kanauj have made the name of their era "Age of Imperial Kanauj", a misnomer. It can be called the "Age of Imperial Karnataka".

Amoghavarsha Nripatunga (814-78) son of Govinda III, had to face the threat of the Eastern (Vengi) Chalukyas, who challenged his very existence. But he succeeded in subduing them after defeating Chalukya Vijayaditya II at Vinagavalli. He was a peace-loving monarch who used matrimony as one of the weapons in diplomacy. But he killed as many as six contemporary political potentates who created trouble for him. But he did not conduct Digvijayas like his father and grandfather. He succeeded in maintaining the Empire intact. Himself a scholar, Amoghavarsha was a great patron of scholars, and great Jaina savants like Veerasena, Jinasena, Gunabhadra, grammarian Shakatayana and Mathematician Mahaveera adorned his court. Adipurana and commentaries on the Shatkhandagamas called as Dhavala, Jayadhavala and Mahadhavala written in his court were the great Jaina works of all India importance. Kavirajamarga, the first extant Kannada work is of his times composed by his court poet Srivijaya in C. 850 A.D. His great grandson Indra III (914-29) even captured Kanauj and held it under his control for two years. One of his feudatories, Arikesari of Vemulavada patronised Sanskrit writer Somadeva (of Yashastilaka fame) and Kannada poet Pampa.

Rashtrakuta Krishna III (936-67) subdued the Cholas in the South and established a pillar of victory at Rameshwaram. In fact the so-called 'Age of Imperial Kanauj' was the Age of Imperial Karnataka, when the prowess of the Kannadiga was felt all over India. Even Rajashekhara, the celebrated Sanskrit writer, has called the Karnatas as great experts in the techniques of war. Soldiers from Karnataka were employed by the Palas of Bengal. One such Kannada warrior founded the Sena Dynasty of Bengal and the other Karnata Dynasty of Mithila (modern Tirhath in Bihar). The Rashtrakutas sponsored the engraving of many Hindu rock-cut temples on the Buddhist model like the Dashavatara Shrine at Ellora, the Jogeshwara near Bombay and the one at the Elephanta Island. (Some scholars ascribe the last named to their Kalachuri feudatories). Arab traveller Suleiman tell us that the Rashtrakuta Empire was the largest in India and he ranks it with greatest Empires of the world namely the Eastern Roman, the Arabic and the Chinese Empires. He visited India in 851 A.D. Both the Chalukyas and the Rashtrakutas constructed many tanks. The Shiggaon copper plate of the former speaks of 14 tanks in Haveri Dt. Their temples are found at Sirivala, Sulepet, Gadikeshwar, Adaki, Sedam, Handarki etc., in Gulbarga Dt. Naragund, Ron and Savadi in Gadag Dt. and at Hampi also. These two dynasties Chalukyas of Badami and the Rashtrakutas popularised animal husbandry by donating cows in thousands. The stones commemorating such grants (Gosasakallu) are seen all over.

### **The Kalyana Chalukyas**

The Chalukyas of Kalyana who claim to be the successors of the Badami Chalukyas, overthrew the Rashtrakutas in 973, and Taila II (Trailokya Malla), the first ruler of the dynasty later defeated the Chola rulers like Uttama and Rajaraja I, and even killed Paramara Munja of Dhara. His son Satyashraya (997-1008) patronised the great Kannada poet Ranna. Someshwara I (1043-1068), Satyashrya's grand nephew, succeeded in resisting the efforts of the Cholas to subdue Karnataka, and he built a new capital Kalyana (modern Basava Kalyana in Bidar Dt.). The Chola king Rajadhiraja was killed by him at Koppam in 1054.

His son Vikramaditya VI (1076-1127) who started the Vikrama Saka Samvatsara on his coronation, celebrated in history as the patron of the great jurist Vijnyaneshwara, (work: Mitakshara, standard work on Hindu law), and the emperor has been immortalised by poet Bilhana (hailing from Kashmir) who chose his patron as the hero for his Sanskrit work, Vikramankadeva Charitam, Vikramaditya defeated the Paramaras of Central India thrice and once even plundered their capital Dhara. In the South he captured Kanchi from the Cholas in 1085, and in the East, he conquered Vengi in 1093. His commander, Mahadeva built the Mahadeva temple at Itagi (Koppal Dt.) the finest Chalukyan monument. His son Someshwara III (1127-39) was a great scholar. He has compiled Manasollasa, a Sanskrit encyclopaedia and Vikramankabhyudayam, a poem for which his father is the hero. Manasollasa, a great work of multi-dimensions, depicts the cultural conditions in South India, has sections on administration, medicine, architecture, painting, jewellery, cookery, dance, music, sports etc. It has 100 sections discussing various aspects of human activity.

The Kalachuris, who were the feudatories of the Chalukyas, overthrew the Chalukyas and captured Kalyana in 1162. Bijjala, the first emperor of the dynasty, was the son of a daughter of Vikramaditya VI. He had Basaveshwara, the celebrated religious leader, as his treasurer. Though the Chalukyas staged a comeback in 1184 under Someshwara IV, their

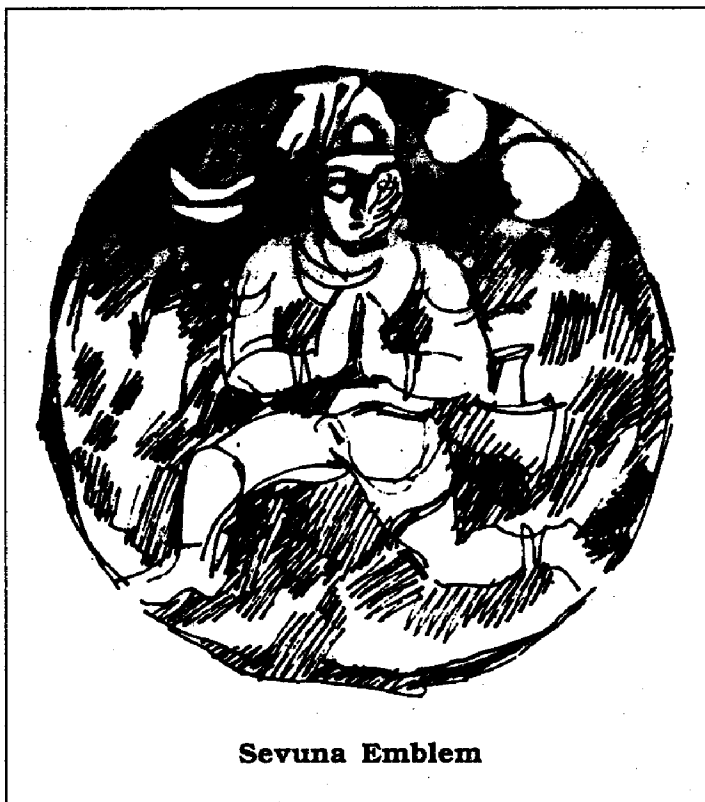
power was overshadowed by their feudatories, the Hoysalas and the Sevunas of Devagiri, who encroached upon the Chalukyan territory, and finally divided Karnataka between themselves. The Chalukyas were great builders, and their beautiful temples renowned for fine and intricate engravings are found at many places like Itagi, Gadag, Dambal, Lakkundi, Belgami, Kuruvatti, Chaudadanapura, Unakal; and at Nagavi, Adki, Yewur, Sedam, Kulageri, Kollur, Diggavi, Madiyala and Kalagi (in Gulbarga Dt), Kadlewada, Chattaraki, Teradal, Nimbala, Muttagi etc. in Bijapur Dt. They were great patrons of scholars, and Sanskrit writers like Vadiraja and Kannada poets like Ranna, Durgasimha and Nayasena lived in their times. The Virashaiva movement saw the advent of Vachana literature in Kannada initiated by Jedara Dasimayya and Kembhavi Bhoganna. It grew during the Kalachuri Interregnum when Basava, Allama, Siddarama, Channabasava, Akkamahadevi and others lived. Virashaivism preached equality of men, tried to emancipate women, and stressed the importance of bread labour by calling it '*Kayaka*' as the means of worshipping God.

### The Sevunas

The Sevunas (Yadavas) who were the feudatories of the Rastrakutas and the Chalukyas of Kalyana, became a sovereign power from the days of Bhillama V (1173-92) who founded the new capital Devagiri (modern Daulathabad in Maharashtra). Earlier they ruled from Sindhinera (modern Sinnar) near Nashik. Bhillama V captured Kalyana in 1186, and later

clashed with Hoysala Ballala II at Soraturu in 1190. Though he lost the battle, he built a vast kingdom extending from the Narmada to the Krishna. His son Jaitugi (1192-99) not only defeated Paramara Subhata Varman, but also killed the Kakatiya kings of Warangal, Rudra and Mahadeva.

Singhana II (1199-1247), the greatest of the Sevunas, extended the Sevuna kingdom upto the Tungabhadra. But the Sevunas were defeated by the army of Delhi Sultan in 1296, again in 1307 and finally in 1318, and thus the kingdom was wiped out. The Sevunas have become immortal in history by the writings of the famous mathematician Bhaskaracharya, the great writer on music Sharngadeva, and of the celebrated scholar Hemadri. The



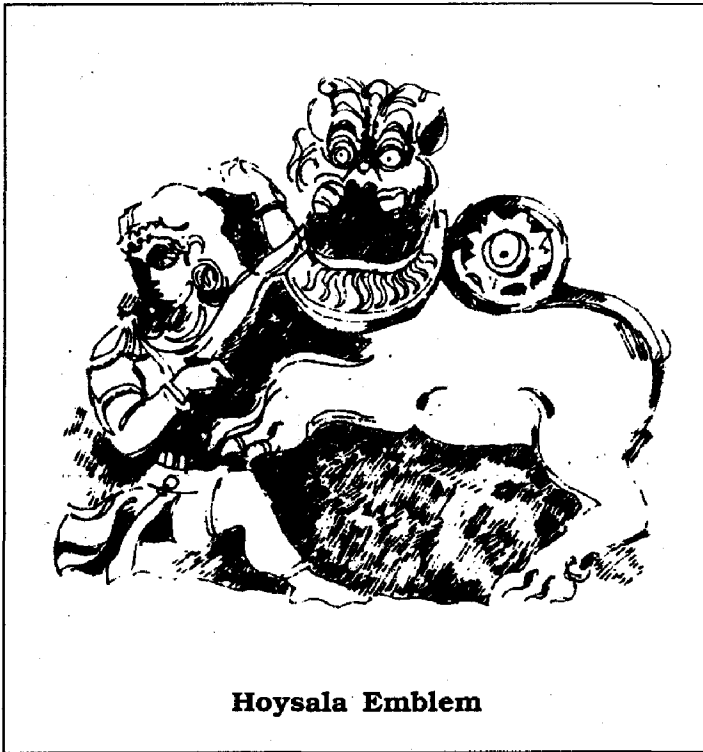
**Sevuna Emblem**

Sevunas and the Hoysalas drained their energy in mutual warfare, and thus the south could be easily subdued by the armies of the Delhi Sultan.

Sharngadeva's work Sangita Ratnakara is the basis for the growth of classical music and Vidyanaraya during the 14<sup>th</sup> century wrote Sangitasara based on Sangita Ratnakara. The Sevunas built fine temples called Hemadpanthi structures which are found all over Maharashtra. The Virabhadra temple at Yedur in Belgum Dt. is one of their structures. They renovated many temples in North Karnataka.

### The Hoysalas

The Hoysalas continued the great tradition of their art-loving overlords, the Kalyana Chalukyas, and their fine temples are found at Beluru, Halebidu and Somanathapura. The first great ruler of the dynasty, Vishnuvardhana (1108-1141) freed Gangavadi from the



**Hoysala Emblem**

Cholas (who had held it from 1004), and in commemoration of his victory, built the celebrated Vijayanarayana (Chennakeshava) Temple at Belur. His kingdom was visited by Ramanujacharya, who stayed at Saligrama, Tonnur, Melkote and other places in Karnataka for long. Vishnuvardhana patronised the saint and although he embraced Srivaishnavism, his family religion remained Jainism. He had been earlier influenced by Srivaishnava Chola officers in Gangavadi. As he wanted to be an Emperor by challenging his overlords, the Kalyana Chalukyas expediency forced him to perform certain Vedic rituals like Agnishtoma and Hiranyagarbha sacrifices (yajnyas). Jainism did not sanction such performances. But he continued to patronise Jainism, as many of his commanders and his

accomplished queen Shantala were Jains. His commander Ketamalla built the famous (Vishnuvardhana) Hoysaleshwara temple at Halebidu.

The Agraharas in Karnataka which were numerous by then had created such a healthy intellectual atmosphere that a rebel against Vedic tradition, Basaveshwara was the illustrious son of Madarasa, the head of Bagewadi Agrahara; and Ramanuja, the great preacher of Srivaishnavism from Tamilnadu could get a hearing to his teachings from the intellectuals in Karnataka, which was denied to him in his own state of birth. Even his life was under threat there.

Though Vishnuvardhana did not fully succeed in his serious effort to overthrow the Chalukyan yoke, his grandson Ballala II (1173-1220) not only became free, but even defeated Sevuna Bhillama V at Soraturu in 1190, after having defeated Chalukya Someshwara IV in 1187. When the Cholas were attacked by the Pandyas in Tamilnadu, Ballala II drove the

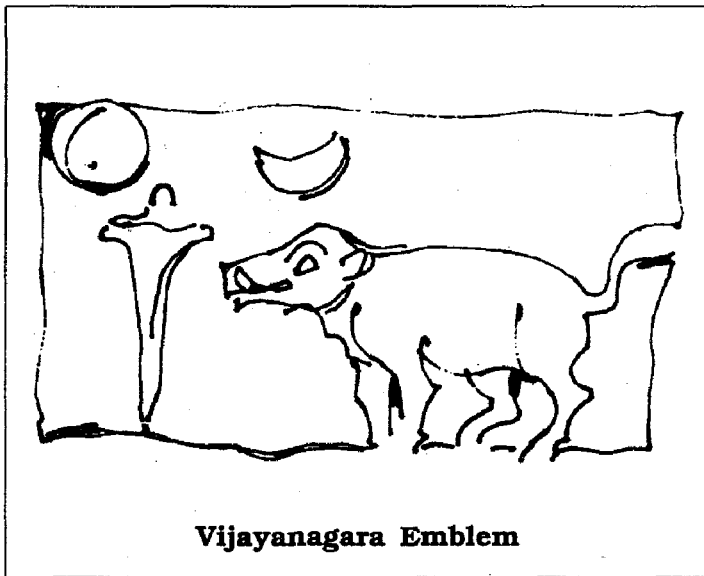
Pandyas back and thus assumed the title "Establisher of the Chola kingdom". Later, in the days of his son Narasimha II (1120-35), Hoysalas even secured a foothold in Tamilnadu and Kuppam near Srirangam became a second capital of the Hoysalas.

Ballala III (1291-1343), the last great Hoysala, had to struggle hard to hold his own against the invasions of the Delhi Sultan. He died fighting the Sultan of Madhurai. It was his commanders Harihara and Bukka, who founded the Vijayanagara Kingdom, which later grew to be an Empire. Hoysala age saw great Kannada poets like Rudrabhatta, Janna, Harihara and Raghavanka. Hoysala temples at Beluru, Halebidu, Somanathapur, Aralaguppe, Arasikere, Amritapura, Basaral, Kikkeri, Hosaholalu, Sindhaghatta, Shravanabelagola, Koravangala, Govindanahalli, Nuggehalli, Javagal, Kaivara, Turuvekere etc., are wonderful works of art.

### Vijayanagara Empire

When the armies of the Delhi Sultan destroyed the four great Kingdoms of the south (the Sevunas, Kakatiyas of Warangal, Hoysalas and the Pandyas of Madhurai) it looked as if a political power following a religion quite alien to the South was going to dominate the peninsula. Many princes including heroic Kumara Rama, a feudatory from Kampila (Kampli) in Bellary dist. perished while resisting the onslaughts. The people were bewildered over the attack on their religious places and the barbaric cruelties perpetrated on the vanquished cities by these invaders from the North. Poems and ballads on Kumara Rama illustrate this bewilderment. When the Vijayanagara kingdom was founded by the Sangama brothers, people wholeheartedly supported them. Tradition says that sage Vidyaranya had caused

a shower of gold to finance the Sangama brothers. Perhaps the sage succeeded in securing financial help from various quarters to the founders of Vijayanagara. To Vidyaranya's guru Bharatiteertha, Harihara and his brothers made some grants at Sringeri in 1346. This grant had a supplementary donation on the same day by Hoysala Queen Krishnayi Tayi, who appears to have been present on the occasion.



**Vijayanagara Emblem**

Harihara founded the kingdom in about 1336 and secured control over northern parts of Karnataka and Andhra from coast to coast. After the death of Ballala III (1343) and his son

Virupaksha Ballala in 1346, the whole of the Hoysala dominion came under his control. The above grant noted at Sringeri with the Hoysala queen, and the kingdom glorifying Kumara Rama demonstrates its efforts as successors of these potentates that had perished. His brother Bukka (1356-77) succeeded in destroying the Madhurai Sultanate. He sent an embassy to China. It is this prince who sponsored the writings of the monumental commentary on the Vedas, Vedarthaprakasha, engaging several scholars, working under the



celebrated scholars Sayana and Madhava. The work was completed in the days of his son Harihara II (1377-1404).

Harihara II extended his domination in Konkana, beyond Goa upto Chaul. In the East he conquered Pangal to the north of the Krishna. Efforts made by Firuzshah Bahmani to conquer this fort were foiled by Devaraya II (1424-49), the greatest of the Sangamas, defeated the Bahamanis when he was the crown prince, and this resulted in the shifting of the Bahamani capital to the North i.e. Bidar in c. 1426. He defeated the Gajapatis of Orissa twice and foiled the efforts of the Bahamanis to wrest Mudgal. One of his commanders invaded Ceylon and extracted tribute, and the princes of Pegu and Tenasserim in Burma also owed him allegiance. He highly patronized the Veerashaivas. The Hazara Rama Temple at Hampi is his creation. Abdul Razzak, the Persian visitor to his court, says of the capital that "nothing in the world could equal it." Himself a scholar, Devaraya II patronized Gunda Dindima, a Sanskrit poet and Shrinatha, a Telugu poet.

The weak and vicious kings who followed Devaraya II in the Sangama dynasty would have caused the dismemberment of the empire, had not Saluva Narasimha, an able commander assumed power (1485). Later, there was second usurpation, by the Tuluva Krishnadevaraya (1509-1529) the greatest emperor, a great warrior, scholar and administrator. He secured Raichur Doab in 1512, and later marched victorious into the capitals of his enemies like Bidar (1512) Bijapur (1523) and in the East, Cuttack (1518), the capital of the Gajapatis. "A great ruler and a man of great justice" (in the words of Portuguese visitor Paes) Krishnadevaraya was a man of letters and a great patron of scholars. He himself wrote a Telugu work *Amuktamalyada*. He had eight great Telugu poets called as the *Asthadiggajas* in his court, and among them was Allasani Peddana. He built the Krishnaswamy Temple in the capital. It was during his time that the Portuguese conquered Goa from Bijapur rulers in 1510. They had a flourishing trade with Vijayanagara to which they supplied horses. Portuguese rule in Goa had far reaching effects. They introduced new flora like groundnut, chilly, tobacco etc., besides printing from the New World.

In the days of Aravidu Ramaraya (1542-65), Krishnadevaraya's son-in-law, the four Shahi Sultans attacked the Empire, and after killing Ramaraya at Rakkasathangadi (Rakkasagi-Tangadagi) in 1565, destroyed the capital Vijayanagara.

Vijayanagara rulers patronized all religions. The Portuguese visitor Barbosa testifies to this catholic outlook of the emperors. Every existing temple was provided with a strong enclosure, a lofty tower at the entrance and vast mantapas. Literary activity in all South Indian languages was encouraged. The empire took upon itself the responsibility of conserving Indian traditions in religion, science, thought and literature. Vijayanagara played a great role in conserving local religions and cultural tradition. In addition to the commentaries on the Vedas, Sayana compiled many works to conserve Indian tradition like Yajnyatantra Sudhanidhi, Ayurveda Sudhanidhi, Purushartha Sudhanidhi, Subhashita Sudhanidhi and Alankara Sudhanidhi. Madhava (Vidyaranya) wrote Sarvadarshana Sangraha introducing all religions of Indian origin. His Parashara Madhaviya is a commentary on Parasharasmriti, a work on Hindu life and law and Parashara Madhaviya has clearly stated that the Sati (suicide by a widow) is "Kalivarjya", to be abhorred totally in Kaliyuga.

The Emperors not only built fine temples of all denominations (Shaiva, Vaishnava, Srivaishnava, Jaina etc.) but renovated many temples destroyed prior to their rule. All existing temples were provided with huge prakaras (compounds) and tall impressive entrance towers called as Rayagopuras found not only at Hampi but also at Srishailam, Kalahasti, Tirupathi, Srirangam, Chidambaram, Kanchi etc., In addition, they also provided the existing temples with vast and impressive Kalyana Mantapas or Sabha Mantapas which were open pillared pavilions. Each mantapa had scores of tall monolithic pillars which were solid pieces of art. These public works provided jobs to thousands. Their temples seen at places like Hampi, Haravu, Belluru, Kikkeri, Ambaligere, Holalkere, Sringeri, Kurugodu, Bagali, Khandya, Kalasa etc. are noteworthy.

Sanskrit, Kannada, Tamil and Telugu literature flourished during this time. The Veerashaiva religion saw a renaissance, Karnataka Music came to blossom by the works of Vidyaranya, Kallinatha, Ramanamatya, Purandaradasa and Kanakadasa. Purandaradasa did a lot to popularise it by composing primary compositions to teach this music and he has been rightly called "the father of Karnataka Music" by saint Tyagaraja.

Foreign merchants and travellers like Nicolo Conti(1420), Abdul Razak (1443), Barbosa (1500-11), Paes (1520), Nuniz (1535), and Caesar Fredrick (1567), who visited the Empire give a vivid account on the flourishing condition that prevailed in the empire in general and Vijayanagara in particular.

### **The Bahamanis**

The Bahmani Sultans are remembered for the great contribution they made in the field of Indo-Saracenic art in the South. Founded by Alla-ud-Din Hasan at Gulbarga in 1347, the Bahmani Kingdom clashed with Vijayanagara all through its history. Muhammed Bahamani built the famous Jami Masjid at Gulbarga fort in 1367, a huge monument of enduring beauty. Domes, vaultings and arches of mortar were introduced by them in their buildings of Karnataka.

Firuz Shah (1397-1422), was a great Sultan in the line and was the grandson of the founder. He extended the kingdom in the East by capturing Rajamahendri from the Reddis. He took pleasure in the society of learned men and patronized Surhindi, a scholar, and Hassan Gilani, an astronomer. He erected observatory at Daulatabad.

Ahmed (1422-36), successor of Firuz shifted his capital to Bidar, where fine palaces came to be raised in course of time. The Solha Kamb mosque is a fine creation of his time. He was highly devoted to Sufi saint Bande Nawaz. The prince himself was called 'Vali' (saint) and his tomb at Ashtur near Bidar is highly venerated.

Another great figure in Bahmani history is Mahamud Gawan, a great minister who was born in Persia (1411). On his visit to Bidar (1445) he was given an important position in the Bahamani court, and he was the chief administrator of the kingdom from 1461 till his death in 1481. He administered the territory during the minority of two Sultans, and extended it in the South upto Hubli, in the West upto Goa and the Konkan Coast, and in the East by capturing Kondavidu and Rajamahendri. A scholar and writer himself, he founded a college at Bidar and provided it with a library from his own personal income. The college building (Madrassa) is a fine structure. Gawan fell a victim to court intrigues and was ordered to be executed by Sultan Muhammad, whom Gawan had educated and brought up.

With him vanished the glory of the Kingdom, and soon it broke up into five Shahi Kingdoms of the Deccan. The fine Indo-Saracenic buildings at Gulbarga, Bidar and Ashtur are the contributions of this Sultanate.

### **The Adilshahis**

Of the five Shahi Kingdoms that rose from the ruins of the Bahamanis, the Adilshahis of Bijapur ruled over the greater part of Karnataka. It was founded in 1489 by Yusuf Adil Khan, a commander and governor under the Bahmanis. The Adilshahis were great patrons of art and men of letters. Yusuf has been called "a powerful and prosperous king" by Varthema, the Italian Visitor. His son Ismail (1510-35) was recognised as a ruler by the Shah of Iran and he sent an embassy to Bijapur. Ismail's grandson, Ali (1557-80) was in friendly terms with Ramaraya of Vijayanagara who had adopted Ali as his son. But other Shahi Sultans forced Ali to join the confederacy against the Vijayanagara Empire, whose army was defeated in 1565. The Jami Mosque at Bijapur with a wonderful design was raised by him.

Ibrahim II (1580-1626), Ali's nephew is the greatest Adilshahi king. He captured and merged the Baridshahi Kingdom of Bidar in 1619. He was a tolerant ruler and was nicknamed 'Jagadguru'. He built the temple of Narasimha Saraswati (Dattatreya) in the citadel of his fort. A lover of Hindu music, he had 300 singers in his court. He composed *Kitab-e-Nauras* in Urdu, introducing Hindu music to Muslims. The book begins with an invocation to Goddess Saraswati. He patronised great historians like Ferishta and Shirazi, and raised beautiful buildings like Ibrahim Rauza, Malika Jahan Masjid and Anand Mahal. His son Muhammad (1626-56) extended the kingdom in the South upto Bangalore and in the South-East upto Vellore. Bangalore and the surrounding regions were granted as jaghir to Shahji Bhosle, Shivaji's father. The Marathas retained Bangalore till 1686. It is this prince who has built the magnificent Gol Gumbaz at Bijapur. The Adilshahi kingdom was annexed by Aurangzeb in 1686. Adilshahi buildings at Bijapur like Asar Mahal and Ibrahim Rauza have paintings. Ragmala paintings and personal portraits of members of the royal family including Chand Bibi are preserved in the Bijapur Museum.

Some of the Bijapur rulers were Shiahs and celebration of Moharram by installing tabuts became common in Karnataka. A form of Urdu called Deccani Hindi also developed in their court.

The Mughuls extended their territory to the South. They conquered Bangalore in 1686 and leased it out to Chikkadevaraya of Mysore. They made Sira in Karnataka and Arcot in Tamilnadu their important administrative centres. Sira has some fine Mughul buildings. The Nawabs of Savanur, Sira and Advani administered the Kannada territories under the Mughuls, and some Kannada districts were also administered by Nizam, another feudatory of the Mughuls.

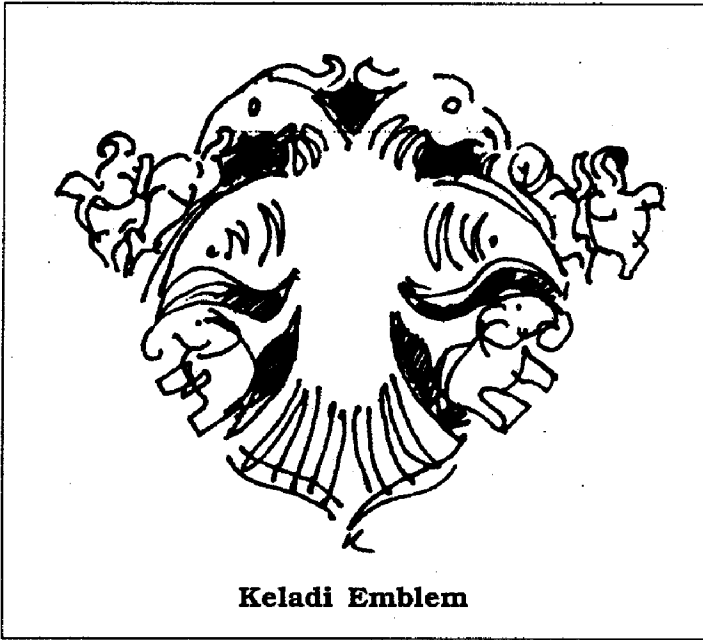
### **Keladi Kingdom**

The Keladi Nayakas, who were the feudatories of Vijayanagara, became practically free in the days of Venkatappa Nayak I (1586-1629), who merged the coastal territories like Gersoppa into his kingdom. Shivappa Nayaka (1645-60), a great soldier and statesman ousted the Portuguese from their possessions on the West Coast, namely Mangalore, Honnavar and Basrur. He reformed the revenue system, and it is renowned as 'Sisthu'. He

helped reclamation of land on a large scale. Keladi enjoyed a rich overseas trade, especially in spices, textiles and rice. Their capitals are in Shimoga Dt.

His daughter-in-law, Chennamma (1571-97) is renowned for her Valour, as she gave shelter to Maratha Chatrapati Rajaram (son of Shivaji) and braved Auranzeb's army. Her

successor Basavappa (1697-1714) wrote *Shivatatva Ratnakara*, a Sanskrit Encyclopaedia. They have raised fine temples at Keladi, Ikkeri Nagar and a wonderful hill fort at Kavaledurga. Keladi was captured by Haidar Ali in 1763, and the kingdom was merged with Mysore.



**Keladi Emblem**

Of the other feudatories of Vijayanagara, the Kempegowda family raised the fort and new city of Bangalore in 1537, and the Chitradurga Nayakas raised the magnificent hillfort at Chitradurga.

The Marathas, who were encroaching upon the Bijapur dominion came to have control over the parts of Karnataka to the North of the Tungabhadra. Shivaji built

forts at Ramadurg, Nargund, Parasgad, Gajendragad, Katkol etc., in North Karnataka. In the South they had their Bangalore jahgir administered first by Shahji (1637-63) and later by his son Ekoji. Mysore royal family secured Bangalore and its surroundings from the Mughuls in 1689 on lease. The Mughuls had conquered these areas in 1686 from Maratha ruler Ekoji, a feudatory of Bijapur. Later the Marathas had secured the right of collecting chauth and sardesmukhi, a part of the dues to the Mughuls from the southern feudatories in the days of Chatrapati Shahu (Shivaji's grandson) from the Mughul Emperor in 1719. In fact, Peshwa Balaji Rao had conquered Dharwad in 1753. Later Haidar and Tipu wrested Dharwad area from the Marathas. But the Dharwad area was restored to the Marathas in 1791. But they finally lost it after the fall of the Peshwa in 1818.

### **Mysore Rulers**

The Mysore royal family, which was also a feudatory house under Vijayanagara, took advantage of the weakening of the Empire and became free. Raja Odeyar (1578-1617), secured Srirangapattana (in 1610), the seat of the viceroy. Kanthirava Narasaraja (1638-59), the first sovereign ruler, successfully resisted the efforts of Bijapur to subdue him, and extended his territory. He built the Narasimha temple at Srirangapattan. He issued his own coins called 'Kanthirayi panams'.

Chikkadevaraya (1673-1704) not only resisted the Marathas at Bangalore and Jinji successfully, but also extended his dominions in Tamilnadu. He secured Bangalore and its surroundings (which the Mughuls had conquered from Ekoji) from the Mughuls on lease

and accepted Mughul suzerainty. He made Mysore a rich principality by his able revenue policies. Himself a great scholar and writer, he patronized many Kannada writers like Tirumalarya, Chikkupadhyaya and Honnamma. All these were Shri vaishnavas. Weak rulers succeeded him and this finally led to the usurpation of power by Haider Ali in 1761.

The defeat of the Marathas at Panipat in 1761 helped Haider to follow an aggressive policy. He merged the Keladi Kingdom with Mysore and extended Mysore in all directions. He successfully used cavalry on a large scale. Mysore came to have 80,000 square miles of territory under him. Haider built the palace at Bangalore, strengthened its fort and began the Lalbagh Garden. He built the Dariya Daulat palace at Srirangapattana in the middle of a fine park. He challenged the British in Tamilnadu and defeated them. But he was humiliated by Maratha Peshwa Madhavarao more than once. Haider allied himself with the French against the British. In the meantime Haider Ali captured and annexed the Chitradurga principality from the Madakari family of Chitradurga in 1779.

Tipu Sultan (1782-99) continued his father's anti-British policy, and he dreamt of driving the British out of India. He sought the assistance of Napoleon, the French ruler and also the rulers of Turkey and Afghanistan. Tipu was a scholar and a bold general. He introduced sericulture in Mysore Kingdom; and took firm steps to establish centres producing quality paper, steel wires for musical instruments, sugar and sugar candy. He was very keen on promoting overseas trade and initiated State trading and founded stores not only in different centres of his kingdom but also at Kutch, Karachi and Basrah in the Middle East. He had a curious mind and was keen on introducing novel things in every walk of life. But his ambition of driving the British failed and he died in 1799, fighting against the British. Mysore fell into the hands of the British who handed over parts of it to the Marathas and the Nizam, and crowned the Hindu prince, Krishnaraja Odeyar III as the ruler over the Mysore territory.

The British who had made the Nizam their tributary, defeated Tipu in 1799 and crowned a tributary Hindu prince at Mysore. They secured the territory to the north of the Tungabhadra by defeating the Peshwa in 1818, and became masters of Karnataka, Kodagu (Coorg) a small princely tributary state was also annexed by them in 1834 by dethroning its ruler Chikkavirarajendra.

### **British Rule**

The advent of British rule brought about many changes in Karnataka, as elsewhere in India. The districts, Dharwad, Gadag, Haveri, Bijapur, Bagalkot and Belgaum, taken from the Peshwa, were merged into Bombay Presidency in 1818. The Kanara District, now the districts of Uttara Kannada, Dakshina Kannada and Udupi; and Bellary taken from Tipu, were added on to the Madras Presidency. In 1862 the Kanara District was divided into two, and North Kanara (Uttara Kannada) was tagged on to Bombay Presidency. In 1834 the feudatory monarchy in Kodagu (Coorg) was ended and the state was handed over to a commissioner under the supervision of the Madras Governor. Sullia region belonging to Kodagu was transferred to Kanara.

Mysore was retained as a separate principality; the prince of the Odeyar dynasty, Krishnaraja III, was yet a boy when he became the ruler in 1799. The areas in the modern

districts of Gulbarga, Raichur, Koppal and Bidar were handed over to the Nizam of Hyderabad. In addition to the Nawab of Savanur, there were over 15 other princes, ruling over small Kannada principalities. Most of them were Maratha rulers who included the princes of Jamkhandi, Ramdurg, Mudhol, Sandur, Kurundawad, Jath etc.

Mysore, as a nucleus of Karnataka, grew to be a progressive State. It nurtured Kannada culture and encouraged Kannada literature and scholarship. But for the Mysore State, Karnataka would have lost its identity. Purnayya was made the Chief Administrator (Diwan) during the minority of Krishnaraja III, and later in 1810 Krishnaraja himself assumed administration. But the Nagar Uprising of 1831 resulted in the East India Company assuming the Mysore administration in 1831, and Mysore came to be ruled by the British Commissioners for 50 years.

### **Modern Mysore**

The prince, who was a great scholar and lover of literature, spent the rest of his life in literary and artistic pursuits. The Mysore court became a major centre of Renaissance in Karnataka. He founded the Raja School for teaching English in 1833, which became the nucleus of the Maharaja's high school and later Maharaja's College (1879). He also started a lithographic press, Ambavilasa (1841) and started printing books in Kannada.

Of the Commissioners that ruled Mysore between 1831 and 1881, two are the most notable viz., Mark Cubbon (1834-61) and Lewin Bowring (1862-70). To these two goes the credit of making Mysore a modern State by organizing the administration on European lines and bringing it on par with the other districts in the British Presidencies. They also encouraged education by increasing the number of schools. By building roads and railways, and by introducing the telegraph, an infrastructure was provided for industrial progress, which they had not anticipated.

The year 1881 saw the Rendition, when Chamarajendra Odeyar, the adopted son of Krishnaraja III, secured the throne. He was assisted by able Diwans like Rangacharlu and Sheshadri Iyer. The first Diwan, Rangacharlu, founded the Representative Assembly in Mysore in 1881, and thus prepared the ground for responsible government. He encouraged Kannada scholarship. The prince was also a great lover of literature and fine arts. The prince died in 1894, and young Krishnaraja Odeyar IV was crowned the king, and the Queen-Mother Vanivilas became the Regent. Sheshadri Iyer continued as Diwan till 1901.

### **Economic Changes**

Diwan Purnayya raised a dam at Sagarakatte to improve irrigation. The first railway line between Bangalore and Jalarpet was laid during the regime of Cubbon, started functioning from 1864. Cubbon was also responsible for the construction of new roads exceeding 2560 kms. in length, with 300 bridges. Coffee plantations, also started by him covered over 1 ½ lakh acres. He also founded the Public Works and Forest Departments. District Savings Bank were started in Princely Mysore in 1870. Rangacharlu got the Bangalore-Mysore rail line ready by 1882. The work on the line was started as famine relief during the severe famine of 1876-78, which took the toll of one million lives in Mysore State alone.

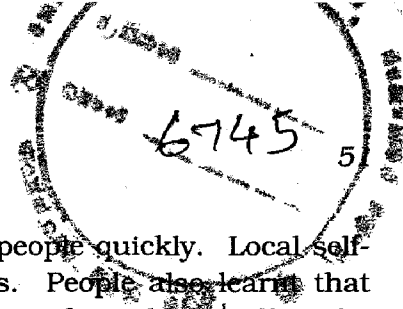
Sheshadri Iyer started gold mining in Kolar region in 1886, created the Departments of Geology (1894), and Agriculture (1898), launched the Vanivilasa Sagara Irrigation Scheme in Chitradurga Dt. The Shivanasamudra Hydro-Electric Project, which supplied power to Kolar Gold Fields in 1902, and Bangalore city in 1905 was the first major project of its kind in India. (In the year 1887, an hydro electric project was started at Gokak in a small scale by Gokak Spinning Mill). The Bangalore Mill was started in 1884 and it was taken over by the Binnys, Bangalore Woolen, Cotton and Silk Mills in 1886.

It was about this time that elsewhere in Karnataka too modern industrialisation started and railway and road transport facilities began to improve. Harihara-Pune railway line was completed in 1888. Mangalore was connected by rail with Madras in 1907. The Gokak Spinning Mill (1885) had been founded by securing power from the Gokak Falls (1887) and Mangalore had some tile factories, first initiated by the Basel Mission (1865), a spinning and weaving mill was also started at Gulbarga in 1888. Gold mining had started in the Hutti region of Raichur District after preliminary investigations in 1886. Hubli and Gadag had many ginning mills by then. Thus Industrialization gave impetus to urbanisation and modernisation. Agriculture was also receiving great fillip because of better irrigation and demand for raw materials. The 'Cotton Boom' of the 1860s of the American Civil War days gave impetus to raising cotton crop, and though demand from Manchester fell after the 1860s, new factories founded at Bombay and Sholapur did purchase cotton from North Karnataka area. But spinning, a domestic industry which provided jobs to lakhs of women by assuring a wage equal to a farm worker, was totally destroyed after the Industrial Revolution, and so was weaving. Thus pressure on land increased.

### **Anti-British Uprisings**

Karnataka did not tamely submit to the foreign rule of the British. There were anti-British violent uprisings between 1800 and 1858. The earliest of these was of Dhondia Wagh, who after the fall of Tipu, unfurled the flag of revolt against the British in 1800 from the Bidanur-Shikaripur region; many former princes joined him. His revolt spread from Jamalabad to Sode in Coastal Districts and above the Ghats upto Belgaum and Raichur Districts. He was killed at Konagal in September 1800, and his colleague Krishnappa Nayak of Belur (Balam) was killed in February 1802. This was followed by the Koppal Rebellion led by one Virappa in 1819. The year 1820 saw the Deshmukh rebellion near Bidar. A strong revolt was witnessed at Sindhagi in Bijapura District in 1824. The revolt of Kittur Channamma in 1824 and of Sangolli Rayyanna in the same kingdom in 1829 are also famous. This was followed by the Nagar Uprising of 1830-31 accompanied by similar agrarian revolts in the Kanara District in 1831. Sarja Hanumappa Nayak of Tarikere also joined the insurgents. Though this revolt failed, it cost Krishnaraja III his throne. There was an uprising in Kodagu during 1835-37, which was also strong in Dakshina Kannada (Sullya and Mangalore). One former official of the Peshwa called Narasappa Petkar organized a revolt against the British in 1841. Karnataka responded to the 1857-58 uprisings positively. In Nov. 1857, the Halagali Bedas revolted against the Arms Act. The rulers of Naragund and Surapur, joined by Mundargi Bheemarao, a Zamindar and the Desais of Govanakoppa, Hammige, Soraturu etc, also revolted in 1858. There was a long revolt in Supa jointly led by men from Goa and Uttara Kannada who included some Siddis (Negroes) in 1858-59.

Though the uprisings were suppressed, their lessons were not totally forgotten. It was the Nagar Uprising which resulted in the founding of Mysore Representative Assembly in



1881. The British learnt to respond to the grievances of the people quickly. Local self-governing bodies in towns were founded in 1850s and 1860s. People also learnt that without proper organisation, it is not possible to free the country from the British. The British also felt the need to improve the means of transport and communication to enable them to meet situations of breach of peace. Communication facilities served their colonial economic purposes also.

### **Beginning of Renaissance**

The new administration everywhere helped the spread of modern education. Christian Missionaries also started education on Western lines. There were over 2000 primary schools in Mysore by 1881. Bombay Karnataka area had over 650 primary schools by that time. Though there were only Marathi schools in Bombay Karnataka, men like Elliot and Deputy Channabasappa strove to introduce Kannada medium. A college was started at Bellary in 1869. A Government college was founded at Bangalore in 1870 (named Central College in 1875) and later Bangalore saw a second institution, the St. Joseph's College, in 1882. The Maharaja's College of Mysore was started in 1879. The Government College of Mangalore was founded in 1869, followed by the St. Aloysius College in 1879.

Christian Missionaries started printing in Kannada as early as 1817 (first from Serampore near Calcutta) and the first newspaper named 'Mangaluru Samachara' was started by the Basel Mission in 1843. Many old Kannada classics were printed. All these developments helped literary activity on new lines. Prose became popular and secular themes appeared in literature.

Many newspapers and journals were published in Kannada. They include 'Kannada Samachara' (Bellary 1844), 'Chandrodaya' (Dharwad 1877), 'Karnataka Prakashika' (Mysore 1865) and 'Arunodaya' (Bangalore 1862). These are a few of the many such efforts. Lyrical poetry in Kannada also came to be composed, beginning with the prayer songs composed by the Missionaries. Mysore court also encouraged many writers. Mudramanjusha (1823) by Kempunarayana was the first important prose work. Many English and Sanskrit plays were translated. The first original Kannada social play was Iggappa Heggadeya Prahasana (1887) by Venkatarama Shastry. The first original Kannada social novel was Suryakanta (1892) by Gadagkar, though social novels had been translated from English, Marathi and Bengali too by then.

The stage and music also were influenced by these changes. New drama troupes came into existence at Gadag (1874) and Halasangi and there was a troupe at Mysore too. The visit of Marathi troupe from Sangli in 1876-77 and the Victoria Parsi Company in 1878 to Karnataka revolutionized stagecraft here. Veena Venkatasubbayya, Sambayya and Chikkaramappa were some of the great veena masteroes in the Mysore court at this time. A distinct Mysore school of Karnatak music was evolved during this period.

In architecture, Western impact was seen. The Central College building (1860) in the Gothic style, the Athara Kachery (1867) with ionic pillars and the Bangalore Museum Building (1877) in the Corinthian style were built during this period. The Basel Missionary introducing light tiles from Mangalore revolutionised architectural patterns. Churches too introduced the Western style. Our Lady of Sorrow Church (Mangalore 1857), St. Mary's Church (Shivajinagar, Bangalore, 1882), St. Joseph's Seminary Church (Mangalore 1890) and St. Mary's Church (Belgaum, 1869) are some such early examples.



Many social movements stirred Hindu society and social changes received an impetus. The propoganda of the Christian missions was also responsible for this, especially of the newly founded Protestant missions, though in a negative way. The Theosophical Society started its work in Mysore State in 1886, Brahma Samaj started its activities at Bangalore in 1866 and also at Mangalore in 1870. This was followed by the Depressed Classes Mission, founded by Kudmul Ranga Rao at Mangalore in 1897, which started many schools for the depressed classes. Bangalore had the Indian Progressive Union in 1894. Mysore State banned the marriage of girls below eight. Sheshadri Iyer started separate schools for the untouchables as they were hesitating to attend other regular schools. The Maharani's school for girls founded in 1881 at Mysore by Palace Bakshi Ambil Narasimha Iyengar became a high school in 1891 and the Maharani's College in 1901. The Ramakrishna Mission was founded in Bangalore in 1904. These developments mainly helped emanicipation of women and attempted eradication of untouchability.

It was in this atmosphere that the history of the State also came to be written. Fleet's *Dynasties of Canarese Districts* (1882), Bhandarkar's *Early History of Dakhan* (1884), Rice's *Epigraphia Carnatica* volumes (beginning from 1886), *Indian Antiquary* volumes from 1872 and Sewell's *A Forgotten Empire* (1901) helped the recovery of Karnataka's history, and made the people of Karnataka feel proud of their hoary past. This paved the way for the high renaissance and the national awakening in the 20<sup>th</sup> century.

The Karnataka Vidyavardhaka Sangha of Dharwad (1890), the Mythic Society of Bangalore (1909), the Karnataka Ithihasa Samshodhana Mandala of Dharwad (1914) further helped the Renaissance. An all-Karnataka literary and cultural forum was founded in 1915, and this was the Karnataka Sahitya Parishat, with its headquarters in Bangalore. It had the active support of the Mysore Government and its president, H.V. Nanjundaiah also became the Vice-Chancellor of the newly founded Mysore University (1916). Aluru Venkatarao wrote *Karnataka Gata Vaibhava* in 1917, introducing to the Kannadigas in Kannada, the history and cultural achievements of Karnataka. Written in a tone highly charged with emotion, the work played an important role in inculcating national feelings. He was the Father of the Karnataka Unification Movement also.

### **Modernisation**

Princes of Mysore were all enlightened administrators and their genuine interest in the progress of the State, won them the affection and respect of the people. All of them were patrons of learning, literature, music and other fine arts. Krishnaraja Wodeyar IV, who ruled from 1902 to 1940, led an unostentatious life and combined piety with a modern outlook. During his reign the state made rapid progress in all directions. His younger brother Kanthirava Narasimharaja Odeyar, the Yuvaraja of Mysore, was also a generous patron of fine arts; for many years he was the Honorary President of the Kannada Sahitya Parishat. His son, Jayachamaraja Odeyar, who came to the throne in 1940, proved as enlightened as his uncle. When the country won independence, Mysore acceded to the Indian Union. Jayachamaraja Odeyar served as Governor, and won an enduring place in the heart of the people

The Diwans in charge of the administration in Mysore made the principality not only a modern state but a model state, as already observed. Diwan P.N. Krishnamurthy

(1901-06) improved the administration by introducing up-to-date methods followed in British India in office procedure and maintenance of records, and he founded the Co-operative Department in 1906. The next Diwan V.P. Madhava Rao, founded the Legislative Council (1907), the second chamber, and took measure for forest conservation. The Central Co-operative Bank was also his creation. A great economist and administrator, Sir. M. Visveswaraya became the Diwan in 1912. He was a man of vision and a dynamic administrator and during his brief period of administration, he founded many industries and undertook such progressive and far-reaching administrative measures that he came to be known as "the Maker of Modern Mysore". The Mysore Chrome Tanning Factory (1918), Sandalwood Oil Factory of Mysore (1916), Government Soap Factory in Bangalore and the Wood Distillation Factory at Bhadravati were also founded by Sir.M. Visveswaraya. The iron unit at Bhadravati was also his brain-child. He founded the Engineering College at Bangalore (1917), the Agricultural school (1913), the nucleus for the future University of Agricultural Sciences), the Medical school at Bangalore (1917), and the Mysore University (1916). The Mysore Bank was also started in his time (1913) and so was Mysore Chamber of Commerce (1916).

Another important Diwan was Sir Mirza M. Ismail (1926-41) who was responsible for making Mysore one of the best known Princely States in India by expanding its industries, founding new ones and undertaking major irrigation projects. Mysore State served as a strong nucleus of Karnataka by its economic progress and cultural achievements.

Plantation industries was expanded both in Mysore and Kodagu. Kannambadi project commissioned when Sir Mirza was the Diwan, gave impetus to sugarcane growing and helped the founding of sugar-factories at a later date. Under Diwan Mirza Ismail, the Cauvery Upper Canal was commissioned, benefiting over one lakh acres of land. Industrialization in Mysore was in full swing. The Bhadravati Iron factory had been founded by Sir. M. Visveswaraya and Sir Mirza Ismail expanded it by adding a steel unit.

The District Savings Banks, attached to District Treasuries were started in 1870. Bangalore saw three banking companies in 1868, and a total of 24 such institutions were seen by 1876 in the city, though not many survived. Chitradurga Savings Bank was founded in 1870. Madras Presidency Bank had founded its branch at Bangalore in 1864. South Kanara had its Banking Companies like the Canara Bank, (Mangalore) (1906) and Corporation Bank (Udupi) (1906). Later came the Pangal Nayak Bank (1920), Jayalakshmi Bank (1923), Karnataka Bank (1924), Udupi Bank (1925), Catholic Bank (1925), Vijaya Bank (1925) and the Syndicate Bank (1925). The Town Co-operative Bank was started at Hospet in 1915. Dharwad District saw many Co-op. Societies beginning with the one at Kanaginal in 1906, most of them in present Gadag district. The Dharwad D.C.C. Bank was started in 1916. Co-operative movement also made great strides in Kodagu, Udupi and Dakshina Kannada.

Tile industry was expanded in South Kanara and cashewnut husking units were also started in 1924 such as the Pierce Leslie and the Mallya Cashew. Beedi rolling in Coastal region and agarbati production in Mysore State were started as domestic industries in an organised way. The Swadeshi Movement gave a fillip to industrial activity in the British districts of Karnataka. A big oil mill viz., B.T. Mills, was started at Davangere in 1918, and several cotton ginning factories had been started in the town, even earlier to this.

Sir Mirza Ismail was responsible for the founding of many new industries in Mysore State as already noted. He founded the cement and paper factory at Bhadravati, the sugar factory at Mandya, the Belagola Chemical and Fertilizers factory (the first of its kind in India) and the glass and porcelaine factories at Bangalore to mention only a few. It was he who initiated plans to produce power at Shimsha and Jog and the most important industry initiated during his time was Hindustan Aircrafts in 1940. Kaiser-I-Hind Wollen Mill had started production in 1922, and it was followed by the Minerva Mills. Thus industrialisation was in full swing, and the Second World War gave a further fillip. At Harihara was started the Mysore Kirloskars machine shop in 1941. The Davanagere Cotton Mills started in 1939 gave a fillip to the founding of more such mills in the town. Sugar factory was founded at Hospet in 1935, followed by the Munirabad Sugar Mills in 1944. The Faruk Anwar Oil Mill was started at Raichur in 1944, Oil mills, soap units, saw mills, etc, came to be founded in small towns too. Banks and the Co-operative sectors provided the necessary finance.

### **Cultural Developments**

The High Renaissance of the 20<sup>th</sup> century saw many great developments in the field of music, drama, painting and literature. The Mysore court patronized great artistes like Veene Sheshanna, Lakshminarayanappa, Bakshi Subbanna, Vasudevacharya, Mutthayya Bhagavatar and Bidaram Krishnappa. The younger generation also had its great masters like T. Chowdaiah, who evolved the seven stringed violin, and B. Devendrappa. There were great classical dancers like Jatti Thayamma and Muguru Subbanna in princely Mysore. In the field of drama, Mysore saw great artistes like Varadacharya, Gubbi Veeranna, Subbayya Naidu, and Smt. Malavalli Sundaramma. There were equally great artistes from North Karnataka area like Shirahatti Venkoba Rao, Garuda Sadashiv Rao and Vamanarao Master. Kailasam and Ballari Raghava were great amateur artistes. Kannada films, too, appeared. The North Karnataka area had great Hindusthani vocalists like Savay Gandharva (Rambhau Kundgolkar), Panchakshari Gavayi, Puttaraja Gavayi and Mallikarjuna Mansur. Painting also received patronage at the hands of the Mysore prince. The Prince K. Venkatappa to Shantiniketana for training and this painter won world renown. He was also a sculptor. Another noted sculptor from Mysore was Siddalingaswamy. The Chamarajendra Technological Institute (Mysore) was founded to train artists and Jaganmohan Palace was converted into an art gallery. The traditional Gudigaras of the Malenadu (Sagar-Sirsi area), imbibing modern techniques and ideas, started producing fine figures in wood and ivory, which secured a world market. Their handiwork can be seen in the decoration of Mysore palace and Vidhana Soudha.

The Renaissance had its impact on literature too. Prose writing became popular and journalism also grew. Several forms of literature-the short story, the essay, the novel, drama and lyrical poetry, for instance-developed in Kannada. Masti Venkatesha Iyengar, Panje Mangesha Rao, M.N. Kamath and Kerur Vasudevacharya were some of the early short story writers followed by 'Ananda' 'Anandakanda', A.R. Krishna Sastry, K. Gopalakrishna Rao, Krishnakumar Kallur, 'Anakru' (A.N. Krishna Rao). 'Bharatipriya' (Venkata Rao), Gorur Ramaswamy Iyengar, Dr. R.S. Mugali, Gauramma and 'Raghava' (M.V. Seetharamaiah). Shivaram Karanth and 'Anakru' (A.N. Krishna Rao) are the two celebrated novelists. English Geethegalu (1921) by B.M. Srikanthaiah is the first collection of modern Lyrics in Kannada. He was followed by Govinda Pai, Dr. D.V. Gundappa, Dr. Bendre, P.T. Narasimhachar,

G.P. Rajarathnam, Panje Mangesha Rao, Kadengodlu Shankara Bhatta, Dr. V. Sitharamaiah, Dr. V.K. Gokak and Dr. K.V. Puttappa. Govinda Pai was the pioneer in discarding the rhyme (1911). Modern Kannada play had its pioneers like B.M. Srikanthaiah, Samsa, Kailasam, Sreeranga and Shivaram Karanth.

Publication of *Epigraphia Carnatica* volumes covering epigraphs from all districts by Rice and R. Narsimchar is a pioneering and unparalleled achievement of the erstwhile Mysore State. Dr. R. Shama Shastry (who discovered Kautilya's *Arthashastra*), and Prof. M. Hiriyanna by their Indological studies, brought world fame to Mysore and Karnataka.

Printing became wide spread. Newspapers played an important role, helping literary growth, spreading modern and scientific ideas, propagating patriotism and progressive social views and trying to encourage everything that is good in arts. In Mysore, M. Venkatakrishnaiah was running '*Vritthantha Chinthamani*' (1885). The '*Mysore Standard*', the '*Mysore Star*' etc. were some other newspapers from Mysore State. Coastal Karnataka had the '*Suvasini*' (1900), The '*Krishnasukti*' (1905) and the '*Swadeshabhimani*' (1907). '*The Karnataka Vrittha*' (1890), (edited by Mudavidu Krishna Rao), the '*Kannada Kesari*' (Hubli 1902) the '*Rajahamsa*' (Dharwad, 1891) and *Karnataka Vaibhava* (Bijapur 1897) were the periodicals from North Karnataka. The freedom movement stimulated the publications of many new newspapers.

### **Fight for Freedom**

The freedom movement and the demand for Unification of Karnataka became very strong in Karnataka after 1920. They are the climax of the trends witnessed in renaissance Karnataka. The freedom movement influenced literature, journalism, arts, industries and even society. It sponsored with great zeal, the programme of eradication of untouchability and emancipation of women. The achievement of social unity and undoing on a large scale of caste prejudices was also the work of the movement. The *Veerashaiva Mahasabha* (1904), the *Okkaligara Sangha* (1906) and other such organisations helped to spread education and the creation of a consciousness of their rights among the backward classes. In 1917 was founded the *Praja Mitra Mandali* in Mysore and in 1920 *Brahmanetara Parishat* at Hubli with similar goals. Though these movements were against Congress which spearheaded freedom struggle, in the long run, they whole-heartedly joined Congress in its struggle for freedom.

Four persons (one from Belgaum and three from Bellary) from Karnataka went to attend the first session of Congress at Bombay in 1885. The impact of Bala Gangadhar Tilak and his journal '*Kesari*' on Karnataka was great. The Bombay State Political Conferences were held in Kannada districts, at Dharwad (1903), Belgaum (1916) and Bijapur (1918). There was picketing of liquor shops in Belgaum in 1907 (during the *Swadeshi* movement, following '*Vangabhang*' or Partition of Bengal) and 15 people were imprisoned. National schools were founded at Belgaum, Dharwad, Hubli, and Bijapur. Theosophists earlier had founded the National High School at Bangalore in 1917.

The first Karnataka State Political Conference was held at Dharwad in 1920, and according to its decision, nearly 800 people from Karnataka attended the Nagpur Congress in 1920. At Nagpur, Karnataka secured a separate provincial Congress committee (1921). Gangadhararao Deshpande of Belgaum was the first K.P.C.C. President.

Non-Co-operation Movement of 1921-22 saw many lawyers giving up their practice and many students boycotting schools and colleges. Khilaphat Movement was also launched with this. Nearly 50 national schools were started in Karnataka and over 70 persons from the British Districts courted arrest. Picketers were fired on in Dharwad and Bangalore, and three Khilaphat workers died in Dharwad and two in Bangalore Cantonment. A worker from Karnataka, Dr. Hardikar, organised Hindusthani Seva Dal, a voluntary corps with Hubli as its all-India headquarters. The Belgaum Congress of 1924, presided over by Gandhiji was a grand success, and was greatly responsible for public awakening in the State. Gangadhararao Deshpande, Hanumantarao Kaujalgi and Shrinivasarao Kaujalgi of Bijapur, Tekur of Bellary and Karnad Sadashivarao of Mangalore were some of the early leaders of Congress from Karnataka.

The Civil Disobedience Movement launched by Gandhiji in 1930 began with Salt Sathyagraha at Ankola, followed by various programmes of law breaking like jungle sathyagraha, picketing of liquor shops, non-payment of pasture tax (hullubanni) and finally No-tax Campaign when peasants refused to pay land revenue. Over 2,000 people courted arrest in the British districts, Belgaum District's quota being the biggest, 750. The movement was resumed in 1932 after the nine-months lull following the Gandhi-Irvin Pact, with greater vigour. The No-tax Campaign launched in Siddapura and Ankola taluks was an epic struggle. The lands of over 800 families were confiscated and 1000 people went to jail in Uttara Kannada alone; among them were one hundred women, and most of them were illiterate and even conservative widows with shaven heads. They got their lands back only in 1939, and till then they suffered in silence.

Programmes and propaganda to eradicate untouchability were launched in Karnataka, when Gandhiji undertook a fast over the issue in 1932. The highlights of the programme were taking Harijans to the Marikamba Temple of Sirsi and to the Basavangudi of Bangalore. Gandhiji also toured Karnataka as a part of his programme of upliftment of Harijans in 1934 and 1936. Harijan Sevak Sangh's Karnataka unit was founded with Sardar Veeranagauda Patil as the President.

Though there were no agitations in Princely States till 1937, the people of Mysore State founded Mysore Congress in that year, and launched the Flag Satyagraha in 1938. The Vidhurashwatha tragedy followed soon after in which 10 were killed by police fire. This was followed by the movement for responsible government in 1939. T. Siddalingaiah, H.C. Dasappa, S. Siddayya, K.C. Reddy, H.K. Veeranna Gowda, K.T. Bhashyam, T. Subramanyam, K. Hanumanthaiah, S. Nijalingappa, M.N. Jois and Smt. Yashodhara Dasappa were some of the important leaders of Mysore Congress. Similarly the Hyderabad Congress was launched in 1938, and it made a strong demand for responsible government. Likewise in other Princely States of Karnataka also a strong demand for responsible government was launched, under the guidance of the National Congress.

### **"Quit India" 1942-43.**

The Quit India Movement saw unprecedented awakening in Karnataka. Students in all colleges and schools went on strike. Labourers in Bangalore and other places, numbering over 30,000, also struck work for over two weeks. Over 50 people (of whom 11

from Bangalore alone) fell victims to firing by the police. Seven from Bailhongal, seven from Davangere, six from Shravanabelgola were martyrs of the Quit India Movement. Death of Mailara Mahadevappa and two of his companions in Haveri District was a serious tragedy. The Isur village in Shimoga Dt. which demonstrated unbridled fury against the British had five of its heroes hanged. A total of 15,000 people (out of which 10,000 from Princely Mysore alone) went to jail in 1942-43 from Karnataka. Dharwad and Belgaum area evidenced heroic sabotage and subversive works by organised group of patriots, which became famous as "Karnataka Pattern" praised even by Jayaprakash Narayan.

Even after India becoming free in 1947, Hyderabad could be liberated only after the Police Action in 1948. Among the men who organised Congress, Ramananda Teertha, Janardanrao Desai, G. Ramachar, Krishnacharya Joshi, A. Shivamurthy Swamy and Sharanagouda Inamdar were the noted leaders from Hyderabad Karnatak area. In Mysore State an agitation called "Mysore Chalo" was launched for the establishment of responsible government. The agitation succeeded, and a team of ministers headed by K.C. Reddy as the Chief Minister, took charge of the administration in October, 1947. K.C. Reddy was succeeded by K. Hanumanthaiah (1952) and Kadidal Manjappa (1956) as Chief Ministers in the erstwhile Mysore State. To Hanumanthaiah goes the credit of raising Vidhana Saudha, the biggest building in granite of modern times.

Daily newspapers like the 'Taruna Karnataka' (Hubli), the 'Samyuktha Karnataka', (Belgaum, and later Hubli), the 'Janavani', the 'Tayinadu', 'Navajeevana', 'Veerakesari' and 'Vishwa Karnataka' (all from Bangalore) and 'Kodagu' (Weekly) from Madikeri rendered yeoman service to the movement. Women also came to the fore and participated in processions and the picketing of liquor shops and pro-British establishments braved lathi blows and went to jail with babies in arm. Mention can be made of Kamaladevi Chattopadhyaya, Umabai Kundapur, Krishnabai Panjekar, Yashodhara Dasappa, Siddamma Ballari and Gauramma Venkataramaiah who were in the forefront of the movement.

### **Unification of Karnataka**

After independence, a persistent effort had to be made for the Unification of Karnataka. The movement for Unification, had been, infact, launched together with the movement for freedom in Karnataka.

Karnataka had been distributed among as many as 20 administrations before independence, and the handicaps and sufferings of the people of Karnataka in those days were severe. In a Kannada area like Mudhol, ruled by a Maratha Prince, there were no Kannada schools and the administration was conducted in Marathi. This was the case with many Maratha States. In Hyderabad State, Urdu dominated. In big British presidencies like Bombay or Madras, where Kannada districts were few and the Kannadigas were in a minority, their sufferings were many. They had no just share in the development activities. They could not secure minimum facilities like roads or bridges. Everywhere the voice of the Kannadiga was a voice in the wilderness.

The Renaissance had also created a strong yearning for Unification. Dharwad was the centre of the movement, and Alur Venkatarao was the brain behind it. He had supporters like Mudavidu Krishnarao, Kadapa Raghavendra Rao and Gadigayya Honnapurmath. The Karnataka Sahithya Parishat was founded (1915) at Bangalore partially by the efforts of

these people, and it provided a forum for the writers and intellectuals of Karnataka. The writers and journalists met annually at the Kannada Literary Conference organised by the Parishat and finally the first Karnataka State Political Conference at Dharwad (1920) decided to agitate for Unification through the Congress organisation too. The Nagpur Congress agreed to establish the K.P.C.C. in that year. Thus Unification, initially an idea of the Kannada writers and journalists, secured the support of the politicians. The first Unification Conference was held at Belgaum in 1924 during the Belgaum Congress, with Siddappa Kambli as its president. Nine such conferences were held till the dawn of Independence, and afterwards, Karnataka came under five administrations in 1947. (1) Bombay (2) Madras States, (3)Kodagu, (4) Mysore and (5) Hyderabad, (instead of 20). Minor Princely States like Jamkhandi, Ramadurg, Mudhol, Sandur etc. numbering 15 have been merged with neighbouring districts soon after Independence.

From 1947, Unification was a demand that had to be urged upon the Government of India. But this also had to be a serious movement. In 1953, the Akhanda Karnataka Rajya Nirmana Parishat, a newly founded party with K.R. Karanth as the President, had to launch a serious Sathyagraha and 5,000 people courted arrest. Finally, the Fazl Ali Commission was appointed, and according to its recommendations, united Karnataka came into existence on the 1<sup>st</sup> November 1956, and was named as Karnataka, a long cherished aspiration of the Kannadigas in 1973.

### GENERAL ELECTION RESULTS

The election results in the State reflect the political mood and changes in the administrative set up of State. While furnishing the results for the 1957, 1962 and 1967 elections, political parties which have secured seats in the elections alone are mentioned. After 1972 the number of candidates contested and elected from each party and the percentage of votes obtained by them are also given. Since 1998, election statistics given here include details relating to male and female contestants of each party also.

**Lok Sabha, 1957:** (Total No. of seats 26) (Double member constituencies 3) Indian National Congress - 23; Praja Socialist Party - 1; Scheduled Castes Federation - 1 ; Independents - 1.

**Legislative Assembly, 1957:** (Total No. of seats: 208) (Double member constituencies - 29) Indian National Congress - 149; Praja Socialist Party - 18; Scheduled Castes Federation- 2; Peasants and Workers Party -2; Communist Party of India- 1 ; Independents - 36.

**Lok Sabha, 1962:** (Total No. of seats-26) (Double member constituencies were abolished) Indian National Congress - 25; Lok Sevak Sangha - 1.

**Legislative Assembly, 1962:** (Total No. of seats - 208;) (Double member constituencies were abolished) Indian National Congress - 138; Swatantra Party - 8; Praja Socialist Party - 20; Maharashtra Ekikarana Samiti -6; Lok Sevak Sangha -4; Communist Party of India - 3; Socialist Party -1; Independents -28.

**Lok Sabha, 1967:** (Total No. of seats-27) Indian National Congress-18; Swatantra Party-5; Praja Socialist Party-2; Samyukta Socialist Party-1; Independents-1.

**Legislative Assembly, 1967:** (Total No. of seats – 216) Indian National Congress –123; Praja Socialist Party-22; Swatantra Party-17; Samyukta Socialist Party –6; Bharatiya Jan Sangh –4; Communist party of India –1; Independents –41.

**General Elections to the Lok Sabha, 1971**

Name of the Party	No. of seats contested	No. of seats won	Percentage of votes polled
1	2	3	4
National Congress (J) (Later R)	27	27	70.87
National Congress (O) (NCN)	17	–	16.36
Socialist Party	1	–	1.03
Jan Sangh	2	–	1.90
Communist Party	1	–	0.68
Praja Socialist Party	5	–	1.27
Swatantra Party	5	–	3.66
Independents	44	–	4.23
<b>Total</b>	<b>102</b>	<b>27</b>	<b>100.00</b>

**General Elections to the State Legislative Assembly, 1972**

1	2	3	4
Indian National Congress (I)	212	165	52.17
Indian National Congress Organisation (O)	176	24	26.22
Bharatiya Jan Sangh	102	–	4.30
Socialist Party	29	3	1.69
Swatantra Party	28	–	0.57
Communist Party of India (CPM)	17	–	1.03
Communist Party of India (CPI)	4	3	0.99
Janata Paksha (JP) (A local party)	2	1	0.16
Independents	250	20	12.87
<b>Total</b>	<b>820</b>	<b>216</b>	<b>100.00</b>

**General Elections to the Lok Sabha, 1977**

1	2	3	4
Indian National Congress (I)	28	26	56.80
Bharatiya Lok Dal (BLD) (Janata Party)	28	2	38.89
Communist Party of India	3	–	0.40
Republican Party of India (K)	2	–	0.33
Independents	37	–	2.58
<b>Total</b>	<b>98</b>	<b>–</b>	<b>100.00</b>



**General Elections to the Legislative Assembly, 1978**

1	2	3	4
Indian National Congress (I)	214	149	44.25
Janata Party (former BLD)	222	59	37.95
Indian National Congress (O)	212	2	7.99
Communist Party of India	6	3	1.19
Communist Party of India (M)	10	-	0.50
Republican Party of India	2	1	0.18
Republican Party of India (K)	7	-	0.12
Dravida Munnertra Kazhagam	3	-	0.13
All India Anna DMK	4	-	0.16
Independents	485	10	7.53
Total	1,165	224	100.00

**General Elections to the Lok Sabha, 1980**

1	2	3	4
Indian National Congress (I)	28	27	56.25
Indian National Congress (Urs)	27	-	16.69
Janata Party	28	1	22.93
Janata Party (S)	12	-	1.22
Communist Party of India	1	-	0.25
Communist Party of India (M)	1	-	0.22
SUCI	1	-	0.01
Independents	92	-	2.43
Total	190	28	100.00

**General Elections to the Legislative Assembly, 1983**

1	2	3	4
Janata Party (JNP)	194	95	33.90
Indian National Congress (INC)	221	82	40.42
Bharatiya Janata Party (BJP)	110	18	7.93
Communist Part of India (CPI)	7	3	1.25
CPI (CPM or Marxist)	5	3	0.90
AIADMK 1	1	0.13	
Independents and others	747	22	16.28
Total	1,365	224	100.00

**General Elections to the Lok Sabha, 1984**

1	2	3	4
Indian National Congress	28	24	51.63
Janata Party (JNP)*	23	4	35.05
Bharatiya Janata Party (BJP)	6	-	4.67
Communist Party of India	2	-	1.00
Communist Party of India (M)	1	-	0.10
Lok Dal (LKD)	7	-	0.49
Independents	267	-	7.03
<b>Total</b>	<b>334</b>	<b>28</b>	<b>100.00</b>

\* Headed by Chandrashekhar at the National Level

**General Elections to the State Legislative Assembly, 1985**

1	2	3	4
Janata Party	207	139	43.38
Indian National Congress	224	66	41.10
Bharatiya Janata Party	117	2	3.84
Communist Party of India (CPI)	8	4	1.08
Communist Party of India (CPM)	7	2	0.86
Indian Congress (Socialist) (ICS)	5	-	0.08
Lok Dal (LKD)	37	1	0.42
Republican Party of India (RPI)	-	-	-
All India Anna DMK	2	-	0.18
Independents	1188	11	8.57
<b>Total</b>	<b>1795</b>	<b>224</b>	<b>100.00</b>

**General Elections to the Lok Sabha, 1989**

1	2	3	4
Indian National Congress	28	27	48.90
Janata Dal (JD)	27	1	28.34
Janata Party (JP)	26	-	10.59
B.J.P.	5	-	2.55
C.P.I.	1	-	0.77
L.D. (B)	4	-	0.52
Karnataka Rajya Raitha Sangha (KRRS)	10	-	2.69
Republican Party of India	3	-	1.24
Others and Independents	138	-	6.95
<b>Total</b>	<b>242</b>	<b>28</b>	<b>100.00</b>

**General Elections to the Legislative Assembly, 1989**

1	2	3	4
Indian National Congress	219	176	43.77
Janata Dal		208	24
27.30			
Janata Party	215	2	11.40
Bharatiya Janata Party (JP)	119	4	4.13
Karnataka Rajya Raita Sangha (KRRS)	111	2	3.63
C.P.I.	18	-	0.59
Communist Party of India (CPM)	7	-	0.54
A.I.A.D.M.K.	1	1	0.18
Muslim League	13	1	0.43
Republican Party of Indian (RPI)	10	-	0.10
Bahujan Samaja Party (BSP)	4	-	0.03
Independents and others	1086	12	7.90
Total	2011	222	100.00

**General elections to the Lok Sabha, 1991**

1	2	3	4
Indian National Congress (INC)	27	22	41.98
Bharatiya Janata Party (BJP)	27	4	28.68
Janata Dal (JD)	20	-	18.55
Janata Party	6	1	3.95
C.P.I.	1	-	0.66
Communist Party of India (CPM)	1	-	0.19
Lok Dal (LD)	2	-	0.02
Karnataka Rajya Raita Sangha	10	-	3.84
Independents and others	269	-	2.13
Total	363	27*	100.00

\* Election to Dharwad South Parliamentary Constituency was countermanded due to the death of an Independent candidate.

**General Elections to the Legislative Assembly 1994**

1	2	3	4
Janata Dal	221	115	33.56
Bharatiya Janata Party	223	40	17.00
Indian National Congress	223	36	27.40
C.P.I. (M)	13	1	0.49
C.P.I.	8	-	0.23
Janata Party	36	-	0.16
AIADMK	4	1	0.24
Bharatiya Republican Party	3	1	0.13
Bahujan Samajwadi Party	78	1	0.76
Karnataka Congress Party	218	10	7.28
Karnataka Rajya Raita Sangha (KRRS)	112	1	2.73
Independents and others	1,358	18	10.04
<b>Total</b>	<b>2,497</b>	<b>224</b>	<b>100.00</b>

**General Elections to the Lok Sabha, 1996**

1	2	3	4
Janata Dal	27	16	34.91
Bharatiya Janatha Party	28	06	24.85
Indian National Congress	28	05	30.29
C.P.I. (M)	01	-	0.38
C.P.I.	01	-	0.38
Janata Party	05	-	0.20
AIIC (T)	07	-	0.24
Bahujan Samajwadi Party	03	-	0.15
Bharatiya Nethaji Party	02	-	0.01
Karnataka Congress Party	11	01	3.10
Kannada Chalavali Vatal Paksha	02	-	0.18
Independents and others	863	-	5.31
<b>Total</b>	<b>978</b>	<b>28</b>	<b>100.00</b>

**General Elections to the Lok Sabha, 1998**

Name of the Party	No. of seats contested			No. of seats elected			Percentage of votes polled
	Men	Women	Total	Men	Women	Total	
1	2	3	4	5	6	7	8
Bharatiya Janata Party	17	01	18	13	-	13	26.94
Indian National Congress	27	01	28	09	-	09	36.22
Janata Dal	27	01	28	03	-	03	21.69
Bahujan Samajawadi Party	06	-	06	-	-	-	0.56
Samatha Party	03	01	04	-	-	-	0.08
C.P.I. (M)	01	-	01	-	-	-	0.04
C.P.I.	01	-	01	-	-	-	0.06
C.P.I. (ML)	01	01	02	-	-	-	-
Lokashakti	08	02	10	03	-	03	11.50
Karnataka Vikasa Party	19	-	19	-	-	-	1.76
Others (14 Minor Parties)	19	-	19	-	-	-	0.39
Independents	61	03	64	-	-	-	0.76
<b>Total</b>	<b>190</b>	<b>10</b>	<b>200</b>	<b>28</b>	<b>-</b>	<b>28</b>	<b>100.00</b>

**General Elections to the Legislative Assembly, 1999**

1	2	3	4	5	6	7	8
Indian National Congress	210	13	223	126	06	132	41.06
BJP	144	05	149	44	-	44	20.69
JD (U)	108	04	112	19	-	19	13.52
JD (S)	193	10	203	09	-	09	10.42
C.P.I. (M)	8	-	08	-	-	-	0.39
C.P.I.	11	-	11	-	-	-	-
Bahujan Samajawadi Party	84	01	85	-	-	-	-
KCVF	7	02	09	-	-	-	-
AIDMK	11	02	13	01	-	01	-
KRRS	9	-	09	-	-	-	0.04
Independents	450	25	475	19	-	19	11.78
Other Parties (13)	43	-	43	-	-	-	-
<b>Total</b>	<b>1,278</b>	<b>62</b>	<b>1,340</b>	<b>218</b>	<b>06</b>	<b>224</b>	<b>100.00</b>

### General Elections to the Lok Sabha, 1999

1	2	3	4	5	6	7	8
Indian National Congress	25	3	28	16	02	18	45.41
Bharatiya Janata Party	17	2	19	7	-	07	27.18
Janata Dal (U)	10	-	10	3	-	03	13.25
Janata Dal (S)	24	3	27	-	-	-	10.85
C.P.M	1	-	1	-	-	-	0.08
B.S.P.	6	-	6	-	-	-	0.65
ADMK	4	1	5	-	-	-	0.25
Others (5 Parties)	8	-	8	-	-	-	0.52
Independents	24	2	26	-	-	-	01.81
Grand Total	119	11	130	26	02	28	100.00

Source : Chief Election Officer, Karnataka, Bangalore.

### Governors of Karnataka from 1956

1.	Jayachamaraja Odeyar	1956 to 1964
2.	Gen. S.M. Srinagesh	1964 to 1965
3.	V.V. Giri	1965 to 1967
4.	G.S. Pathak	1967 to 1969
5.	Dharmavir	1969 to 1972
6.	Mohanlal Sukhadia	1972 to 1976
7.	Uma Shankar Dixit	1976 to 1977
8.	Govind Narain	1977 to 1983
9.	A.N. Banerji	1983 to 1988
10.	P. Venkatasubbaiah	1988 to 1990
11.	Bhanu Pratap Singh	1990 to 1991
12.	Khursheed Alam Khan	1991 to 1999
13.	V.S. Ramadevi	1999 till date

### Chief Ministers of Karnataka from 1956

Chengalaraya Reddy	25.10.1947	30.03.1952
K. Hanumanthaiah	30.03.1952	19.08.1956
Kadidal Manjappa	19.08.1956	31.10.1956
S. Nijalingappa	01.11.1956	19.04.1957
	19.04.1957	16.05.1958
B.D. Jatti	16.05.1958	09.03.1962
S.R. Kanthi	14.03.1962	20.06.1962
S. Nijalingappa	21.06.1962	05.03.1967
	05.03.1967	28.05.1968
Veerendra Patil	29.05.1968	18.03.1971
President's Rule	27.03.1971	20.03.1972
D. Devaraj Urs	20.03.1972	31.12.1977
President's Rule	31.12.1977	28.02.1978
D. Devaraj Urs	28.02.1978	07.01.1980
R. Gundu Rao	12.01.1980	06.01.1983
Ramkrishna Hegde	10.01.1983	29.12.1984
	08.03.1985	13.02.1986
	16.02.1986	10.08.1988
S.R. Bommai	13.08.1988	21.04.1989
President's Rule	21.04.1989	30.11.1989
Veerendra Patil	30.11.1989	10.10.1990
S. Bangarappa	17.10.1990	19.11.1992
Veerappa Moily	19.11.1992	11.12.1994
H.D. Devegowda	11.12.1994	31.05.1996
J.H. Patel	31.05.1996	11.10.1999
S.M. Krishna	11.10.1999	till date



## **Chapter III**

### **PEOPLE**

**G**eographically Karnataka occupies the centre tableland of the Deccan Plateau. At times, it has been termed as an anthropological museum, where the people of different racial traits are seen. Apart from the so-called Dravidians and Indo-Aryan races, the land has notable strains of people of other categories. The Muslim dynasties that ruled over the region attracted considerable number of Turks, Afghans and other people from the Middle-East. Proximity to Goa made many run-away Negro slaves from that region to come and settle down on the territory bordering Goa, especially in Uttara Kannada and these people are called Siddhis. Of late, certain settlements of the Tibetans have also come into existence. Some places on the coast like Bhatkal has people of Arabic origin, having settled down there for centuries.

The Christian population here have a considerable strain of European element in them, as the Portugese in Goa had married local women and considerable sections of Goan Christians have migrated to Karnataka. The contact of the coastal people had with the Arab traders helped their co-mingling with the local population. The various racial elements including the indigenious, the various religious movements and regional customs have helped in evolving a Karnataka culture which has shaped the life of the people.

#### **Demography**

According to 1991 census Karnataka with an area of 1,91,791 sq km. has a population of 44,977,201 with 22,951,917 males and 22,025,284 females. Karnataka State ranks eighth among the 27 States and 7 Union Territories in the Indian Union both in respect of area and population as per 1991 census and Karnataka's population constitutes 5.8% of India's population.

As can be seen from the trends in growth of population, there was a fall in growth and a decrease during 1911-21 due to epidemics, plague and influenza. In the 30 years between 1901 and 1931 the population increased only about a million and a half. The rate of growth of population has accelerated from 1951 onwards. The percentage growth rate of population during 1981-91 was 21.12 (Rural 17.65 and Urban 29.62) as against 26.76 during 1971-81 (Rural 19.07 and Urban 50.65). Among the districts, during 1981-91, Bangalore District has recorded the highest growth rate 38.44 per cent and Kodagu has registered the lowest rate of 5.57 percent.

The district wise population of the State in 1991 and the percentage of decennial increase between 1981 and 1991 are as follows: Bangalore (48,39,162-38.44%); Bangalore Rural (16,73,194-15.23%); Belgaum (35,83,606-20.24%); Bellary (18,90,092-26.92%); Bidar (12,55,799-26.12%); Bijapur (29,27,900-21.91%), Chikmagalur (10,17,283-10.37%); Chitradurga (21,80,443-22.67%); Dakshina Kannada (26,94,264-13.31%); Dharwad (35,03,150-18.93%); Gulbarga (25,82,169-24.12%); Hassan (15,69,684-15.57%); Kodagu



(4,88,455-5.75%); Kolar (22,16,889-16.34%); Mandya (16,44,374-15.96%); Mysore (31,65,018-21.92%); Raichur (23,09,887-29.49%); Shimoga (19,09,663-15.27%); Tumkur (23,05,819-16.58%); and Uttara Kannada (12,20,260-13.83%).

The Districtwise population table of 27 districts of the state is given at the end of the Chapter. In addition, the related latest census figures of 2001 also are appended. .

**Sex Ratio:** The sex ratio is defined as the number of females for every 1000 males in a given area. The sex ratio of population in 1991 was 961 females for every 1000 males. The rural ratio was 975 females for every 1000 males and that of the urban sex ratio was 930, as compared to the figures to that of 1981 (Rural 978, Urban 926; Total 963). The sex ratio has almost remained the same for the total population of the state with a slight decrease in the number of females whereas in the rural areas the ratio was higher and in the urban areas it was a little less during 1981. During 1991, the districtwise sex ratio was as follows: Bangalore (904); Bangalore Rural (950); Belgaum (959); Bellary (966); Bidar (954); Bijapur (965); Chikmagalur (979); Chitradurga (944); Dakshina Kannada (1063); Dharwad (945); Gulbarga (962); Hassan (1000); Kodagu (989); Kolar (966); Mandya (964); Mysore (953); Raichur (980); Shimoga (961); Tumkur (959) and Uttara Kannada (967). These figure indicate that the sex ratio in the districts of Bangalore Rural, Chitradurga, Dharwad, Bidar and Mysore was less that the State's average and Malnad has a higher sex ratio than other areas. Hassan district has a balanced sex ratio whereas in Dakshina Kannada the number of females is more (1063) for every 1000 males.

**Density of Population:** The number of persons for every square kilometre area is called the density of population. The density of population in the state was 235 in 1991 as against 194 in 1981 which is less than that of the country (273 in 1991 as against 230 in 1981). Among 25 states in the country Karnataka occupies the 13th position in density.

According to 1991 census among the districts of the state, Bangalore District has registered the highest density of 2,195 persons per sq km and the lowest of 118 persons per sq.km. being shared by Kodagu and Uttara Kannada districts. The density of population in the urban areas of Bangalore district in 1991 was 11,453 per sq km and next comes Chitradurga district which has a density of 10,000 per sq km in the urban areas. Apart from Bangalore, Dakshina Kannada and Mandya districts have a density of more than 300 persons per sq km. Those with a density between 250 and 300 are Bangalore Rural, Belgaum, Dharwad, Kolar and Mysore districts; with a density between 200 and 250 are Bidar, Chitradurga, Hassan and Tumkur. Bidar, Hassan, Mysore, Tumkur and Raichur districts have an urban density of more than 5,000.

**Marital status :** According to 1990-91 census the total number of married person under the age group 15-44 in the state was 1,32,55,542 (56,59,555 males 75,95,999 females) and the percentage of these figures to the total population was 64.24% (53.75% for males and 75.05% for females).

**Urbanisation:** Karnataka stood 10<sup>th</sup> in the descending order in the level of urbanisation in 1981 census and has moved to 11<sup>th</sup> rank in 1991 census among the States and Union Territories in India. The rate of urbanisation is faster in Karnataka when compared to India. This trend has been observed highest from 1901 till 1991. In the 1991 census, there are 306 places in the State classified as towns as against 281 towns in 1981 census. The State is becoming steadily more urbanised. It has a larger proportion of its population living in urban areas, than the average for the country as a whole. The districtwise total number of towns as per 1991 census was as follows: Bangalore (33); Bangalore Rural (9); Belgaum (22); Bellary (12); Bidar (5); Bijapur (18); Chikmagalur (10); Chitradurga (10); Dakshina Kannada (27); Dharwad (20); Gulbarga (19); Hassan (13); Kodagu (9); Kolar (15); Mandya (11); Mysore (18); Raichur (13); Shimoga (16); Tumkur (12); and Uttara Kannada (14).

**Urban Agglomeration and Cities:** There were 22 Urban Agglomerations in Karnataka as per 1991 census and they were Bangalore, Mysore, Mangalore, Belgaum, Gulbarga, Davanagere, Bijapur, Shimoga, Tumkur, Raichur, K.G.F., Bhadravathi, Hospet, Bidar, Udupi, Hassan, Chitradurga, Gangavathi, Shahabad, Sirsi, Arsikere and Wadi. The number of towns in each class and their growth rate during the decade 1981-1991 in the State are as follows: Class I- population 1,00,000 and above (21, + 42.14), Class II- population 50,000 to 99,999 (17, +47.34); Class III- population 20,000 to 49,999 (82,+28.71); Class IV-population 10,000 to 19,999 (70, +27.27); Class V – population 5,000 to 9,999 (2.08, -5.85) and Class VI population less than 5,000 (24, +23.42); the first figure indicates the number of towns and the second figure indicates the growth rate.

**Rural Areas:** The rural areas include all villages and areas such as forest, and settlement not falling within the limits of a village. They comprise all areas not classified as Urban. A village without any inhabitants is referred to as 'uninhabited' or 'bechirack'. Bechirack literally means 'without any lights'. According to 1991 census the districtwise rural population and the percentage to the total population in the districts are as follows: (The first figure in the bracket indicates the rural population and the second figure indicates the percentage to the total population of the district).

Bangalore (6,69,909-13.84%); Bangalore Rural (13,69,908-81.87%); Belgaum (27,41,820-76.81%); Bellary (13,25,692-13%); Bidar (10,10,096-80.43%); Bijapur (22,39,244-76.48%); Chikmagalur (8,45,422-83.11%); Chitradurga (15,91,765-73.00%); Dakshina Kannada (19,31,670-71.71%); Dharwad (22,79,259-65.06%); Gulbarga (19,72,366-76.38%); Hassan (12,96,962-82.63%); Kodagu (4,10,514-84.04%); Kolar (16,99,906-76.68%); Mandya (13,77,570-83.77%); Mysore (22,24,724-70.29%); Raichur (18,29,765-79.21%); Shimoga (14,03,621-73.50%); Tumkur (19,23,656-83.43%) and Uttara Kannada (9,25,744-75.86%).

The total number of inhabited villages at each census from 1901 to 1991 is as follows: 1901 – 28,288, 1911 (28,548), 1921 (28,349), 1931 (28,635), 1941 (28,290), 1951 (27,629), 1961 (26,377), 1971 (26,826), 1981 (27,028) and 1991 (27,066).

According to 1991 census the total no. of inhabited villages under different categories is as follows :

Population less than 200 – 35276, population from 200 – 499 – 6159; Population from 500 – 999 – 7427; population from 1000 – 1999 – 5861; population from 2000 – 4999 – 3422, population from 5000 – 9999 – 570 and population above 10,000–00 (refer chapter 1 for village details)

**Migration:** Migration is one of the key factors in changing the size and structure of the population. It may be temporary or permanent. Temporary migration may be seasonal and it may be continued to a period in a year. Generally people from plains move to Malnad districts both during sowing and harvesting seasons and later return to their houses. The migration of females is mainly due to marriages. Other socio-cultural factors like education and employment also contribute for the migration of the people. The number of immigrants from the neighbouring States of Karnataka has increased considerably between 1971 and 1981 and these figures are as follows: Andhra Pradesh by 62,000; Kerala by 60,000; Maharashtra by 67,000 and Tamil Nadu by 1.53 lakhs. There were 11.88 lakh persons hailing from other States in India, 21,394 persons from other Asian countries and 2,859 persons from non-Asian countries as in 1981.

**SC and ST Population:** 'Scheduled Castes' mean such castes, races, or tribes or parts of groups within such castes, races or tribes as are deemed under Article 341 of the Constitution of India. Scheduled Tribes means such tribes or tribal communities as deemed so under Articles 342 of the Constitution. In 1976, the Government of India by an amendment to the Scheduled Castes and the Scheduled Tribes order published a list of Scheduled Castes and the Scheduled Tribes for the whole State of Karnataka. According to 1981 census there are 101 schedule caste and 49 schedule tribes in Karnataka. A vast majority of people of the schedule caste and the schedule tribes live in rural areas. According to 1991 census there were 73,69,279 Scheduled Castes people in the State (54,45,186 in Rural and 17,24,093 in Urban) which is about 16.38% of the total population of the State and there were 19,15,691 Scheduled Tribes people (16,29,496 Rural and 2,86,195 Urban) which is about 4.26% of the total population of the State. Both the Central and the State Government have taken up a number of welfare measures for the upliftment of Scheduled Castes and Scheduled Tribes and voluntary organisations are also functioning for the benefit of the weaker sections of the community. (see Chapter XII - Social Welfare Measures for more details ).

**Disabled Population:** The census of disabled population was stopped since 1941 and however it has been continued during 1981, the International Year of the Disabled. The data on crippled has been collected during 1981 for the first time in the history of Indian Census. According to 1981 census, the disabled population in the State is (the first figure in the bracket indicates for Rural areas and the second figure in the bracket is of the Urban areas) Dumb(14,970; 2,643); Blind(15,162; 2,944) and crippled (15,208; 3,803). For a population of 10,000 there were six totally blind six totally crippled and six totally dumb persons in rural areas and the corresponding figures for the urban areas were three, four

and three respectively. Incidence of disabilities is greater in rural areas than in urban areas and this might be due to the lack of public health services, sanitation, personal hygiene, cleanliness, food and nutrition. The Central and the State governments and many voluntary organisations have come forward with various kinds of programmes for the rehabilitation of the disabled. (See chapter XII - Social Welfare Measures for more details ).

**Literacy:** A person is treated as a literate if he can read and write with understanding in any language. No minimum educational standard or formal education is required. All children of the age group 0-4 are treated as illiterate. The percentage literacy in the State according to 1991 census is 47.05% as against 38.41% in 1981; 31.52% in 1971 and 25.40% in 1961. These figures indicate that there is a steady increase in the proportion of literates to the total population. The trend has been maintained for both male and female literacy in the State. Among the males it has improved from 41.62 percent in 1971 to 48.61 percent in 1981 and 56.41 percent in 1991. Among the females, the literacy percentage has increased from 20.97 percent in 1971 to 27.83 percent in 1981 and 37.31 percent in 1991. The male literacy rate has been increased from 9.9 percent in 1901 to 56.41 percent in 1991 and that of the female literacy rate has increased from 0.6 percent in 1901 to 37.31 percent in 1991. In all the districts, literacy both among the males and females has considerably improved. Newly created Bangalore district has topped the list in the district wise literacy rate in 1991 followed by Dakshina Kannada and Kodagu. Raichur has the lowest literacy rate in the State. The districtwise literacy rate according to 1991 is as follows: Bangalore 65.94%; Bangalore Rural 47.71%; Belgaum 44.10%; Bellary 37.21%; Bidar 36.44%; Bijapur 45.70%; Chikmagalur 52.32%; Chitradurga 46.41%; Dakshina Kannada 65.51%; Dharwad 58.83%; Gulbarga 30.02%; Hassan 48.44%; Kodagu 58.49%; Kolar 42.74%; Mandya 41.18%; Mysore 40.06%; Raichur 28.78%; Shimoga 52.01%; Tumkur 46.41%; and Uttara Kannada 56.44%.

The urban areas under the then existing 20 districts (1991) of the state are as follows : Dakshina Kannada District topped the list (76.7%) followed by Bangalore district 76.3% and Raichur has the lowest rate in the state (34.3%) in the males and females literacy rate Dakshina Kannada dist. topped the list for males (84.8%) and Bangalore District topped the list for females (68.8%).

**Languages:** As many as 15 languages are recognised in our Constitution as the main languages of the country. Though Kannada is the principal language of the state, accounting for more than 65% of the total population (according to 1981 census) there are people who speak some of the other major languages also. According to 1981 census the number of persons speaking some major languages in the State is as follows: Assamese 157; Bengali 10,226; Gujarathi 36,390; Hindi 6,57,561; Kannada 2,41,99,576; Kashmiri 94; Konkani 6,40,738; Malayalam 5,90,709; Marathi 13,91,311; Oriya 2,118; Punjabi 9,536; Samskrita 509; Sindhi 11,597; Tamil 13,85,313; Telugu 29,93,501; Tulu 12,17,834; and Urdu 35,12,831.

According to 1991 census, 66.22% of the population of the state are speaking Kannada Urdu (9.96%) Telugu 7.3%, Tamil 3.84%, Marathi 3.65, Tulu 3.07%, Hindi 1.97%, Malayalam 1.68%, Konkani 1.75%, Coorgi 0.21%.

### Religions

Karnataka is a land of many religions. Every religion has contributed in its own way in shaping the life and activities of the people and promoting the culture of Karnataka. Majority of people in Karnataka are adherent to Hinduism and the other major religions of the State are Buddhism, Christianity, Jainism, Islam and Sikhism. According to 1981 census the population and the percentage of the total population of different religions and religions not stated are as follows: (The first figure in the bracket indicates the population and the second figure is the percentage of the total population). Buddhists (42,251; 0.05); Christians (7,73,500; 2.08); Hindus 3,18,52,029; 85.77); Jains (2,84,508; 0.77); Muslims (41,63,691; 11.21); Sikhs (6,401; 0.02) other religions and persuasions (12,901; 0.04) and religions not stated (433, negligible).

According to 1991 census the population and the percentage of the total population of different religions and religions not stated are as follows : the first figure in the bracket indicates the population and the second figure is the percentage of the total population. Buddhists - (73,012 - 0.16%), Christians - (8,59,478 - 1.91), Hindus - (3,84,32,027 - 85.45), Jains - (3,26,114 - 0.73), Muslims - (52,34,023 - 11.64), Sikhs (10,101 - 0.02), other religions and persuasions (6,325 - 0.01) and religion not stated (36,121 - 0.08)

**Hinduism:** Hinduism comprises of several sects and faiths. The Hindu Code denotes all persons who profess Hindu religion either by birth by Hindu parents or by conversion. All Indians who are not Muslims, Christians, Parsees or Jews, can be termed as Hindus. Hinduism according to Hindu Law includes followers of Vedic tradition, Sikhs, Jains, Buddhists, Veerashaivas, Arya Samajists, Bramhos and the followers of aministic cults including Bhuta worship etc. There are a number of cults and worshipping practices, among Hindus. Gokarna is an important Shaiva centre of great antiquity. Talagunda is one of the oldest among the Shiva shrines of India. Shankaracharya (788-820) visited Karnataka and the Sringeri Peetha is one of the four mathas believed to have been founded by him in India. He preached the doctrine of Monism or Advita, according to which Brahman or the Supreme Being alone is real and the universe is illusory or Maya. He advised people to worship any of the six deities, Shiva, Vishnu, Shakti, Kartikeya, Ganapathi or Surya. In addition to Sringeri, Shankara Mathas were also founded later at Kudali, Shivaganga, Avani and Sankeshwara in Karnataka. Many groups of Brahamanas like the Badaganadu, Mulukanadu, Babburakamme, Hoysala Karnataka, Uluchulukamme, Kota, Karade and Chitpavan are adherents of the school of Shankara in Karnataka.

Veerashaivism is a full blown offshoot of earlier Shaivism. Five Acharyas had earlier taught this cult. It was popularised by Basava (circa 1131-1167), the Treasurer of Kalachuri Bijjala of Kalyana, Basava and his contemporaries preached their religion in Kannada. The Veerashaiva teachers preached through Vachanas (poetic-prose) and they propogated the worship of Shiva and the leading of a life of morality and condemned social evils like caste differences and untouchability. Basava stressed the dignity of labour by his statement 'Kayakave kailasa', ('worship through work') and wanted every Veerashaiva to follow some

useful profession to earn his rightful livelihood. Jedara Dasimayya and Ekantada Ramayya, two saints who had preceded Basava, and contemporaries of Basva like Allama Prabhu, Channabasava, Siddaharama, Madivala Machayya (a washerman), Kakkayya (a cobbler), Hadapada Appanna and women like Akkamahadevi, Akkanagamma, Neelambika and Muktayakka were among those who composed Vachanas, and propounded the philosophy. The Veerashaivas are a major section of people and are recognised by the Ishtalinga they wear on their body. The practice of 'dasoha' led to the starting of free hostels by the Veerashaiva Mathas and in the long run educational institution. The Veerashaivas are rendering yeoman services to the field of education in the state.

Natha Pantha, believed to be a blend of Mahayana Buddhism and Shaivism, was also popular in Karnataka. Natha Pantha Mathas are found in many parts of Karnataka beginning from Handi Badaganath in Belgaum District to Kadre and Vittal in Dakshina Kannada. Adichunchangiri in Mandya was once a centre of this cult. Dattatreya worship (influenced by the Natha Pantha) is a popular cult in Karnataka. Narasimha Saraswathi (1378-1455) believed to be an 'avatara' of Dattatreya had visited Bidar and is described to have cured Bahamani Sultan, Allaudin of some serious sickness. Ganagapur in Gulbarga district, Kurugadda in Raichur District and Baba Budangiri in Chikamagalur district are few notable centres of Dattatreya worship in Karnataka.

Another form of Shaivism that was and is popular in Karnataka is the worship of Mailara and his consort Malachi (Malavva). Centres of this worship are found at Adi and Mangsuli in Bidar district, Mailara in Bellary district, Guddadaguddapur in Haveri district and Bellur in Mandya District. Promoters of this cult, wearing red robes and a cap made of bear skin are found even today and are called Goravas or Vaggayyas.

Vaishnavism in another old religion in Karnataka. Some of the early Ganga rulers were also Vaishnavas. Ramanuja (1017-1137) who was born in Tamil Nadu, came to Karnataka during the beginning of the twelfth century. Ramanuja taught qualified monism or Vishishtadwaitha. Vishnu is the Supreme Deity, accompanied by his consort Lakshmi and she represents divine grace. Lakshmi is the mediator between God and men that is why this religion is called Srivaishvanism. Ramanuja initiated people of all castes into his sect and even admitted the 'untouchables' into the temples on specified days in a year and he made a beginning in the direction of the emancipation of the untouchables. Many fine Vaishanava temples including the one at Belur of the Hoysalas were constructed during this time. Melkote has a famous temple graced by Ramanuja's presence, and Mysore City has the famous Parakala matha of this cult. After Ramanuja came Acharya Madhwa (1238-1317) who was born at Belle near Udupi. He preached the philosophy of Dualism or Dwaita and worship of Vishnu, who is the Supreme Deity according to him. The teachings of both Ramanuja and Madhwa, who propounded Bhakti (devotion) gave an impetus to the Bhakti Movement of North India. He founded the Krishna Matha at Udupi and also started eight Mathas to conduct the worship of the Lord in turns. Uttaradi Matha at Hospet and Raghavendra Brindavana at Mantralaya in Andhra Pradesh are other noted centres of this religion.

Worship of Shakti or the Mother Deity is found in various forms in different parts of the State. Most of the villages have village deities who are believed to protect villages. The epidemics like cholera, small pox, plague etc., are believed to be caused by the anger of the Mother Deities. These deities are also called Gramadevatas under different names like Maramma, Malagamma, Yellamma, Renukamma, Durgamma, Dyamavva and Kalikadevi in different parts of the state. A village deity is often represented by an image, a shapeless stone or some other symbol and in many places, She has a shrine built for Her. There can be wooden images also, some of them gaily painted. Blood sacrifice was also offered to these deities. Yellamma at Saudatti, Kolaramma at Kolar, Marikamba at Sirsi, Mayavva at Chincholi (Belgaum District) and Chandralamba at Sannati are some notable centres of such deities. The Jatra of Madduramma at Huskur (where the priests are from the Scheduled Castes) near Bangalore is attended by scores of thousands.

**Buddhism :** Buddhism was popular in Karnataka from the time of Ashoka. It is believed that Ashoka had sent his Buddhist missionaries to Banavasi. Hiuen- Tsiang who visited Karnataka in about 640 says that Banavasi country had hundred of Viharas. At Sannati and Kanaganahalli (Gulbarga District), remains of Stupas of Shatavahana times have been unearthed. There are Buddhist monuments of Chalukyan times at Badami and Aihole in Bijapur district. Tharabhagavati images have been found at Belgavi (Shimoga Dt) and Koliwada (Dharwad Dt). Many Buddhist remains were unearthed in and around Hampi. Some of the centres of Buddhist worship as in Kadire later were converted into centres of Shaiva worship and Manjushre became Manjunatha. They came under the influence of the Natha Panthis. There are wonderful 10th Century bronze images at Kadire which include Lokeshwara. There is a Mahabodi Society at Bangalore active both in social spiritual activities, of late many SC's have embraced Neo-Buddhism.

**Jainism :** Jainism has been an important religion of Karnataka and it has contributed quite substantially to the culture of Karnataka. Bhadrabahu, the last Shrutakevalin, migrated to Karnataka with a large number of followers including a Maurya prince and spent his last years at Shravanabelgola. Banavasi Kadambas built Jaina basti at Halsa, the ancient Palashika in Belgaum dt. The Gangas highly patronised Jainism, and famous Gomata monolith at Shravanabelagola was erected (Circa 982) by Chavundaraya noted scholar and Ganga general. Bastis were built at Shravanabelgola, Manne and Kambadahalli during the Ganga rule. There were Jaina scholars like Pujayapada (Devanandi) and Kundakunda in the Ganga court and Kannada authors Nemichandra and Chavundaraya were also Jains. The Kadambas, the Rashtrakutas, and Chalukyas of Kalyana were the great patrons of Jainism. Great mathematician Mahavira, the earliest Kannada poets Srivijaya, Pampa, Ponna and Ranna were Jains. Gomata monoliths were erected at Gommatagiri in Hunsur Taluk (Mysore district), Karkala in Udupi dt. (1432), Venuru (1603) and recently at Dharmasthala (1982) in Dakshina Kannada District. The Jains in Karnataka are mostly followers of the Digambara sect and Swetambaras came in recent years from Gujarat and Rajasthan mainly to trade and are found mostly in commercial towns and cities.

**Sikhism** : Sikhism also has left its imprint on Karnataka. Guru Nanak is believed to have visited Bidar and there is Guru Nanak Jhira Sahib in his memory. One of the close disciples (Panch Piyares) of Guru Govind, Bhai Sahib Chand (later known as Sahib Singh), a barber, was from Bidar and he was among the five who were initiated to the Khalsa. Considerable number of Sikhs took service under Hyder and Tipu and many have come and settled down in the cities of Karnataka in recent decades. There are Gururdwaras at Bangalore, Gulbarga and Hubli.

**Islam** : Islam entered Karnataka soon after its propagation in Arabia as Arabs were trading at the ports of Karnataka. Some of the Arabs had settled on the West Coast, and inscriptions speak of them as Tajjikas. As testified by Sanjan plates, the Rashtrakutas had a Tajjika Governor and Arab travellers also speak of Muslim settlement in the major commercial centres of Rashtrakuta empire. Their guild called Hanjamana (Anjuman) is mentioned in the records of the Kadambas of Goa, Alupas of Dakshina Kannada and of Vijayanagara. The Navayats and the Mapilles (Moplas) are the Muslims from Karnataka Coast, who follow the Shafi sect like the Arabs. The Afghan, Turks, Persians etc., are called Dakshni Muslims, who speak Urdu and belong to Hanafi sect. Islam introduced the Persian and the Arabic languages into Karnataka and Dakshni Urdu also developed in the South. Fine Indo-Sarsenic monuments at Gulbarga, Bidar, Bijapur, Sira and Srirangapatna have the pride of place in the history of the arts of Karnataka. The Sufi sect is also popular in Karnataka and the tomb of Bande Nawaz Gesu Daravaz at Gulbarga is highly venerated by all. The Sufi received royal patronage by Bahmani rulers and they were active at Gulbarga, Bidar and Bijapur. The Muslims introduced coffee, paper and *agarbatti* (joss stick) industry into Karnataka. Tipu introduced sericulture.

**Christianity** : With the advent of the Portugese, Catholic Christians entered Karnataka. Portugese founded factories at Mangalore, Kundapura and Honavar where they also tried to secure converts to their religion in the days of Vijayanagara. Inquisition, epidemic and famine forced many Catholic Christians to leave Goa and enter Karnataka and Keladi rulers encouraged their migration as the Christians had acquired new techniques of agriculture and animal husbandry. Keladi Channamma granted a site to build a church at Mangalore. During the beginning of the 19th century, Protestant missions like the Basel Mision, the London Mission and the Wesleyan Mission entered Karnataka. The London Mission was first founded at Bellary in 1810 and from there they came to Bangalore in 1820. The wesleyans started their activites in princely Mysore from 1821 and the Basel Mission started its activity in Mangalore in 1834 and later spread to other places like Dharwad, Hubli, Haveri and Gadag. The Basel Mission started the first Kannada news paper, 'Mangalura Samachara' in 1843 and printed Kannada classics which were found written on palm leaves. Both Catholics and Protestants popularised English education in Karnataka by opening schools at Mangalore, Madikeri, Bangalore, Bellary, Dharwad and Belgaum. They also took up service in the field of healing and ran many hospitals.



**Modern Religious Movements :** The modern religious movements like Brahma Samaj, Arya Samaj, Theosophical Society, Ramakrishna Mission, Chinmaya Mission and Prajapitha Brahma Kumari Ishwariya Vishwavidyalaya have influenced the life of Karnataka by starting their activities in the State. The Theosophical Society started functioning in the State in 1886 with its first Lodge at Bangalore City followed by Bangalore Cantonment Lodge in the same year and subsequently started its branches in various places like Mangalore (1901) and Dharwad (1902). The Ramakrishna Mission was first started at Bangalore in 1904 followed by one at Mysore in 1927. Swami Vivekananda had visited Belgaum and Mysore in 1892 and the then Mysore ruler Chamaraja Wodeyar extended financial help to Swami Vivekananda for his journey to Chicago. A trusted follower of Swami Vivekananda, Alasinga Perumal (1865-1909) was from Chikmagalur and he founded the journal 'Brahmavadin' from Madras at the Swami's instance.

Brahma Samaj opened its first branch in Karnataka at Bangalore in 1866 followed by branches at Mangalore and Mysore. Kudmul Ranga Rao, who started Depressed Classes Mission at Mangalore in 1897 was influenced by Brahma Samaj. Sir Narayan Chandavarkar of the Prarthana Samaj hailed from Honavar in Uttara Kannada.

Arya Samaj started functioning in Mysore State by early 1880s and a branch was opened at Mangalore in 1919 and at Bangalore in 1922. The modern religious movements have not only played an important role in social reforms such as work against untouchability and emancipation of women but also in promotion of moral education. Men like Sir Sheshadri Iyer, the Dewan of Mysore was influenced by these movements and enacted laws aimed at social reform.

### **Festivals and Fairs**

The Hindus have several religious holy days, occasions of festivals and fasts throughout the year. Some of the important festivals for Hindus are: New Year Day or Ugadi (the first day of Chaitra month); Ramanavami (the birth day of Lord Rama, the ninth day of Chaitra); Basava Jayanthi the birth day of Basaweshwara (Akshayatritiya); Shankara Jayanthi; birth day of Acharya Shankara (Vaishaka Shuddha Panchami); Kara Hunnime (full moon day of Jyestha, a festival for peasants); Ashadha Ekadashi (the eleventh day of the bright half of Ashadha); Bheemana Amavasya (New Moon day of Ashadha); Nagapanchami the festival of Serpent God (on the fifth day of Sharavana); Gokulashtami, the birth day of Lord Krishna (the eighth day of the dark fortnight of Shravana); Ganesh Chaturthi (fourth day of the bright half of Bhadrapada when God Ganesh is worshiped); Navarathri or Dasara (first ten days of Ashweeja Masa); Deepavali (thirteenth day of dark half of Ashvija) and the festival of light and day to worship Goddess of Wealth Lakshmi (lasts for five days); Bhogi and Makara Sankranthi (on the 13th and 14th January, respectively); Mahashivarathri (13th or the 14th day of the dark fortnight of Magha, a festival in honour of God Shiva); and Holi or Kamana Habba, marking the death of Kama (God of Love) on the full moon day of Phalguna, marked in places with much noise and gay abandon.

In many places, Navarathri is also celebrated as Nada Habba (National festival) and in Mysore, on Vijayadashmi day (the victorious tenth day), the statue of Goddess Chamundeshvari is taken in a colourful procession to Bannimantapa with all pomp and pageantry, consisting of tableaux of historical episodes, infantry, mounted horses, Bharat Scouts and Girl Guides, NCC., Bharat Seva Dal etc. Rama Navami and Ganesh Chaturthi are marked by public celebrations accompanied by speeches, dance and music recitals. Kodavas have three important festivals like Koil Mahurta, Cauvery Sankramana and Huthri (harvest festival).

The chief Muslim festivals are Id-ul-fitar or breaking the fast, which marks the conclusion of Ramazan; Idul-ul-Zuha or Bakrid which is held on the ninth day of the month called Zil-hajah; and the Shab-e-Barat which is celebrated during the evening of the fifteenth day of the month of Shaban. Moharram is celebrated publicly in many places by honouring symbols called tabuts.

The Christians observe the New Year day, Good Friday, Ascension day, Feast of St. Joseph, Easter Sunday (the Day of Resurrection), birth day of Mary, Christmas (the birth day of Christ), Thanks Giving Day, Harvest festival and church anniversary.

The Jains celebrate most of the Hindu festivals in their own way and according to their own tradition and they give importance for fasting, praying and hearing the recitation of the religious texts. Some of the important festivals observed by them are Chaitra Pratipad (Ugadi) to commemorate the victorious Digvijaya of Bharata, son of Teerathankara Adinatha (Vrishabhadeva); Mahavira Jayanthi (Chaitra Shukla Trayodashi); Dasara (Vijayadashami is believed to be the date when Adinatha attained Kevala Jnana or enlightenment and the date when his son Bharata secured his disc or Chakraratna); Deepavali (celebrated as the date of Mahanirvana of Mahavira and they worship Lakshmi and Jnana Lakshmi) and Shivaratri (celebrated as Jinaratri as Adinatha is believed to have attained salvation on the dark 14th of Magha).

The Sikhs observe Guru Nanak's birth day of Karteeka Pournima and Gurudwara inauguration day at Nanak Jhira, Bidar with enthusiasm and pomp with 'akhand pathan' of Guru Granth Sahib. Kirtan and Satsang attract a large number of Sikhs from many places.

**Jatras:** Every year, the Jatras (fairs) are held in honour of village dieties (grama devathas) generally after the harvest takes place. In Hindu temples, Muslim dargahs, Jain bastis and in other holy places of worship people celebrate annual festivals. Men, women, people of rural and urban areas take part in these jatras with full enthusiasm without discrimination of caste, creed and religion. Itinerary merchants open their stalls to sell toys, sweets, sarees, vessels, bangles and other items during these jatras. Cattle fairs are also held in many places during the jatras and these are the centres of large trade and commerce. Jatras promote social and religious harmony among various sections of the society.

**Districtwise list of some important Jatras and Uruses is given below**

Place	month*	Deity/Saint in whose honour the jatra is held	No. of days	Approximate attendance
1	2	3	4	5
<b>Bangalore dt.</b> Bangalore	Apr.	Dharmaraya (Karaga)	1	5 lakhs
Bangalore	Nov.	Basavanna (Groundnut fair)	1	50,000
Kumarashaila, Hanumanthanagar Bangalore	Aug.	Kumaraswamy	3	3 lakhs
<b>Bangalore Rural dt.</b> Huskur, Anekal tq. Magadi	Feb. Mar. Apr	Madduramma Ranganatha Swamy	1 1	40,000 1 lakh
Melinajuganahalli, Doddaballapur tq.	Dec.	Ghati Subramanya Swamy	1	1 lakh
<b>Belgaum dt.</b> Panth Balekundri, Belgaum tq. Saundatti	Oct. Apr. May Nov. Dec (Bi-annual)	Datta Maharaj  Yellamma devi	3	25,000 More than 1 lakh
Handi Badaganatha Khanapur Tq	Feb. (Shivaratri)	Kalabhairava	2	50,000
Chinchil, Raibag tq.	Feb	Mayakkaa	1	1 lakh
<b>Bellary dt.</b> Mailara, Hadagalli tq.	Apr.	Mailaraligna Swamy	4	2 lakhs
Hampi, Hospet tq.	Nov.	Virupaksha Swamy	4	2 lakhs
Bellary	Feb.	Malleshwara Swamy	7	80,000
Kurugodu, Bellary tq.	Apr.	Basaveshwara	2	50,000
Sandur	Nov.	Kumara Swamy	4	20,000

1	2	3	4	5
Yashvantnagar, Sandur tq.	Apr.	Siddarameshwara	2	50,000
Kottur, Kudligi tq.	Jan. Feb.	Basaveshwara	4	50,000
<b>Bidar dt.</b> Basavakalyan	(Shawwal)	Hazrat Syed Tajuddin Bagsawar Urus	5	25,000
Basavakalyan Humnabad	Apr. May. Dec.	Basaveshwara Veerabhadra	3 7	50,000 30,000
<b>Bijapur dt.</b> Bijapur	Jan. Feb.	Siddeshwara	8	30,000
<b>Bagalkot dt.</b> Sivayogamandir, Badami tq.	Jan. Feb.	Hanagal Kumara Swamy	4	50,000
<b>Chikmagalore dt.</b> Inam Dattatreya Peetha, Chikmagalur tq.	Mar.	Dattatreya-Baba- budan	3	25,000
Antarghatta, Tarikere tq.	Feb.	Durgamba or Antarghattamma	10	1 lakhs
<b>Chitradurga dt.</b> Nayakanahatti, Challakere tq.	Mar.	Guru Thippe Rudra Swamy	15	45,000
<b>Davangere dt.</b> Yalebethur, Davangere tq.	Mar (Once in 3 years) Jan. (Once in 3 years)	Duggamma Marikamba	1 1	80,000 80,000
<b>Dakshina Kannada dt.</b> Dharmasthala	Nov.	Manjunatheshwara	3	1,00,000
<b>Udupi dt.</b> Udupi	Jan.(Once in 2 years)	Lord Krishna Paryaya	7	50,000
Kollur, Kundapur tq. Subrahmanya, Sullia tq.	Nov. Dec.	Mookambika Subrahmanya	10 1	1,00,000 25,000
<b>Haveri dt.</b> Shishwinal, Shiggaon tq.	Mar.	Shishunal Shariff	1	20,000

1	2	3	4	5
Guddaguddapur, Ranebennur Tq.	Sep. Oct.	Mailara Lingeshwara	2	25,000
<b>Dharwad dt.</b> Yamanur, Navalgund tq.	Mar. Apr.	Raja Bagh Savar Urus	1	20,000
Dharwad	Aug.	Ulvi Basavanna	1	30,000
Dharwad	Feb.	Murugendra Swamy	1	30,000
Hubli	Feb.	Siddharudha		1 lakh
<b>Gadag dt.</b> Gadag	Apr.	Thotada Siddhalingeshwara	1	20,000
Mukti Mandira, Dharamkshetra Shirahatti tq.	Feb.	Dharma Rathotsava	7	More than 1 lakh
<b>Gulbarga Dt.</b> Gulbarga	Mar.	Sharana Basavappa	15	1 lakh.
Gulbarga	Zekhaida	Khaja Bande Nawaz	3	1 lakh
Diggi, Shahapur tq.	Aug.	Sangamanath	3	50,000
Ganagapur (Deval) Afzalpur tq.	Feb.	Dattatreya	5	50,000
<b>Hassan dt.</b> Shravanabelagola Channarayapatna tq.	(Once in 12 years)	Mahamastaka- bhisheka of Gomateshwara	13	2-3 lakhs
<b>Kodagu dt.</b> Bhagamandala, Madikeri tq.	Oct. Nov.	Cauvery	2	20,000
<b>Kolar dt.</b> Thoranhally, Malur tq.	Jan.	Sappalamma	10	30,000
Avani, Mulbagal tq.	Feb.	Ramalingeshwara Swamy	10	30,000
Thalakayalibetta, Sidlaghatta tq.	Feb.	Venkataramana Swamy	10	25,000

1	2	3	4	5
Nandi, Chikaballapur tq.	Feb.	Bhoga and Yoga Nandeeshwara	7	40,000
Doddakurugodu, (Viduraswatha) Gouribidanur tq.	Apr.	Viduranarayana	8	40,000
Devaragudipalli, Bagepalli tq.	May.	Gadadam Venkata- ramana	16	30,000
<b>Mandya dt.</b> Melkote, Pandavapur tq.	Mar.Apr.	Chaluaraya Swamy (Vairamudi Utsava)	6	20,000
Adichunchanagiri, Nagamangala tq.	Jan.Feb	Bahirava Swamy	10	30,000
Srirangapattana	Jan.	Ranganatha Swamy	1	25,000
<b>Mysore dt.</b> Chamundi Hills, Mysore	Oct.	Chamundeshwari (Teppotsava and Car Festival)	3	50,000
Talakadu, T.Narasipur tq.	Nov. Dec. (once in 12 Years)	Panchalinga Darshana	7	2 lakhs
Nanjangud	Mar. Apr.	Srikanteshwara	15	75,000
Mudukuthore, T.Narasipur tq.	Feb.Mar.	Mallikarjuna Swamy	3	25,000
<b>Chamarajnagar dt.</b> Mahadeshwara Hills, Kollegal tq.	Oct. Nov.	Malai Mahadeshwara	7	1 lakh
<b>Raichur dt.</b> Raichur	Aug.	Syed Shams Alam Hussain Ali Urus	1	50,000
Devarbhupur, Lingasugur tq.	Feb.Mar.	Amareshwara	1	50,000
<b>Koppal dt.</b> Koppal	Jun	Gavisiddeshwara	5	20,000
Kuknur	May	Gudneshwara	1	50,000

1	2	3	4	5
<b>Shimoga dt.</b> Shimoga	Apr	Kote Anjaneya	3	20,000
Islapura, Shimoga tq.	Jan	Guddakal Siddeshwara	2	80,000
Pillangere, Shimoga tq.	July	Venkataramana	1	30,000
Sagar	Jan (Once in 3 years)	Marikamba	9	40,000
Humcha, Hosanagar tq.	Mar.	Padmavati and Parshwanatha Swamy	1	10,000
<b>Tumkur dt.</b> Siddaganga, Tumkur Yadiyur, Kunigal tq.	Feb Apr.	Siddhalingeswara Siddhalingeswara	10 7	50,000 50,000
<b>Uttara Kannada dt.</b> Banavasi	Dec.	Madhukeshwara	2	1 lakh
Sirsi	Mar (Once in 2 years)	Marikamba Devi	7	1 lakh
Sonda(Swadi), Sirsi tq.	May	Vadiraja	5	25,000
Ulvi, Supa tq.	Jan. Feb	Channabasave- shwara	8	50,000
Gokarna, Kumta tq.	Mar. (Shivaratri)	Mahabaleshwara	1	50,000

**Area and Population (Census 1991)**

Sl. No.	District	Area (Sq.Kms.)	Population			Population		Population	
			Total	Male	Female	Rural	Urban	SC	ST
1.	Bangalore	2190	4839162	2542950	2296212	669909	4169253	7111775	53631
2.	Bangalore (R)	5815	1673194	860231	812963	1369908	303286	326599	49305
3.	Chitradurga	8388	1312717	672849	639868	1095247	217470	285621	222763
4.	Davanagere	6018	1559222	803083	756139	1118714	440508	302344	155600
5.	Kolar	8223	2216889	1126316	1088573	1699906	516983	570400	153019
6.	Shimoga	8465	1452259	739561	712696	981171	471088	236526	32946
7.	Tumkur	10598	2305819	1177233	1128586	1923656	382163	408524	167632
<b>I</b>	<b>Bangalore Division</b>	<b>49697</b>	<b>15359262</b>	<b>7924223</b>	<b>7435039</b>	<b>8858511</b>	<b>6500751</b>	<b>2841789</b>	<b>834898</b>
8.	Belgaum	13415	3583606	1834005	1749601	2741820	841786	406955	83076
9.	Bijapur	10475	1533448	787275	746191	1234015	299433	291513	17360
10.	Bagalkot	6594	1394542	703762	690780	1005229	389313	218349	22175
11.	Dharwad	4230	1374895	710671	664224	652726	722169	124645	23396
12.	Gadag	4627	859042	436321	422721	561085	297957	118850	20534
13.	Haveri	4851	1269213	655426	613787	1065448	203765	167004	61169
14.	Uttara Kannada	10299	1220260	620697	599563	925744	294516	91990	10168
<b>II</b>	<b>Belgaum Division</b>	<b>54513</b>	<b>11235006</b>	<b>5748139</b>	<b>5486867</b>	<b>8186067</b>	<b>3048939</b>	<b>1419306</b>	<b>237878</b>
15.	Bellary	8419	1656000	842300	813700	1125746	530234	311252	147869
16.	Bidar	5448	1245798	643191	612607	1010095	245703	260033	104215
17.	Gulbarga	16224	2582169	1316088	1266081	1972366	609803	610641	106935
18.	Raichur	5559	1351809	683258	668551	1019758	332051	249148	120444
19.	Koppal	8458	958078	483701	474377	810007	148071	148775	59828
<b>III</b>	<b>Gulbarga Division</b>	<b>44108</b>	<b>7803854</b>	<b>3968538</b>	<b>3835316</b>	<b>5937972</b>	<b>1865882</b>	<b>1579849</b>	<b>539291</b>
20.	Chikmagalur	7201	1017283	514526	502757	845422	171861	195852	26534
21.	Dakshina Kannada	4843	1633392	808820	824572	1115818	517574	114272	62493
22.	Udupi	3598	1060872	497436	563436	815852	245020	61276	41666
23.	Hassan	6814	1569684	785144	784540	1296962	272722	273379	1651581
24.	Kodagu	4102	488455	246869	241586	410514	77941	59009	40312
25.	Mandya	4961	1644374	837597	806777	137570	266804	226626	11936
26.	Mysore	6296	2281653	1168291	1193362	1465034	816619	391780	63399
27.	Chamarajanagar	5685	883365	452333	431032	759690	123675	206141	38703
<b>IV</b>	<b>Mysore Division</b>	<b>43473</b>	<b>10579078</b>	<b>5311016</b>	<b>5268062</b>	<b>8086862</b>	<b>2492216</b>	<b>1528335</b>	<b>303624</b>
	<b>State</b>	<b>191791</b>	<b>44977200</b>	<b>22951916</b>	<b>22025284</b>	<b>31069412</b>	<b>13907788</b>	<b>7369279</b>	<b>1915691</b>



**Religionwise Population in the State**

Sl. No.	State/District 1991	Total population	Hindus	Muslims	Christians	Jains	Buddhists	Sikhs	Others
1.	Bangalore	4839162	80.23	13.12	5.68	0.79	0.02	0.10	0.06
2.	Bangalore Rural	1673194	90.88	8.63	0.39	0.07	N.A	0.01	0.02
3.	Belgaum	3583606	85.16	10.13	0.44	4.11	0.03	0.02	0.11
4.	Bellary	1890092	86.92	12.07	0.61	0.296	0.01	0.01	0.08
5.	Bidar	1255799	73.87	19.27	3.15	0.04	3.53	0.06	0.08
6.	Bijapur	2927990	85.55	13.39	0.10	0.89	N.A	0.01	0.6
7.	Chikmagalur	1017283	88.84	8.00	2.54	0.41	N.A	N.A	0.21
8.	Chitradurga	2180443	89.51	9.76	0.28	0.34	N.A	0.01	0.1
9.	Dakshina Kannada	2694264	76.37	14.82	8.15	0.52	0.01	0.01	0.12
10.	Dharwad	3503150	81.56	16.44	0.85	1.00	N.A	0.02	0.13
11.	Gulbarga	2582169	81.75	17.22	0.55	0.19	0.11	0.01	0.17
12.	Hassan	1569684	93.19	5.40	0.92	0.30	0.01	0.01	0.17
13.	Kodagu	488455	82.87	13.63	3.33	0.02	N.A	N.A	0.15
14.	Kolar	2216889	86.85	11.40	1.56	0.16	N.A	0.01	0.02
15.	Mandya	1644374	95.36	3.97	0.41	0.19	0.01	0.01	0.32
16.	Mysore	3165018	90.34	7.31	1.48	0.30	0.48	0.01	0.08
17.	Rachur	2309887	86.12	12.69	0.87	0.20	0.01	N.A	0.11
18.	Shimoga	1909663	87.14	11.03	1.27	0.46	N.A	0.01	0.09
19.	Tumkur	2305819	91.79	7.67	0.26	0.20	N.A	0.01	0.07
20.	Uttara Kannada	1220260	84.45	10.99	3.61	0.26	0.62	0.01	0.06
	<b>KARNATAKA</b>	<b>44977201</b>	<b>85.45</b>	<b>11.64</b>	<b>1.91</b>	<b>0.73</b>	<b>0.16</b>	<b>0.02</b>	<b>0.09</b>

## Chapter IV

# AGRICULTURE AND ALLIED ACTIVITIES

**A**griculture provides the main economic support to the State. The importance Karnataka had given to agriculture is indicated by the statement of famous Kannada poet Sarvajnya who says that *meti vidye* (agricultural science) is superior to *koti vidye* (millions of other sciences). The same poet further states that together with *meti* (agricultural implement), *rati* (spinning wheel) must also turn without stop. This shows that Karnataka had its peasants, specially women, also engaged in spinning as a part time vocation. This has been testified to by many records including travellers like Buchanan (1800) who says that a full-time worker engaged in spinning earned as much as a farm labourer. But Industrial Revolution in England and the tariff policy in Britain resulted in India being reduced to an agricultural country by ruining its weaving industry and other crafts. Consequently those engaged in those crafts had to fall back on agriculture, depending on the limited land available.

In historical times, Karnataka was famous for its rice, ragi and jowar crops and rice was a major export from its coastal ports. Spices like pepper, cardamom, cinnamon, nutmeg, ginger etc., were also grown in plenty, some of them being wild crops. Literary and epigraphical sources speak of its rich rice fields and plantations of coconut, areca and plantains. Ibn Batuta, in 1347, says that the coastal area had very rich rice fields and in their centre were houses surrounded by a garden of flower plants and fruit trees. "These dominions are well cultivated and very fertile" says Domingo Paes who visited Vijayanagara empire during the first part of the 16th century. "This land has plenty of rice and Indian corn, grains, beans, and other kinds of crops which are not sown in our parts; also infinity of cotton. Of the grains there is a great quantity because besides being used as food for men, it is also used for horses, since there is no other kind of barley, and this Country has also much wheat, and that good," Paes adds.

The Portuguese introduced maize, tobacco, groundnut, potato, chillies and tomato from the New World and Karnataka could get the knowledge of these new crops early due to its proximity to Goa, and further Goan Christian farmers migrated to Karnataka in good number, especially to the coastal and Malnad area, Buchanan held in 1800 that the rice grounds here were more "neatly cultivated" than in Malabar.

The British introduced long fibred American cotton in India and especially in Bombay Karnataka. The Cotton Boom of the American Civil War days (1860s) gave an unprecedented fillip to cotton cultivation. Coffee plantations were raised on a large scale by the British during the 19th century.

Though the rulers of Karnataka paid much attention to irrigation, especially tanks, irrigated area did not exceed five percent before the major irrigation works were taken up in our own times.

Agriculture at present is the main source of food for the population and fodder for the cattle besides the source of livelihood for nearly 65 per cent of the population. Agricultural holdings, farm implements, irrigation works and livestock represent the largest fixed capital in the State.

About 69 percent of total population live in rural areas in the State as against 73.9 per cent in the Country. About 38.5 per cent of total population were main workers as against 34.2 per cent in the Country. Among main workers 34.2 per cent were cultivators, 2.9 per cent were agricultural labourers and 3.6 per cent were engaged in livestock, forestry, fishing, plantations and allied activities. In Karnataka, the work participation rate of female (29.3) is higher than in the Country (22.7) as a whole. But this rate is higher in Andhra Pradesh (34.8), Tamil Nadu (30.9) and Maharashtra (33).

In Karnataka, the cropped area is recorded survey-number wise in Rights, Tenancy and Crop Inspection (RTC) by the Village Accountants. During 1997-98 Provisional Report, out of the total reporting area of 190.49 lakh ha, 61.4 per cent was the gross cropped area which included net area sown and area sown more than once. Net area sown was 52.89 per cent, Fallow land accounted for 10.86 per cent. Area under forests formed 16.1 per cent. Land not available for cultivation constituted 10.95 per cent. Other uncultivated land excluding fallows was 9.22 per cent. The net sown area was 107.4 lakh ha in the State as against 1,358.8 lakh ha in the Country. Area available for crop growth in the State was 7.9 per cent of the reporting area for the country.

Category - wise Land use in the State is outlined for selected years in the following table

**Land Utilisation in Karnataka - 1955-56 to 1990-91 in 000 ha.**

	1955-56	1960-61	1970-71	1980-81	1990-91	1997-98
1. Forest	2,707.0 (14.6)	2,708.8 (14.4)	2,89.4 (15.26)	3,033.1 (15.29)	3,074 (16.14)	3,063 (16.14)
2. Land put to non-agril. use	853.4 (4.6)	811.6 (4.3)	937.0 (4.95)	1,066.5 (5.60)	1,188.7 (6.24)	1,284 (6.26)
3. Barren and uncultivable and	844.0 (4.5)	922.8 (4.9)	839.2 (4.43)	844.3 (4.43)	798.6 (4.19)	801 (4.21)
4. Cultivable waste	620.5 (3.3)	656.2 (3.5)	615.2 (3.25)	502.4 (2.64)	446.2 (2.34)	439 (2.34)
5. Permanent pastures and other grazing land	1,744.1 (9.4)	1,739.0 (9.3)	1,619.1 (8.55)	1,345.7 (7.06)	1,097.8 (5.76)	1,005 (5.76)
6. Land under Misc. tree crops & groves	373.9 (2.0)	366.4 (2.0)	310.9 (1.64)	342.9 (1.80)	316.7 (1.66)	313 (1.66)
7. Current fallows	699.1 (3.6)	834.6 (4.4)	811.1 (4.27)	1,458.7 (7.66)	1,289.7 (6.77)	1,671 (5.17)
8. Other fallow land	665.5 (3.6)	513.1 (2.7)	672.1 (3.55)	557.9 (2.93)	457.3 (2.40)	399 (2.26)
9. Net area sown	10,065.1 (54.4)	10,228.4 (54.5)	10,248.1 (54.1)	9,898.6 (51.96)	10,380.7 (54.49)	10,075 (56.22)
10. Total cropped area	10,397.6	10,587.7	10,886.7	10,660.0	11,759.0	11,696
11. Total Geographical area	18,542.6	18,980.1	18,942.9	19,049.8	19,049.8	190.50
a) village papers				(100)	(100)	(100)
b) professional	19,188.0	19,190.1	19,134.5	19,179.1	19,179.1	19,179.1

Source : Directorate of Economic and Statistics.

The State income from Agriculture (average of 1986-89) at current prices was Rs. 4,745 crores as against Rs. 82.191 crores for the Country. The proportion of income originating from agriculture is 35% as compared to 30 per cent in the Country. The per ha average value added amounts to Rs. 4,014 for the State and Rs. 4,646 for the Country. The *per capita* (rural) income from Agriculture was Rs. 1,797 for the State and Rs. 1,564 for the Country.

### Agricultural Census

Agricultural Census is a quinquennial census conducted once in five years since its inception in 1970-71. So far six Agricultural Census have been conducted, the latest being 1995-96. In this census, the number and size of operational holdings were collected both for male and female operational holders separately for the first time. The year 1995-96 was declared as 'Land Records Year'.

The total number of operational holdings as per 1995-96 Agricultural census is 62.21 lakhs and the total area of operational holdings is found to be 121.09 lakh ha. The number and area operated by male is 53.19 lakhs with 105.51 lakh ha while in case of female, the number of operational holdings is 8.94 with 14.13 lakh ha area operated.

The average size of operational holdings for the current census is found out to be 1.95 ha. The average size of operational holdings held by female operational holders was 1.58 ha. which is comparatively less when compared to 2.00 ha of average size holdings held by male operational holdings.

The number of operational holdings under Scheduled Caste group has increased to 7.26 lakhs in 1995-96 and the area operated has increased to 10.38 lakh ha. Under Scheduled Tribe group also the number of operational holdings increased to 3.34 lakhs and the area of operational holdings to 6.61 lakh ha.

The number of operational holdings under individual type has increased to 61.29 lakhs where as the number of operational holdings under joint and institutional types has decreased by 5.7 per cent and 10 per cent respectively. The area of operational holdings has decreased to 118.49 lakh ha in case of individual type, while under joint type, it has been reduced to 2.14 lakh ha. In case of Institutional type, it has decreased to 0.46 lakh ha.

The trends in the distribution of number and area of operational holdings and the average size of the operational holdings since 1970-71 Agricultural Census is given here.

### Trends in number and area of operational holdings

Agricultural Census	No. of operational holding '000		Area of Operational holding '000 ha.		Av Size
	No.	% Change	Area	% Change	
1970-71	3551	-	11368	-	3.20
1976-77	3810	+ 7.3	11357	- 0.1	2.98
1980-81	4309	+ 13.1	11746	+ 3.4	2.73
1985-86	4919	+ 14.1	11879	+ 1.1	2.41
1990-91	5776	+ 17.4	12321	+ 3.7	2.13
1995-96	5221	+ 7.7	12109	- 1.7	1.95

**Trends in No. of operational holdings**

Agril. Census	Marginal	Small	Semi Medium	Medium	Large
1970-71	1081	840	788	623	219
1976-77	1274 (17.8)	888 (5.8)	818 (3.8)	63.2 (1.4)	199 (- 9.1)
1980-81	1489 (16.9)	1057 (19.0)	918 (12.27)	662 (4.7)	183 (- 8.0)
1985-86	1792 (20.3)	1293 (22.3)	1035 (12.7)	646 (- 2.4)	153 (- 16.4)
1990-91	2262 (26.2)	1586 (22.7)	1163 (12.4)	636 (-1.5)	129 (- 15.7)
1995-96	2610 (15.4)	1707 (7.6)	1204 (3.5)	594 (- 6.6)	106 (- 17.8)

**Trends in area of operational holdings**

Agril. Census	Marginal	Small	Semi Medium	Medium	Large
1970-71	549	1221	2205	3792	3601
1976-77	638 (16.2)	1319 (8.0)	2288 (3.7)	3858 (1.7)	3254 (- 9.6)
1980-81	733 (14.9)	1543 (17.0)	2572 (12.5)	4018 (4.1)	2880 (- 11.5)
1985-86	866 (18.2)	1888 (22.4)	2880 (11.9)	3881 (- 3.4)	2364 (- 17.9)
1990-91	1072 (23.7)	2308 (22.2)	3200 (11.2)	3770 (- 2.9)	1971 (- 16.6)
1995-96	1248 (16.4)	2480 (7.5)	3298 (3.1)	3490 (- 7.4)	1593 (- 19.2)

**Trends in Average size of operational holdings**

Agril. Census	Marginal	Small	Semi Medium	Medium	Large	Total
1970-71	0.51	1.46	2.80	6.09	16.43	3.20
1976-77	0.50	1.49	2.80	6.11	16.35	2.98
1980-81	0.49	1.46	2.8	6.07	15.69	2.73
1985-86	0.48	1.46	2.8	6.01	15.45	2.41
1990-91	0.47	1.46	2.75	5.93	15.28	2.13
1995-96	0.48	1.45	2.74	5.88	15.02	1.95

Note : Figures in the brackets indicate per cent change over previous Census.

## Area Under Principal Crops

(thousand hectares)

	Crops	1994-95	1995-96	1996-97	1997-98
<b>I.</b>	<b>Foodgrains (a + b)</b>	<b>7,039</b>	<b>6,856</b>	<b>7,372</b>	<b>7,060</b>
	<b>a) Cereals and millets</b>	<b>5,391</b>	<b>5,336</b>	<b>5,595</b>	<b>5,379</b>
	1. Rice	1,295	1,265	1,359	1,353
	2. Jowar	2,165	1,976	1,999	1,897
	3. Ragi	944	1,020	1,035	939
	4. Bajra	294	400	417	302
	5. Maize	344	365	446	561
	6. Small Millets	105	91	92	75
	7. Wheat	244	219	248	251
	<b>b) Pulses</b>	<b>1,648</b>	<b>1,520</b>	<b>1,777</b>	<b>1,682</b>
	8. Tur	302	424	445	422
	9. Bengalgram	441	293	348	337
	10. Greengram	201	181	318	258
	11. Blackgram	118	127	149	140
12. Horsegram	403	314	321	342	
13. Other pulses	183	181	196	186	
<b>II.</b>	<b>Oil Seeds</b>	<b>2,565</b>	<b>2,617</b>	<b>2,606</b>	<b>2,372</b>
	14. Groundnut	1,200	1,192	1,285	1,040
	15. Sesamum	112	106	114	115
	16. Castor	22	22	23	21
	17. Sunflower	840	1,012	881	929
	18. Other oilseeds	391	285	303	267
<b>III.</b>	<b>Other crops</b>				
	19. Cotton	636	678	660	502
	20. Sugarcane	345	323	282	309
	21. Tobacco	60	60	70	71
	22. Chillies (dry)	168	196	201	196
	23. Coconut	264	279	291	302

## Production of Principal Crops

(thousand tonnes)

	Crops	1994-95	1995-96	1996-97	1997-98
<b>I.</b>	<b>Foodgrains (a + b)</b>	<b>8,111</b>	<b>8,645</b>	<b>9,213</b>	<b>8,036</b>
	<b>a) Cereals and millets</b>	<b>7,490</b>	<b>7,957</b>	<b>8,491</b>	<b>7,540</b>
	1. Rice	3,167	3,024	3,212	3,213
	2. Jowar	1,638	1,717	1,898	1,254
	3. Ragi	1,353	1,618	1,495	273
4. Bajra	118	269	270	133	

	1	2	3	4	5
	5. Maize	988	1,142	1,385	1,511
	6. Small Millets	50	41	41	38
	7. Wheat	176	146	190	118
	<b>b) Pulse</b>	<b>621</b>	<b>688</b>	<b>722</b>	<b>496</b>
	8. Tur	119	202	229	98
	9. Bengalgram	222	142	194	115
	10. Greengram	50	64	60	36
	11. Blackgram	31	90	36	35
	12. Horsegram	149	141	151	163
	13. Other pulses	50	49	52	49
<b>II.</b>	<b>Oil Seeds</b>	<b>1,542</b>	<b>1,744</b>	<b>1,755</b>	<b>1,139</b>
	14. Groundnut*	946	1,139	1,147	707
	15. Sesamum	42	51	44	36
	16. Castor	15	19	25	18
	17. Sunflower	355	395	362	258
	18. Other oilseeds	184	140	177	120
<b>III.</b>	<b>Other crops</b>				
	19. Cotton**	815	963	1009	634
	20. Sugarcane	33,093	27,558	23,374	28,999
	21. Tobacco	45	49	57	62
	22. Chillies (dry)	102	124	161	157
	23. Coconut	13,641	14,509	14,979	15,500

\* In terms of nuts in shells.

\*\* In terms of bales of lint of 170 Kgs each

@ in lakh nuts.

Source : *Statistical outline of Karnataka, 1996-97, Directorate of Economics and Statistics, Bangalore.*

Agriculture in the State is mainly dependent on rainfall as more than 70 to 75 per cent of area depends wholly or partially on rainfall for crop production. The rainfall is not evenly distributed across the area as well as over time, and this gives rise to low productivity in rainfed agriculture. South-West (June to September) and North-East (October to December) monsoons are the important sources of rains. South-West Monsoon constitutes nearly 71 per cent of annual rainfall. During 1998, season-wise normal and actual rainfall in mm is as follows : South West monsoon - 846.6; 1173, North-East monsoon - 199.5; 233, Cold Weather period (January to February)-4.8; nil, and Hot Weather period (March to May)-137.7; 70. As regards the distribution of net area sown under rainfall regions in the State, 66.3 per cent of the area is distributed under low rainfall region and 24.3 per cent of area under medium rainfall region.

The different soils in the State have distinct, varying morphological and physico-chemical properties that have an influence on the unique status of the soils. The extent of coverage of different types of soils is as follows : 1) Shallow black soils (1.3%), 2) Medium

black soils (20.34%), 3) Deep black soils (10.25%), 4) Red sandy soils (29.27%), 5) Mixed red and black soils (11.82%), 6) Red loamy soils (15.14%), 7) Laterite soils and laterite gravelly soils (9.3%) and Coastal alluvial soils (2.58%).

### **Cropping Pattern**

In Karnataka cropped area is recorded survey number-wise in RTC (Record of Rights, Tenancy and Crop Inspection) by Village Accountant and consolidated at village, at taluk and district levels. Major crops grown are grouped as cereals, pulses, oilseeds and cash crops. Out of 1,16,96,181 hectares of total gross cropped area during 1997-98, 45.99% of the area was under cereals, 14.38% under pulses, 20.28% under oilseeds and 6.93% under cotton and sugarcane crops. The remaining 8.5% of the area was under other crops.

Area under cereals has decreased from 62,73,000 hectares during 1960-61 to 53,78,618 hectares during 1997-98. During the same period, area under pulses increased from 13,06,000 to 16,81,587 hectares. The area under oilseeds registered an increase of 11,25,000 hectares from 12,47,000 to 23,71,986 hectares. The total (gross)cropped area had been increased from 1,05,88,000 to 1,16,96,181 hectares.

Paddy, jowar, ragi, maize, bajra and wheat are the cereal crops grown in the State. Ragi, Paddy and jowar occupy about 80% of the area under cereals. Cereal crops are largely grown in Bijapur, Bagalkot, Gulbarga, Raichur, Koppal, Belgaum, Dharwad, Gadag, Haveri, Bellary, Chitradurga, Davangere, Mysore and Chamarajnar districts. Redgram and Bengalgram are the major pulse crops which occupy about 4.5% of the area under pulses. Pulses are largely grown in Gulbarga, Bijapur, Bagalkot, Bidar, Dharwad, Gadag and Haveri districts. Groundnut and sunflower are the important oilseed crops which occupy about 80% of the area under oilseeds. Oilseeds are largely grown in Bijapur, Bagalkot, Gulbarga, Raichur, Koppal, Dharwad, Gadag, Haveri, Chitradurga, Davanagere and Tumkur districts. Cotton is predominantly grown in Dharwad, Gadag, Haveri, Raichur, Koppal, Bellary and Belgaum districts which occupy about 75% of the area under the crop. Sugarcane is largely grown in Belgaum, Mandya, Bijapur and Bagalkot districts.

Paddy is one of the major cereal crops of the State. It is predominantly grown in Shimoga, Dakshina Kannada, Udupi, Uttara Kannada, Raichur, Koppal, Mysore, Dharwad, Gadag and Haveri districts. It was grown in 13.53 lakh ha during 1997-98. Area under this crop increased from 8.78 (1955-56) to 13.53 lakh ha (1997-98). It is cultivated in all the three seasons i.e. *kharif* (76.2%), *rabi* (3.98%) and summer (19.82%). About 9.33 lakh ha of paddy area was under irrigation and 80.2% of area under paddy was sown with high yielding varieties. The yield in kg per hectare under irrigated conditions is 4,286 and unirrigated condition is about 2,546.

Jowar is another major cereal crop grown largely in northern districts. Gulbarga, Raichur, Koppal, Belgaum, Dharwad, Gadag, Haveri, Bellary, Davanagere and Bidar districts account for nearly 90% of the area under the crop. About 18.97 lakh ha of area was under this crop during 1997-98. About 79.1% of the area under this crop was grown in *rabi* season alone. Only 1.43 lakh hectares of this area was irrigated. About 37.1% of the area under this crop was sown with hybrid varieties. The yield obtained from the irrigated crop is 1,898 kg/ha while the yield got under unirrigated crop is only 610 kg/ha.



Ragi is largely grown in southern districts of the State. Predominant ragi growing districts are Bangalore Rural, Tumkur, Hassan, Chitradurga, Mysore, Chamarajnagar, Kolar and Mandya. About 17.45% of the area under cereals was shared by ragi crop. About 9.39 lakh ha of area was under this crop during 1997-98. About six per cent of area was irrigated. About 97% of area was sown with high-yielding varieties. The average yield per ha from rainfed crop is 13.6 quintals.

Maize and bajra occupied 5.61 and 3.02 lakh ha respectively during 1997-98. These two crops together account for 16% of area under cereals. These two crops are largely grown in northern districts of the State. Wheat, another important food crop, is grown in the rabi season. It is also largely grown in northern districts of the State. About 2.51 lakh ha of area was under this crop during 1997-98.

Redgram (tur) is one of the major pulse crop grown in the Kharif season in the State. Gulbarga, Raichur, Koppal and Bidar districts accounted for 70% of the area under this crop in the State. It is mainly grown in rainfed areas. About 4.22 lakh ha of area was under this crop during 1997-98. About 25% of area under pulses was covered by Redgram crop.

Bengalgram is one of the important pulse crop grown in the rabi season. Gulbarga, Bidar, Bijapur, Bagalkot, Dharwad, Gadag, Haveri and Belgaum districts accounted for 86% of area under this crop in the State. About 3.37 lakh ha of area was under this crop during 1997-98. About 20% of the area under pulses was covered by this crop.

Groundnut is an important crop of the State largely grown in Tumkur, Chitradurga, Davanagere, Gulbarga, Dharwad, Gadag, Haveri, Raichur, Koppal, Bagalkot and Bijapur districts. These districts accounted for 69% of the area under this crop. About 10.4 lakh ha was under this crop during 1997-98. About 43.86% of the area under oilseeds was covered by groundnut and only 22.85% of area under this crop was irrigated.

Sesamum is another oilseed crop of the State grown in the Kharif season in rainfed condition only. Gulbarga, Bidar, Koppal and Raichur accounted for 58% of area under this crop. About 1.15 lakh ha was under this crop during 1997-98 and it formed 4.96% of the area under oilseeds.

Sunflower is an important oilseed crop grown in Bijapur, Bagalkot, Raichur, Koppal, Gulbarga, Bellary, Dharwad, Gadag, Haveri, Davanagere and Chitradurga districts. These districts accounted for 84% of the area under this crop. This crop was grown in 9.29 lakh ha during 1997-98 and about 19.3% of the area under this crop was irrigated. About 39.4% of the area under oilseeds was covered by this crop.

Safflower is another important oilseed crop grown in the rabi season in rainfed areas. Bijapur, Bagalkot, Gulbarga, Dharwad, Gadag, Haveri, Belgaum, Koppal and Raichur districts accounted for 91% of the area under this crop. The share of the area under the crop to oilseeds was 5.54%.

Sugarcane is an important commercial crop mostly grown in irrigated areas in the State. Belgaum, Bijapur, Bagalkot, Mandya and Bidar districts accounted for 74.8% of the area during 1997-98. Belgaum district alone covered 45.5% of the area under this crop.

Cotton is an important fibre crop of the State. Dharwad, Gadag, Haveri, Bellary, Belgaum, Koppal and Raichur districts accounted for 81.9% of area under the crop. About 5.02 lakh ha of area under this crop during 1997-98.

**Soil Conservation** : The main objective of soil conservation activity is to arrest the runoff of rain water and there by conserve soil and moisture. It is estimated that 85 lakh ha. of land require soil conservation measures. Soil conservation works include land shaping, contour bunding, bench terracing etc. The area covered under soil conservation measures as at the end of March 1999 was 46.55 lakh ha. The Centrally sponsored soil conservation scheme in the catchments of the River Valley Projects viz, (1) Tungabhadra 2) Nizamsagar and 3) Nagarjunasagar are in operation.

**Seeds** : The State Agricultural Universities are basically responsible for the production and supply of breeder seeds of different crops. In all, there were 73 seed farms in the State. The foundation seeds produced in the departmental farms were being handed over to the Karnataka State Seed Corporation for processing and further multiplication. The role of the private seed industry has been well recognised and they have been provided with all the facilities. Many multi-national Companies are also engaged in seed production. There are two seed testing laboratories, one at Hebbal and another at Dharwad. About 3.64 lakh quintals of certified seeds were distributed during 1998-99. There is one more seed testing laboratory at Lalbagh, Bangalore under the control of the Horticulture department.

**Manures and Fertilizers** : Due to the high cost of chemical fertilizers, the development and use of organic manures assumes great importance. Bio-fertilizers like Rhizobium, Blue green algae, Azatobacter and Azospirillum are being popularised among farming community. Steps are being taken to improve production of rural compost by educating the rural folk to prepare it on scientific lines. Local bodies are engaged in the preparation of urban compost. The consumption of fertilizers which was just 3,960 tonnes of nutrients during 1956-57 has reached a record 11.49 lakh tonnes during 1998-99 in the State. The per hectare consumption of chemical fertilizers is 68 kg which is still lower than the neighbouring Andhra Pradesh and Tamil Nadu States. The Karnataka Fertilizer Concessional Price Scheme implemented from 1992-93, makes provision for the supply of super phosphate, diammonium phosphate, muriate of potash and complex fertilizers at concessional price.

**Plant Protection** : The department of Agriculture has taken a number of steps to popularise plant protection measures such as supplying plant protection equipments and chemicals at subsidised rates. An area of 63 lakh ha was covered under plant protection measures during 1997-98, and about 3000 tonnes of technical grade material was used for plant protection.

**Programmes of Agricultural Development** : The Department of Agriculture has been chalking out various programmes and policies for the development of Agriculture. The department is implementing the thrust programmes in selected districts to increase production of major crops like Integrated programme of Rice Development, Special Foodgrains Production Programme for maize, ragi, jowar and bajra, oilseeds production programme, National Pulse Development Programme etc., Besides the new programmes like *Bhooguna*, *Hanithene* and *Krishi Prashasthi* have been implemented to motivate and to

encourage the farmers for adopting improved agricultural practices and to increase the production and productivity.

Under National Watershed Development Programme in selected 86 taluks for popularising dry farming, soil and water conservation schemes are being implemented. Danida assisted project for training farm women and farm youth especially to teach the skills required in the farm operations were being focussed. Under Special Component Plan, Scheduled Caste and Scheduled Tribe farmers were provided with inputs, implements, plant protection equipments, bullock and bullock carts etc.

**Crop Insurance** : Comprehensive Crop Insurance scheme is in operation since 1985 in all the taluks. The scheme is operated through the General Insurance Corporation (GIC) of India. The coverage in respect of crops insured in the State is shared between GIC and the State Government in the ratio of 2:1. During 1997-98, 3.25 lakh farmers in an area of 5.70 lakh ha insured the crops for a sum of Rs. 18,545 lakhs. About 1,986 lakh rupees were paid as claims to 1.16 lakh farmers.

### Irrigation

The ancient rulers of Karnataka undertook construction of a large number of tanks and paid maximum attention to irrigation. (See Chapter II on history). But in later period Vijaynagar rulers did put up a dam across the Cauvery in 1347 near Talakadu, impounded the waters of Kumudvati rivulet to create Masur Magada (which is over 400 acres in area), dug many canals from the Tungabhadra near the capital and tapped maximum quantity of water for irrigation from rivers. We hear of a hydraulic engineer (*Jalasutradhari*) in one of their records. The Mysore ruler Kanthirava Narasaraja Wodeyar's Bangaradoddi Canal (17th century) drawn from the Cauvery is famous. Chikkadevaraya raised Chunchanakatte dam, a brick work during the same century.

Excavating tanks or their repair was held as a meritorious duty. So wide and systematic was the tank network all over, that one of the Commissioners of Mysore, Bowring says the following of it : "As the country is generally undulating, and intersected by numerous valleys threaded by natural water courses, it occurred to the natives many centuries ago, to dam up the supply thus furnished, in order to irrigate their fields in the dry season, and in this way, as population increased additional land was brought under the plough, a chain of such tanks was formed, gradually increasing in size and capacity as the line was prolonged". He further adds. "In many instances, advantage has been taken of the gorges in hills to throw up colossal embankments, which have withstood with fair success, the floods of centuries". The arrangement was a chain of tanks, in a single catchment area. Every reservoir in the chain received surplus water from the one at the upper level, and thus there was no wastage to point out.

During the pre-independence era, the British and Mysore State Government took up some notable irrigation works such as Krishnarajasagar, Sagarakatte Dam, Dhudpalveir near Gokak, Vanivilas Sagar, Marconahalli and Anjanapur.

The Ultimate irrigational potential in the State at present has been estimated at 55 lakh ha. which forms 51.4 per cent of net sown area. This would comprise of 35 lakh ha. under major and medium irrigation projects, 10 lakh ha. under minor irrigation using surface waters and remaining 10 lakh ha. from ground water sources.

As per the master plans prepared by the State, the ultimate utilisation in Krishna basin is likely to be 1,156 tmc. and the State's use in the Cauvery basin is likely to be 408.62 tmc. The Godavari Water Disputes Tribunal award has resulted in an allocation of 22.37 tmc for its project in the State. The State has presently formulated projects for utilising a total quantum of 103.31 tmc in Palar, Pennar (North and South) and west flowing rivers.

The utilisations committed (for irrigation only) of various river basins upto the end of March 2000 is 1,179.47 tmc comprising the following: a) Krishna basin - 712.06 tmc; b) Cauvery basin - 392.87 tmc; c) Godavari basin - 22.37 tmc and other basins - 52.17 tmc.

The cumulative irrigation potential under major, medium and minor irrigation (surface water) is anticipated to go upto 29.36 lakh ha. during 2000-2001. The projects, both major and medium which have been completed have contributed for the creation of an irrigation potential of 4.64 lakh ha.

#### Source wise Net Irrigated Area

(hundred hectares)

	Source	92-93	93-94	94-95	95-96	96-97	97-98
	1	2	3	4	5	6	7
1.	Canals	9,034	9,345	9,266	9,504	9,183	9,035
2.	Tanks	2,571	2,727	2,489	2,299	2,403	2,395
3.	Wells	4,823	4,874	4,553	4,275	4656	4,501
4.	Bore wells	2,432	2,909	3,575	3,720	3,673	4,109
5.	Other sources	3,086	3,417	3,362	3,225	3,330	3,587
	<b>Total</b>	<b>21,946</b>	<b>23,272</b>	<b>23,245</b>	<b>23,023</b>	<b>23,245</b>	<b>23,627</b>
	% of net area irrigated to net area sown	20.3	21.6	22.3	22.1	21.9	23.5

As against the potential, the net area irrigated during 1997-98 was 23.63 lakh ha. Net area irrigated by canal was the highest with 38.24% of the total irrigated, followed by wells (19.05%), tanks (10.14%), tubewells (17.39%), other sources (10.51%) and lift irrigation (4.7%). About six lakh ha. of land was irrigated more than once bringing the gross area irrigated to 28 lakh ha. Net area irrigated for the country as a whole was 32% of net area sown in 1989-90. In Karnataka, the percentage of net area irrigated to net area sown which was 21.2 during 1991-92 has increased to 23.5 during 1997-98. The Percentage of net area irrigated to net area sown for the state of Tamil Nadu and Andhra Pradesh are 48 and 38 respectively.

The cumulative potential created under minor irrigation from surface water upto 1997-98 was 9.38 lakh ha. All irrigation works having an atchkat of 2,000 ha. are classified as

minor irrigation works. The Karnataka Tank Irrigation Project with the World Bank assistance is being implemented from 1981-82. An amount of Rs. 155 crores is spent upto November 1993 and 73 tank irrigation projects were completed creating a potential of 23,310 ha. Minor irrigation works are also taken up under Ganga Kalyana Scheme, Special Component Plan, Tribal Sub-plan etc., There were about 40,411 minor irrigation works benefiting an atchkat of 8.68 lakh ha. which comprises of 36,555 tanks with an atchkat of 6.59 lakh ha and 4.29 lift irrigation schemes with an atchkat of 88.367 ha and 3,427 other minor irrigation works with an atchkat of 1,20,588 ha.

National Water Management Project in Karnataka aims at improvement of the existing canal system served by reservoirs for increasing the productivity and farm income. The project is estimated to cost Rs. 74 crores. The expenditure incurred upto end of March 1993 was Rs. 47 crores. The Command Area Development programme is intended to tackle the problem of non-utilisation of irrigation potential created and to reduce the gap between potential created and potential utilised. During 1998-99, the area brought under field irrigation channels was 10,530 ha; the area brought under on-farm development works was 17,630 ha and about 8,230 ha was covered under warabandi system.

The total investment upto end of March 2000 on Irrigation in the State is Rs 14,267 crores comprising of Rs. 13,399 on major and medium irrigation and Rs. 868 crores on minor irrigation (using surface waters). This does not include the investment on irrigation prior to plan period i.e., prior to 1951. Upto the end of March 2000 a total irrigation potential of 36,22,921 ha (including 9,08,563 ha of potential from ground waters) is created, bringing the percentage of potential created to net sown area to 33.85%. This comprises of a) 4,53,054 ha under 8 major and 32 medium completed projects, b) 12,88,717 ha under 19 major and 21 medium ongoing projects bringing the total potential under major and medium projects to 17,41,771 ha, c) 9,39,566 ha under completed minor projects using surface waters, d) 33,021 ha under 13,743 small tanks having less than 4 ha ayacut (now with Zilla Parishat) and e) 9,08,563 ha under irrigation from ground water resources.

The National Bank for Agriculture and Rural Development (NABARD) has sanctioned a loan assistance of Rs. 106.98 crores during 1995-96 for completing six medium irrigation projects viz Votehole, Lower Mullamari, Amarja, Chulkinala, Maskinala and Manchanabele under Rural infrastructure Development fund (RIDF-1) upto end of March 2000 Rs. 193.06 crores has been utilised. NABARD has sanctioned a loan assistance of Rs. 50 crores for one major irrigation project viz Bennithora during 1996-97 under RIDF-II.

The State has constituted Karnataka Neeravari Nigam Limited (KNNL) under the Company's Act 1956 with a view to expedite 10 projects under Krishna basin by mobilising additional resources required for the project. The ten projects coming under this Nigam are Malaprabha, Ghataprabha III, Upper Tunga Project, Bhima Lift Irrigation Scheme, Harinala, Markandeya, Singatalur, Hippargi Barrage project, Gandharinala project and Tunga lift Irrigation Scheme. This Nigam has raised Rs 475.32 crores through private issues of bonds/debentures upto March 2000.

The National Hydrology project is taken up with the world bank assistance, since 1996-97. It envisages setting up of reliable and well designed net work in the state for collection of Hydrological and Meteorological data for surface as well as ground water both quality and quantity aspects. The implementation period of this project is six years. The expenditure incurred upto the end of March 2000 is Rs. 5.58 crores.

The state has constituted Krishna Bhagya Jala Nigam Limited during 1994 under the Company's Act of 1956 with a view to expedite the works of Upper Krishna Project and to complete it early by mobilising additional resources required for the project. The Nigam has raised Rs. 2,629.59 crores and spent Rs 3,496.78 crores upto the end of March 2000.

The Water and Land Management Institute (WALMI) is functioning at Dharwad since May 1986 and is conducting training programmes for officers of Irrigation and Agriculture Department and the farmers.

Govt. of India has launched the Accelerated Irrigation Benefit programme (AIBP) during the year 1996-97 for the purpose of early completion of some of the ongoing irrigation projects which have been lingering due to shortage of funds for the last several years. Govt. of India has released Rs. 61.25 crores during 1996-97 and Rs. 87.50 crores during 1997-98. The amount has been spent on five on-going projects viz. UKP Stage-1, Malaprabha, Hirehalla, Ghataprabha III and Karanja. During 1999-2000, the above five projects were continued under AIBP and an expenditure of Rs 160.47 crores was incurred.

Minor irrigation covers both surface and ground water schemes. All irrigation works having an individual atchkat upto 2000 ha are classified as minor irrigation works. District wise details of Minor irrigation tanks in Karnataka is given here.

#### District-wise details of Minor irrigation tanks in Karnataka

	District	Tanks under T.D.B < 4 ha	Tanks under Z.P. 4 - 40 ha	Tanks under M.I > 40 ha	Total tanks	No. of Wells (1975)
1.	Bangalore	98	395	67	560	7,674
2.	Bangalore Rural	435	890	206	1,513	25,782
3.	Tumkur	441	1,200	381	2,022	33,427
4.	Kolar	1,489	2,461	336	4,286	48,919
5.	Chitradurga	8	133	166	307	12,812
6.	Davanagere	76	255	89	420	4,219
7.	Shimoga	2,303	3,414	327	6,044	1,077
8.	Mysore	557	565	99	1,221	2,650
9.	Chamarajnagar	2	87	64	153	5,497
10.	Mandya	224	692	50	966	5,961
11.	Hassan	2,502	2,933	174	5,609	1,826
12.	Chikmagalur	1,122	1,624	122	2,868	1,737
13.	Kodagu	434	679	33	1,146	65
14.	Dakshina Kannada	13	129	2	144	14,565
15.	Udupi	88	443	4	535	15,273
16.	Bellary	39	101	61	201	5,885
17.	Koppal	0	20	44	64	5,071
18.	Raichur	332	223	53	608	4,849
19.	Gulbarga	76	311	134	521	13,429

20.	Bidar	0	15	80	95	11,309
21.	Bagalkot	0	0	49	49	10,913
22.	Bijapur	0	0	92	92	27,487
23.	Gadag	0	4	23	27	4,038
24.	Dharwad	408	496	107	1,011	754
25.	Haveri	721	1,139	262	2,122	4,567
26.	Uttara Kannada	2,258	932	87	3,277	18,905
27.	Belgaum	117	490	210	817	43,264

**Medium Irrigation Projects Under the Control of Minor Irrigation**

Name of the Project		District	Year of completion	Cost in Rs. lakhs	Atchkat (in ha)
<b>I</b>	<b>South Zone</b>				
1)	Gundamgere, Doddaballapur Tq	Bangalore (R)	1980	28	405
2)	Kanva Channapatna Tq	Bangalore (R)	1946	35	2,076
3)	Gayathri, Hiriyur Tq	Chitradurga	1963	40	2,005
4)	Narayanapura Challakere Tq	Chitradurga	1961	34	1,924
5)	Sangenahalli Jagalur Tq	Davanagere	1958	43	648
6)	Ambligola Shikaripur Tq	Shimoga	1964	116	2,955
7)	Anjanapur Shikaripur Tq	Shimoga	1936	21	6,736
8)	Mangala Kunigal Tq	Tumkur	1970	60	850
9)	Marconahalli Kunigal Tq	Tumkur	1940	35	4,560
10)	Sonnaikanahalli Kunigal Tq	Tumkur	1957	21	405
<b>B.</b>	<b>North Zone</b>				
11)	Areshankar Basavana Bagewadi Tq	Bijapur	1957	22	1,255
12)	Kalaskop Bagalkot Tq	Bagalkot	1960	25	1,143
13)	Nagathana Bijapur Tq	Bijapur	1961	15	650
14)	Ramenahalli Sindagi Tq	Bijapur	1958	42	1,943
15)	Chitwadgi Kushtagi Tq	Koppal	1971	41	890
16)	Dharma Mundagod Tq	Uttara Kannada	1964	133	5,668

The recurring droughts during the last decade has resulted in an unprecedented spurt in the ground water usage from just about 2,000 M.cum in 1980-81 to 3600 M.cum in 1990-91 in irrigated sector. Likewise the number of drinking water bore wells increased from about 50,000 in 1981 to 1.58 lakhs by 1998. This extra-ordinary growth has resulted in steep decline of water table in several parts of the State. So the systematic study of the status of ground water, its occurrence, behaviour and remedial measures to be adopted is being undertaken by the Ground Water Cell of Mines & Geology Department.

**Flood Control and Sea Erosion :** Karnataka has a coastline of about 300 km. with narrow beaches. Due to high wave action of sea, the coastline is being eroded. Erosion along the beaches causes loss of valuable coconut plantations and property. Anti-erosion works have been taken up in Dakshina Kannada, Udupi and Uttara Kannada districts since 1979-80. Sea walls were constructed with 200 Kgs armour stones in two layers of coconut leaf mat. permanent measures have been evolved with nylon synthetic filter cloth mesh with flat slopes and 1,360 Kg stones are laid in two layers. It has been identified that about 73 km of sea coast are subjected to sea erosion. A Master Plan to protect these vulnerable reaches at a cost of Rs. 145 crores has been sent to Govt. of India for clearance. An expert committee has been formed to examine designs and suggest works to be taken up along identified reaches of the sea coast. The committee has suggested two designs with individual armour stones weighing 560 and 570 kgs which are now being adopted. A project report for priority reaches for Rs. 40 crores was cleared by the Beach Erosion Board.

### Completed Major and Medium irrigation projects.

Project	Basin	Year of completion	Utilisation in tmc	Irrigation in ha
1	2	3	4	5
<b>A Major Projects</b>				
1. Cauvery Anicut Channels	Cauvery	1900	57.70	77,172
2. Krishnarajasagar	Cauvery	1944	61.20	79,312
3. Nugu	Cauvery	1959	7.7	10,526
4. Ghataprapha I & II	Krishna	1980	32.45	1,39,383
5. Tunga Anicut	Krishna	1956	11.50	8,704
6. Vani Vilas Sagar	Krishna	1908	8.2	9,190
7. Vijaynagar Channels	Krishna	1600	12.05	12,210
Total (1) Krishna Basin			86.70	2,06,991
(2) Cauvery Basin			126.60	1,67,010
Major Projects Total			213.30	3,74,001
<b>B. Medium Projects</b>				
1. Ambligola	Krishna	1964	1.40	2,955
2. Anjanapur	Krishna	1936	2.50	6,736



	1	2	3	4	5
3.	Areshankar	Krishna	1957	0.38	1,255
4.	Bachanki	West-flowing	1974	0.52	1,776
5.	Bhadra Anicut	Krishna	1923	3.10	4,466
6.	Byramangala	Cauvery	1945	1.00	1,619
7.	Chandrampalli	Krishna	1972	1.90	5,223
8.	Chikkahole	Cauvery	1969	0.70	1,650
9.	Chithwadgi	Krishna	1971	0.26	891
10.	Dharma	Krishna	1964	2.20	5,668
11.	Gayathri	Krishna	1963	0.45	2,305
12.	Gokak Canal	Krishna	1897	1.40	5,757
13.	Gundal	Cauvery	1980	1.40	4,048
14.	Hagari Bommanahalli	Krishna	1978	2.00	2,966
15.	Hathikoni	Krishna	1973	0.50	2,145
16.	Hebbala	Cauvery	1972	0.40	1,214
17.	Jambadahalla	Krishna	1968	0.70	1,538
18.	Kalaskop	Krishna	1960	0.33	1,143
19.	Kanakanala	Krishna	1975	0.40	2,064
20.	Kanva	Cauvery	1946	1.20	2,076
21.	Kolchi Weir	Krishna	1953	0.53	1,275
22.	Mangala	Cauvery	1970	0.60	850
23.	Marconahalli	Cauvery	1941	4.00	4,560
24.	Nagathana	Krishna	1961	0.08	650
25.	Nallur Amanikere	Cauvery	1987	0.40	1,300
26.	Narayanapur	Krishna	1961	0.60	1,624
27.	Narihalla	Krishna	1979	0.90	1,512
28.	Rajolibanda	Krishna	1960	1.20	2,380
29.	Ramanahalli	Krishna	1958	0.44	1,943
30.	Soudagar	Krishna	1987	0.26	1,417
31.	Suvarnavathy	Cauvery	1984	3.60	2,833
32.	Teetha	Palar	1987	0.36	1,214
	Total (a) Krishna basin			21.53	59,913
	(b) Cauvery basin			13.20	20,150
	(c) West flowing			0.52	1,776
	(d) Palar			0.36	1,214
Medium Projects Total				35.61	79,053
Major and Medium Projects				248.91	4,53,054

Source : Irrigation in Karnataka, 1999-2000, Irrigation Department, Government of Karnataka.

**Financial and potential progress of on-going Major and  
Medium Irrigation Projects**

Sl. No.	Name of the Project	Financial (Rs. in crores)		Potential (in ha)	
		Latest cost	Expenditure upto March 2000	Ultimate potential	Potential created upto March 2000
<b>A</b>	<b>Krishna Basin</b>				
<b>I.</b>	<b>Major projects</b>				
1.	Upper Krishna I & II	9,066.21	5,329.84	6,22,020	3,07,181
2.	Hippargi	524.21	37.75	59,690	-
3.	Ghataprabha III	871.00	425.13	1,78,064	48,487
4.	Malaprabha	703.71	559.96	2,18,191	1,76,074
5.	Bennithora	195.42	164.15	20,236	8,302
6.	Bhadra	170	167.43	1,05,570	1,05,570
7.	Tungabhadra LBC	319.09	259.30	2,44,381	2,44,199
8.	Tungabhadra RB HLC	79.48	50.29	80,910	70,439
9.	Dudhganga	110.00	12.57	19,668	-
10.	Markandeya	134.53	21.32	32,375	-
11.	Ramthal lift	114.05	-	22,260	-
12.	Bhima flow	185.18	0.49	42,170	-
13.	Bhima Lift	153.00	5.00	24,282	-
14.	Upper Tunga II	832.46	39.40	94,700	-
15.	Singatur	123.00	19.06	20,241	-
	<b>Total Major</b>	<b>13,581.34</b>	<b>7,091.69</b>	<b>17,84,758</b>	<b>9,60,252</b>
<b>II.</b>	<b>Medium Projects</b>				
16.	Amarja	97.50	89.74	8,903	6,639
17.	Lower Mullamari	115.00	101.77	9,713	2,611
18.	Hirehalla	120.81	112.90	8,103	-
19.	Maskinala	38.50	32.78	2,833	-
20.	F.C. to Ranikere	9.49	9.49	3,328	283
21.	Gandhorinala	153.00	26.16	8,094	-
22.	Itagi Sasalwad	12.15	0.53	5,700	-
23.	Upper Mullamari	19.92	19.65	3,279	3,279
24.	Basapur	14.02	1.05	2,276	-
25.	Hodirayanahalla	11.87	0.47	-	-
26.	Kagna	51.91	-	7,689	-
27.	Harinala	30.60	19.38	4,370	-
	<b>Total Medium</b>	<b>14,256.11</b>	<b>7,505.61</b>	<b>18,48,866</b>	<b>9,73,064</b>

	1	2	3	4	5
<b>B. Cauvery Basin</b>					
<b>I. Major Project</b>					
1. KRS Modernisation	390.00	248.14	2,125	-	
2. Harangi	373.00	292.72	53,538	42,682	
3. Hemavati	2,100.00	1,431.49	2,83,596	1,89,194	
4. Kabini	480.00	356.24	87,900	41,083	
5. D. Devaraj Urs Canal	255.00	230.28	32,376	395	
6. Yagachi	239.79	115.43	21,450	1,995	
<b>Total Major</b>	<b>3,837.70</b>	<b>2,674.30</b>	<b>4,80,985</b>	<b>2,75,349</b>	
<b>II. Medium Projects</b>					
7. Manchanabele	67.50	66.31	3,845	1,288	
8. Votehole	47.50	40.29	7,487	7,487	
9. Arkavati	106.50	57.26	6,232	-	
10. Chiklihole	17.35	17.14	1,184	526	
11. Iggalur	70.00	44.29	4,047	3,369	
12. Kamasamudra	18.00	16.28	3,104	800	
13. Hutchnakoplu	19.80	10.89	2,300	-	
14. Uduthorehalla	144.01	102.55	6,273	-	
15. Taraka	51.00	26.66	7,090	7,090	
16. Nanjapur	28.40	2.15	4,050	-	
<b>Total Medium</b>	<b>570.15</b>	<b>383.82</b>	<b>45,612</b>	<b>20,560</b>	
<b>Total Cauvery Basin</b>	<b>4,407.85</b>	<b>3,058.12</b>	<b>5,26,597</b>	<b>2,95,909</b>	
<b>C. Godavari Basin</b>					
<b>I. Major</b>					
1. Karanja	340.00	252.17	35,614	15,580	
<b>II. Medium</b>					
2. Chulkinala	65.70	59.21	4,047	4,047	
3. Manjara Lift	93.21	-	2,752	-	
<b>D. Other Basins</b>					
<b>I. Major</b>					
1. Varahi	122.50	21.28	15,702	-	
<b>II. Medium</b>					
2. Mahadayi	180.76	-	-	-	
<b>Total Major</b>	<b>17,881.54</b>	<b>10,039.44</b>	<b>21,37,059</b>	<b>12,51,181</b>	
<b>Total Medium</b>	<b>1,518.89</b>	<b>856.95</b>	<b>1,16,519</b>	<b>33,372</b>	
<b>Grand Total</b>	<b>19,400.43</b>	<b>10,896.39</b>	<b>24,33,578</b>	<b>12,84,553</b>	

Source : Irrigation in Karnataka, 1999-2000, Irrigation Department, Government of Karnataka.

### Horticulture

Karnataka is a pioneer a State in horticultural development in the Country. Raibag (Bagi) in Belgaum District was famous for its orchards in historical times. Hukeri supplied flowers to Adilshahi Court. Lalbagh was raised at Bangalore by Haider Ali. As early as during the 7th century we hear of a guild of florists (Malekaras) at Badami.

Agro-climatic conditions are favourable in the State for taking up of horticultural development activities. As a result, an increasing trend in recent years both in respect of area as also in the production is being witnessed. The department of horticulture provides equipments and technical guidance and supplies plant protection chemicals and improved varieties of seeds and imparts training to the persons engaged in horticultural activities.

It is estimated that about 11.5 per cent of the total net cultivable area is occupied by horticultural crops. The importance of horticultural crops is recognised in dry land development, for developing green belts, in protecting the eco-system and improving the environmental conditions. Farmers are switching over to horticultural crops as they involve less labour and also withstand drought conditions.

The Oil Palm project is being planned for implementation in five command areas. Priority has been given for drip irrigation. The department is maintaining 398 horticultural farms and nurseries spread all over the State covering an area of 7,076 ha. These farms and nurseries are serving as centres for demonstration of improved practices and propagation.

#### The Area under important horticultural crops in Karnataka

Lakh ha

	Crop	1997-98	1998-99
1.	Fruits	3.15	3.25
2.	Coconut	4.94	5.14
3.	Spices	5.61	5.87
4.	Vegetables	2.59	2.65
5.	Cashew	0.67	0.68
6.	Flowers	0.20	0.20

The Horticultural Producer's Co-operative Marketing and Processing Society Ltd (HOPCOMS) was established in 1959 for organised marketing of fruits and vegetables in the co-operative sector. There are 15 district level co-operative societies and 25 commodity societies with a membership of 9,800 handling 100 tonnes of horticultural produce per day.

#### Coffee

Karnataka is the foremost coffee producing State in India. Coffee is said to have been introduced into Karnataka by Baba Budan, a Muslim saint in about 1670 A.D. from Ethiopia. The majority of coffee plantation are in Chikmagalur, Hassan and Kodagu districts and some in the Biligirirangana hills of Mysore district. The two principal species of coffee

that are grown include Arabica and Robusta. There is now a growing interest to raise coffee in the Western Ghat region further in other districts like Shimoga, Udupi and Dakshina Kannada.

The total area under coffee in Karnataka is about 1.26 lakh ha comprising 79,899 ha under Arabica and 46,464 ha under Robusta. The average yield per ha. of bearing area of Arabica and Robusta coffee in the State (Kg/ha) is 640 and 799 respectively. The number of coffee estates was 28,713 as per census of coffee estates in 1972-75. The same rose to 39,074 by 1999-2000.

**The details of planted area and production of coffee in Karnataka 1999-2000**

District	Area in hectares			Production in MT		
	Arabica	Robusta	Total	Arabica	Robusta	Total
Chikmagalur	57,730	23,088	80,818	45,800*	31,900	77,700
Kodagu	25,887	53,980	79,867	32,300*	71,600	10,390
Hassan	25,640	5,005	30,645	22,000	5,500	27,500
Mysore & others	800	0	800			
<b>Total</b>	<b>1,10,057</b>	<b>82,073</b>	<b>1,92,130</b>	<b>1,00,100</b>	<b>10,900</b>	<b>2,09,100</b>

\* including Mysore and other districts.

**Table showing the pattern of the number of coffee holdings**

Small holdings		Large holdings	
0-2 ha	27,109	10-20 ha	1,020
2-4 ha	6,580	20-40 ha	445
4-10 ha	4,160	40-60 ha	150
		60-80 ha	87
		80-100 ha	46
		Above 100 ha	107
<b>Total</b>	<b>37,849</b>	<b>Total</b>	<b>1,855</b>

**Animal Husbandry**

Livestock rearing plays a very vital role in rural economy in supplementing family income from agriculture and also providing employment. Farmers are dependent on animal husbandry activities to utilise agricultural by-products and crop residues to convert them into animal products with good returns. The Chalukyas and the Rashtrakutas in historical times donated cows in thousands (*gosahasra*) and the *gosasa* stones are found in hundreds to commemorate this act. These cows were donated to villagers all over their empire to encourage animal husbandry. There was "benne chavadi", a department to collect ghee at the Mysore Court. Haider Ali made efforts to promote Amritmahal bullock breed which were excellent draught animals.

As per 1997 Livestock Census, the livestock and poultry population in the State is 285.52 lakhs and 187.55 lakhs respectively. The number of cattle, buffaloes, sheep, and pigs were 10,248 4,126, 7,443, 4,452 and 347 thousands respectively. (See Page No. 22 & 23 for details).

The spread of Veterinary services has resulted in the improvement of animal health. The State had a network of 3,638 Veterinary Institutions, comprising of 244 veterinary hospitals, 803 veterinary dispensaries, 2,018 primary veterinary centres, 400 artificial insemination centres and 73 mobile veterinary clinics during 1998-99. There were 6,577 attacks of various diseases resulting in 1,296 deaths. Vaccination against outbreaks of various diseases were given to about 215 lakh animals. A total of 22 lakh artificial inseminations were done and 2.68 lakh calves were born.

Cattle development is carried out mainly through artificial insemination technique. Frozen semen technology has been adopted. There are about 2,054 veterinary institutions providing artificial insemination facility to animals. Indigenous breeds such as Hallikar, Amritmahal, Khillari, Krishna Valley and Deoni are being improved by selective breeding.

#### **Livestock Farms**

There are eleven livestock farms under the control of the Department of Animal Husbandry and Veterinary Services, of which some are composite in nature. Composite livestock farms are engaged in production of superior germ plasm, fodder seeds and imparting training to farmers. The details of livestock farms are given here.

- (1) State Livestock Breeding and Training Centre, Hesaraghatta - Jercy cattle breeding, bull-calf production, frozen semen production, farmer's training, fodder and fodder seed production.
- (2) Livestock Breeding Farm, Hesaraghatta - Cross breeding and bull calf production, fodder development, Pig and Rabbit rearing.
- (3) Jercy Cattle Breeding Station, Kudige, Kodagu District - Jercy Cattle Breeding, bull-calf production, farmer's training, fodder development and pig development.
- (4) Livestock Breeding farm, Koila, Dakshina Kannada District - Cross breed calf production, Surti buffalo production, fodder development, pig production and farmers training.
- (5) Hallikar Cattle Breeding Station, Kunikenahalli, Tumkur District - Hallikar Cattle Breeding, bull-calf production and distribution and fodder development.
- (6) Amritmahal Cattle Breeding Station, Ajjampur, Chikmagalur District - Amritmahal cattle Breeding, bull-calf production and distribution, Rabbit production and distribution and fodder development
- (7) Khillar Cattle Breeding Station, Bankapur, Haveri District - Khillar Cattle Breeding, fodder development, bull-calf production and distribution, Rabbit production and distribution.
- (8) Jercy Cattle Breeding and Training centre, Dharwad UAS Campus - Jercy Cattle Breeding, bull-calf production, farmer's training, fodder development and frozen semen production.

## Livestock Census (Provisional Figures) 1997

District	Cattle	Buffaloes	Sheep	Goats	Pigs	Rabbit	Dogs
Bangalore	1,82,266	25,711	1,19,627	39,686	6,881	1,110	1,21,992
Bangalore Rural	4,69,679	92,855	3,35,607	1,82,436	6,000	495	70,899
Chitradurga	3,15,243	1,64,498	7,55,757	2,22,849	7,463	166	54,926
Davanagere	3,74,005	2,17,038	2,33,409	1,18,751	4,212	352	52,181
Kolar	5,26,639	1,47,359	7,18,858	1,58,646	29,609	713	1,29,177
Shimoga	5,79,165	2,08,003	18,041	80,463	3,030	529	1,04,949
Tumkur	5,78,305	2,59,622	8,74,598	3,64,627	19,836	1,343	1,41,451
<b>Bangalore Dvn.</b>	<b>30,43,302</b>	<b>11,15,086</b>	<b>30,55,897</b>	<b>11,67,458</b>	<b>77,031</b>	<b>4,708</b>	<b>6,75,575</b>
Belgaum	5,12,634	6,51,564	9,04,870	4,37,424	30,457	409	1,12,626
Bijapur	2,53,705	1,53,056	2,54,674	3,58,141	29,242	17	61,618
Bagalkot	2,63,124	1,95,946	3,41,307	2,54,825	19,092	69	42,771
Dharwad	2,15,480	81,667	46,199	69,531	5,435	93	34,856
Gadag	1,63,716	84,904	1,64,111	1,21,038	5,650	82	28,384
Haveri	3,45,411	1,21,386	2,80,874	1,33,125	2,822	64	42,599
Uttara Kannada	3,23,628	1,13,129	1,948	14,973	2,356	217	83,074
<b>Belgaum Dvn.</b>	<b>20,77,698</b>	<b>14,01,652</b>	<b>19,93,983</b>	<b>13,89,065</b>	<b>95,054</b>	<b>951</b>	<b>4,05,928</b>
Bellary	3,69,464	1,77,487	3,45,186	1,82,564	19,895	82	46,776
Bidar	2,76,704	1,49,508	68,789	1,19,937	12,195	203	28,517
Gulbarga	8,15,651	2,08,453	4,47,496	5,69,654	24,561	28	84,381
Raichur	3,21,181	1,18,299	3,24,520	2,12,719	10,430	212	39,280
Koppal	3,33,727	1,24,659	2,19,392	1,53,583	8,739	54	45,429
<b>Gulbarga Dvn.</b>	<b>21,16,727</b>	<b>7,78,406</b>	<b>14,05,383</b>	<b>12,30,457</b>	<b>75,820</b>	<b>579</b>	<b>2,44,383</b>
Chikmagalur	3,62,764	1,11,663	74,747	98,329	11,403	505	63,563
Dakshina Kannada	3,44,192	57,134	200	20,566	18,266	599	1,71,839
Udupi	3,78,442	74,582	134	5,021	1,634	125	1,39,581
Hassan	6,15,161	2,03,646	2,02,423	1,11,018	9,179	659	82,866
Kodagu	1,37,510	43,291	830	6,940	42,198	442	57,330
Mandya	3,40,950	2,12,979	3,67,392	2,41,476	11,418	272	51,932
Mysore	5,59,492	87,282	2,24,134	1,37,780	3,145	449	65,365
Chamarajnagar	2,72,184	40,881	1,17,785	98,329	1,645	196	25,911
<b>Mysore Dvn.</b>	<b>30,10,695</b>	<b>8,31,458</b>	<b>9,87,735</b>	<b>6,64,905</b>	<b>98,888</b>	<b>3,247</b>	<b>6,58,387</b>
<b>State</b>	<b>102,48,422</b>	<b>41,26,602</b>	<b>74,42,998</b>	<b>44,51,885</b>	<b>3,46,793</b>	<b>9,484</b>	<b>19,84,273</b>

## Livestock Census (Provisional Figures) 1997

District	Other Live stock	Total Live Stock	Total Poultry	Milk Production	Egg Production	Meat Production
		('000s)	('000s)	('000s) Tonnes)	(lakhs)	(tonnes)
Bangalore	526	498	1,402	215	2,142	16,471
Bangalore Rural	931	1,159	1,284	267	3,160	4,990
Chitradurga	5,223	1,526	305	94	635	3,220
Davanagere	629	1,001	317	136	734	1,857
Kolar	1,027	1,712	1,023	373	795	5,239
Shimoga	488	1,013	857	172	774	955
Tumkur	8,801	2,249	876	226	490	3,609
<b>Bangalore Division</b>	<b>17,625</b>	<b>9,157</b>	<b>6,065</b>			
Belgaum	8,135	2,658	918	479	760	4,064
Bijapur	2,330	1,113	422	124	282	2,002
Bagalkot	1,009	1,118	365	99	378	1,876
Dharwad	332	454	309	87	433	2,071
Gadag	847	569	186	53	236	1,772
Haveri	597	927	362	88	694	1,352
Uttara Kannada	66	539	555	88	415	167
<b>Belgaum Division</b>	<b>13,316</b>	<b>7,378</b>	<b>3,118</b>			
Bellary	1,384	1,143	1,287	123	1,138	3,125
Bidar	2,377	650	539	123	600	1,364
Gulbarga	2,922	2,153	735	166	385	3,367
Raichur	396	1,027	257	182	309	3,034
Koppal	819	886	668	32	571	2,141
<b>Gulbarga Division</b>	<b>7,898</b>	<b>5,860</b>	<b>3,486</b>			
Chikmagalur	354	669	353	86	226	1,386
Dakshina Kannada	8	613	1,159	95	495	152
Udupi	-	560	994	15	447	144
Hassan	1,329	1,226	760	202	827	2,470
Kodagu	48	289	333	51	363	830
Mandya	475	1,227	1,078	191	627	4,672
Mysore	324	1,078	1,253	259	1,150	3,012
Chamarajnaragar	276	557	186	97	314	1,970
<b>Mysore Division</b>	<b>2,814</b>	<b>6,258</b>	<b>6,116</b>			
<b>State</b>	<b>41,653</b>	<b>28,652</b>	<b>18,786</b>	<b>4,231</b>	<b>19,380</b>	<b>77,314</b>

Source : Annual Report 1999-2000 Department of Animals Husbandry and Veterinary Services



- (9) Buffalo Breeding Farm, Tegur, Dharwad District – Surthi Buffalo breeding, bull-calf production and distribution, fodder production.
- (10) Livestock Breeding and Training Centre, Munirabad, Raichur District – Jersey Cattle Breeding, fodder development, farmer's training, frozen semen production and distribution.
- (11) Livestock Breeding and Training Centre, Karikuppi, Bellary District – Cross Breed bull-calf production, fodder production, fodder development and farmer's training.

There are six sheep breeding farms functioning in the State. The largest farm is located at Challakere where crossbred rams are produced. Deccani and Bandur breeds of sheep are crossed with Corriedale and Rambulet rams.

The six Sheep Breeding farms which were under the department at Dhangur, Challakere, Ulavarthy, Guttal, Anagawadi, and Suttatti have been transferred to the Sheep and Wool Development Board. Under the Central Wool development Board six carpet weaving centres are established at Kengeri, Kolar, Mulbagal, Ranebennur, Haveri and Ghataprabha. Under Zilla Pachayat control, seven Sheep and Wool Development Schemes at Malavalli, Nagamangala, Channarayapatna, Hosadurga, Hospet, Bijapur and Yadgir are functioning. Ten Sheep Breeders Associations are also functioning at Nagamangala, Krishnarajpet, Mysore, Channarayapatna, Ramanagaram, Tumkur, Doddaballapur, Kolar, Chitradurga and Ranebennur.

There are 32 poultry institutions in the State the details of which are as follows:

1. The State Poultry Breeding and Training Centre at Hesaraghatta, Bangalore ; 2. Three Regional Poultry Breeding and Training Centres at Malavalli, Gangavathi and Haveri ; 3. Eight District Poultry Rearing and Training centres at Gulbarga, Davanagere, Kudige, Bidar, Bijapur, Gundlupet, Mangalore and Kolar; 4. Thirteen Poultry Rearing centres at Tumkur, Shimoga, Raichur, Kumta, Kundapur, Chikmagalur, Ponnampet, Hassan, Ramanagaram, Tirumakudal Narasipur, Holenarsipura, Koila and Kurikuppe; 5. Five Intensive Poultry and Egg Marketing Centres at Bangalore, Mysore, Dharwad, Belgaum and Gulbarga are merged with Karnataka Cooperative Poultry Federation; 6. One Livestock and Poultry Feeds' Quality control wing at Bangalore and 7. One Registration and Hatcheries wing in Bangalore.

Karnataka is the first State in the Country to bring Karnataka Poultry and Livestock Feed (Regulation of Manufacture and Sale) Order, 1987 under section-3 of Essential Commodities Act, 1955. This was given effect from 7<sup>th</sup> March 1988. All feed manufacturers and dealers should obtain the License for manufacture of feed for sale and distribution of Poultry and Livestock feeds. The quality feed should be as per standards specified by the Licensing Authority as per the advice of the expert committee.

Karnataka Co-operative Poultry Federation at Bangalore is functioning since 1995. The five Intensive Poultry and Egg marketing centres have been transferred to this

federation. During March 1988, 18 primary co-operative societies were sanctioned Rs 116.21 lakhs as share capital loan from the National Co-operative Development Corporation (NCDC). 44 primary co-operative societies are functioning under the control of the federation.

The Swine breeding policy aims at usage of exotic breeds of pigs like Landrace and Yorkshire. There are three pig breeding stations functioning in the State for the development of piggery activities at Hesaraghatta in Bangalore District, Kudige in Kodagu District and Koila in Dakshina Kannada District. The demand for rabbit meat is mounting and to meet this demand, the department has started 9 rabbit breeding centres at Hesaraghatta, Ajjampur, Habbanaghatti, Sirsi, Kotekar, Kalasa, Bangarpet, Kudige and Bankapur. Foreign breeds from America and Russia are also introduced. These centres produce and supply rabbits to the interested rabbit rearing farmers.

Fodder development programme is being implemented to meet the demand for feed and fodder. Intensive fodder cultivation has been taken up in all the livestock farms. These farms produce and supply root slips and fodder seeds to the needy farmers at nominal prices. During 1999-2000, 80 lakhs of root slips, 400 quintals of fodder seeds and 9,100 minikits were supplied to the farmers.

The department is also implementing the Socio-economic programmes such as Special Component Plan, Tribal sub-plan and special livestock breeding programme for the upliftment of weaker sections of society.

### **Dairy Development**

Dairy development activities under "Operation Flood" programme pertain to providing guaranteed and remunerative market to the rural milk producers and supply of hygienic milk and milk products to the Urban consumers. Karnataka Co-operative Milk Producers Federation Ltd (KMF) has been designated as implementing agency for Operation Flood Project. Financial assistance for capital investments in the district Milk Unions flows from National Dairy Development Board. The main objective of KMF is the co-ordination of various phases in production of milk and milk products like procurement, processing, marketing and distribution. The technical input is provided by KMF through milk unions to the farmers of Dairy Co-operative societies.

During the year 1993-94, 205 new dairy co-operative societies have been established and 45,353 farmers have been enrolled, thus bringing the total organised dairy co-operative societies and numbers enrolled to 6,611 and 12,31,782 respectively. The production of milk (estimated) in the State during 1992-93 was 29.1 lakh tonnes. The total milk procured during 1992-93 was 4.01 lakh tonnes. Karnataka's per capita milk production was only 62.6 kgs as compared to 66.9 kg for the country as a whole. During the year 1998-99, 387 new dairy co-operative societies were established. The daily milk procurement was 20.4 lakh kg and the estimated milk production in the state was 42.31 lakh tonnes. The details of milk procured by Dairies are given here.

**Milk Procured by Dairies**

(thousand tonnes)

No.	Location	92-93	93-94	94-95	95-96	96-97
1.	a) Bangalore b) Mother Dairy Bangalore	88	98	113	129	144
2.	Mysore	31	35	29	29	43
3.	Mandya Product Dairy (Gajjalagere)	34	38	36	37	43
4.	Kudige (Kodagu)	-	-	-	-	-
5.	Hassan	23	24	22	21	26
6.	Tumkur	34	30	21	80	23
7.	Dharwad	25	27	21	18	20
8.	Belgaum	20	19	15	14	17
9.	Gulbarga	11	12	12	9	9
10.	Shimoga	18	20	21	22	28
11.	Mangalore	8	11	12	13	15
12.	Bijapur	9	9	7	6	7
13.	Raichur	11	12	9	10	12
14.	Kolar	87	95	96	116	133
<b>Total</b>		<b>399</b>	<b>430</b>	<b>414</b>	<b>442</b>	<b>512</b>

Source : Karnataka Co-operative Milk Producers Federation Limited.

There are 13 Milk Unions, 15 Dairies, two product dairies, 3 cattle feed plants, one bull breeding farm, one frozen semen bank, 4 diagnostic laboratories, 3 liquid nitrogen plants and 4 training centres in the State during 1998-99.

**Fisheries**

The State is having rich resources for fisheries development. About 27,000 sq km of continental shelf all along the 300 km coastal line and about 4.57 lakh ha. of inland waterspread area offer immense scope for fisheries development. Apart from this, there is 8,000 ha of brackish water area available for the development of Shrimp Fisheries. Inland fishery resources consist 4.15 lakh ha of tanks and ponds and 2.16 lakh ha of reservoir. In addition, it has 6,000 km of river length.

Presently an area of 7,000 sq.km of continental shelf is being exploited by small mechanised boats. State's mechanised fishing fleet has 2,471 shrimp trawlers, 327 purse-seiners and 1,639 mechanised gillnet units, including 11,500 traditional boats intensively operating in the inshore waters. The marine fish catches fluctuated between 1.2 to 2 lakh tonnes. Fisheries play an important role in the economy of the coastal districts of the State. Nearly 96,000 fishermen are engaged in fishing in the coastal districts.

Less than half of the existing inland fishery potential is being utilised for fish production, mainly on account of shortage of fish seed. Fish seed production during 1998-99 was around 140 million fry and average inland fish production was around 60,000 tonnes. Inland fish

production 1,18,419 tonnes (1997-98) and marine fish production 1,60,627 tonnes (1997-98). Some of the *Jilla Panchayats* have taken up Inland Fisheries seriously as in Bangalore Rural district.

Out of 8,000 ha of brackish water sources, about 4,200 ha are identified as suitable for prawn farming, about 2,500 ha of khar land and 1,000 ha of salt pans can be utilised for raising prawns. Brackish water Fish Farmer's Development Agency with Central Government assistance has been established at Karwar during 1987 for the upgradation of technology for prawn and fish farming. Eighteen fish farms, which were transferred to Karnataka Inland Fisheries Development Corporation to manage the seed farms on commercial lines and increase production, have been taken over by the department due to the closure of Corporation during 1990-91.

Since 1982, an Integrated Fisheries Development project is in operation at Tadri, Uttara Kannada district, in collaboration with DANIDA. Among infrastructure development programmes, there are four fishing harbours viz., Karwar, Honavar, Tadri and Malpe and the Mangalore harbour is under construction. There are 24 fish landing centres in the State. The NCDC supported Reservoir Fisheries Development Project has been taken up for implementation in Mysore district, through the newly established Karnataka Inland Fisheries Federation.

The Centrally-sponsored Fish Farmers Development Agencies are functioning in eight districts. The Department of Fisheries is implementing beneficiary oriented programmes like the National Seed Production Programme, Fisherman Welfare Scheme, Group Insurance Scheme, Tribal sub-plan, Special Component Plan, Distress Relief Fund etc. The Department is imparting training to rural youths in fishery activities at Krishnarajasagar and Bethamangala training centres.

Export of fish was of the order of 10,551 and 1,947 tonnes during 1997-98 and 1998-99 respectively. During 1991-92 among different States, Karnataka ranked seventh with six per cent of total fish catch in the Country.

#### Development of Fisheries in the State

	Particulars	1997-98	1998-99
1.	Mechanised boats		
	i) purse seines	357	360
	ii) gill netters	3,040	3,385
	iii) shrimp trawlers	2,666	2,506
	iv) others	107	67
2.	Purse seine nets	484	492
3.	Capacity of ice plants in tons per day	2,241	3,299
4.	Capacity of storage	2,742	3,837
5.	Marine Fish production lakh tons	1.90	1.61
6.	Inland fish production lakh tons	3.11	2.79



## Chapter V

# INDUSTRIES AND POWER

**K**arnataka State is endowed with a large number of useful minerals, raw materials, marine resources, besides infrastructural facilities such as transport and communication, banking, technical man-power, industrial estates, industrial areas, International Technological Park etc.

The Central and State Governments have declared special incentives and concessions for the development of industries in the State. The mineral based industries such as iron and steel, manganese, cement, bricks, tiles etc., have played a vital role in the state. Agro-based industries such as cotton, textile, oil extraction, processing of cashew-nuts, fruit processing and food products are prominent. Wood-based industries such as saw mills, paper mills, plywood, poly-fibres etc., are flourishing in the State. The need for supporting institutions relevant for development of industries in the State was realised by the Government even before independence and some of the important measures which were introduced include starting of the Department of Industries and Commerce (1913), the Mysore Bank (1913), and the Chamber of Commerce (1915). Hydro electric power was first produced at Gokak Falls on a small scale as early as in 1887 and on a large scale, to meet the needs of Kolar gold mines in 1902 at Shivasamudram.

### **Traditional Industries**

Many crafts and industries have flourished in the state from ancient times. Of the industries of Karnataka, production of textile is an important industry. It had centres all over Karnataka and they included places like Binnamangala, Aigandapura (Bangalore Dt), Belgavi (Shimoga Dt), Arasikere (Hassan Dt) and Chinmali (Raichur Dt) to speak of the most prominent centres mentioned in inscriptions. During the medieval times Hubli, Gadag, Badami, Ilkal, Kodiyala, Guledgud, Bangalore and Doddaballapur became notable centres. The Adilshahi rulers of Bijapur started paper and agarbathi (joss stick) industries in their territory in North Karnataka. A British factory founded at Kadwad on the banks of the Kali in 1638 exported cloth from the hinterland at Hubli. Under Chikkadevaraya of Mysore, Bangalore had 12,000 families of Weavers and Dodballapur also grew to be a major centre of textile production. Under Tipu, many weavers from Baramahal in Tamilnadu settled down in Bangalore and surrounding places. Buchanan, while speaking of the Mysore State during his visit, says that there were a class of weavers called *Togataru* who wove coarse, thick, white cotton cloth with red borders and *Holiars* who wove coarse, white strong cloth called *parakali*. Karnataka women spun yarn using a *charkha* in their spare time and Buchanan says that a full-time spinner earned as much a farm worker. But the Industrial Revolution ruined spinning as a profession, and also throttled weaving on a major scale.

Weaving coarse blankets (*kambli*) also flourished and inscriptions speak of Davangere and Dodballapur as the two centres of this industry. Dr. A. Appadorai speaks of Budihal (Chitradurga dt.) as a centre of producing cloth from hemp fibre. Inscriptions speak of Pattegars or silk weavers from Lakshmeshwar, (Gadag dt.) and Varagiri (Haveri dt.) Though

the raw silk was imported in ancient times, Tipu introduced sericulture in Mysore on a large scale. Buchanan speaks of the Khatries (Kshatriyas, people from the Southern part of Gujarat) in Bangalore who prepared very strong and rich clothes. They dyed much of their silk and were more wealthy than other weavers, he adds. These people had also settled in Hubli in good numbers. They were well-versed in brocade work too. Production of oil was another flourishing industry in the state, sesame, honge seed, castor, coconut, kusube (safflower) etc., were used to extract oil.

The Panchalas included blacksmiths, goldsmiths, coppersmiths, braziers and carpenters and they are also called Vishvakaramas. An inscription of 11th Century from Mysore district speaks of a blacksmith who was an expert in producing swords. Under Mysore Rulers, Chikkadevaraya had Kabbinaadachavadi, the iron department, perhaps to supervise production and sale of iron goods. Tipu continued this monopoly and he also founded a state foundry at Kanakapura where even canons were forged. Buchanan speaks of manufacture of iron from sand accumulating in the rainy seasons at places like Madhugiri, Chennarayanaadurga, Hagalavadi and Devarayanadurga. He gives the technical details of iron smelting too at these places. He speaks of iron ore from Ghattipura in Magadi taluk. He also informs us of manufacture of steel which was used to produce sword blades and stone cutter chisels at Magadi near Bangalore and other places. He tells us that Channapatna was a centre of production of steel wires which had a demand all over was used in musical instruments too. Tegur near Dharwad, Halgur in Mandya, Benkipura (modern Bhadravati) etc., were notable centres of iron production and charcoal to smelt iron was available in abundance in the forests of Western Ghats, which had also abundant iron mining centres.

Production of jewellery was also a flourishing industry and Manasollasa gives a long list of jewellery worn by both men and women. Among the Panchalas, the goldsmiths make the jewels, earlier, they minted coins by paying a fee called *tanka* to the State. There were state mints at Lakkundi, Sudi, Kudutini, Belgavi, Mangalore, Barkur and the capital cities. The Kasars or Kanchugars (braziers) produced bronzeware which included vessels, musical instruments like bells and trumpets, lamps of various kinds, mirrors and images of various deities. They are mentioned in many records and the one at Laksmeshwar of the 8th century is notable among them. Carpentry was another profession of the Panchalas and in addition to the production of agricultural implements and household furniture, they also produced chariots, carts, boats and palanquins. They also built palaces with decorated pillars, panels and ceilings. All old palaces were mostly wooden as can be seen even today by those surviving ones at Shimoga, Bangalore and Srirangapatana.

Production of foot-wear, waterbags, shields, beds and cushions, drums, etc. was undertaken by leather workers called Samagars (tanners) and Mochis. Footwears produced by them were of a variety of designs and colours as testified to by *Manasollasa*. A Badami record speaks of their guild. The Kumbaras or potters were producing earthen vessels and tiles. The vessels were both hand-made and wheel turned. Production of salt and lime were two other notable industries. Salt was produced from sea water on the coast and the salt stones mined. There were *uppina moles* or salt pans mentioned in records. Places like Uppina Kuduru, Uppinamogaru, Uppinapatna, Uppuru, Uppalli, Uppinangadi etc., are reminders of the fact that these places were centres of salt manufacture. The Uppars were the caste

engaged in producing salt. This traditional industry which supported thousands, came to be ruined after the British made salt production a state monopoly. Buchanan speaks of the industry as flourishing at Tekal (Kolar dt) and gives details of the techniques of production adopted at the place. Lime was produced both from sea shells on the coast and from lime stones mined. Buchanan also described the kilns at Kadugodi near Whitefield (Bangalore dt). There was a community called Sunagars engaged in this industry.

Production of glass bangles was also a flourishing industry. A record of 1161 from Belgaum district speaks of Senahalli, Kallakundarge (Kallakundri) and Nittur as centres of this industry. The Balegars formed a separate caste and Kannada poet Ranna was of this caste. Some of them had the surname Setti as seen from inscriptions. Buchanan speaks of Muttodu in Chitradurga district as a centre of bangle manufacture and he mentions that these bangles were of five colours viz., black, green, red, blue and yellow. He also states that glass produced there was opaque and coarse and materials needed for glass making were available in the neighbourhood of the place. He also describes manufacturing glass bangles and bottles at Channapatna and here this industry was started under the initiative of Tipu.

Production of jaggery, sugarcandy were other notable industries. Inscriptions speak of *alemane* found in many parts of Karnataka where cane juice was boiled and jaggery was manufactured. Buchanan speaks of this manufacture as seen by him at Maddur and surrounding villages. Palm juice was also used to produce jaggery. Tipu had made special efforts to foster sugar and sugar candy industry and has even secured the assistance of Chinese technicians. Buchanan speaks of sugar produced at Chikkaballapur which he describes as very white and fine and the sugar candy of the place was "equal to the Chinese". The Astagrama sugar works started at Palahali (Mandya dt) in 1847 was famous for its crystal sugar. It had the privilege of participating in international exhibitions of 1850, 1861 and 1867 held at London and had even won a prize. But it stopped working later due to various reasons.

Manufacture of perfumes was another industry. *Manasollasa* in the section 'Snanabhoga' (on enjoying bath) refer to perfumed oil and ointments and also speaks of the processes of their production, using mostly the raw materials derived from vegetable sources.

A good number of craftsmen especially in villages were partly agricultural and also pursuing their craft which was hereditary and the training was mostly imparted by father to son. The craftsmen had their flourishing guilds, and even the Shatavahana records make a mention of these *nigamas, nikayas or shrenis* (in Sanskrit). In Kannada, the guilds were called *kottali, shreni, samaya, samuha or hittu*. A record of the Badami Chalukya times from the capital city speaks of the guilds of garland makers (*malekaras*), cobblers etc. A record of the days of the same dynasty from Lakshmeshwara mentions the guild of the braziers and another of *Pattegars* (silk weavers). The State did protect the guilds and maintained their privileges. Inscriptions speak of *saligasamaya or jedagottali*, the guilds of weavers, *oddagottali* (the stone-cutters guild) or *telliganakhara* or oilmen's guild. Some of the guilds are mentioned with certain numerical suffixes attached to their professional name such as *telliga ayvattu*

(fifty) or *ugura munnuru* (300), the *ugurus* being pluckers of betel leaves or *gale munnuru* (300), pluckers of fruits in orchards. *Uguru* literally means nail and they plucked leaves by attaching a small chistle to their nails. *uguruli*. *Gale* or bamboo was used to pluck fruits.

### **Beginning of Modern Industries**

Tipu made special efforts to introduce new industries and modern techniques in producing sugar, glass, etc. Buchanan informs that under arrangements made by Tipu, broad cloth, paper, watches and cutlery were manufactured by new techniques. He got new techniques from China to improve sugar production and men from Bengal to introduce sericulture and European experts, especially the French to produce watches and cutlery. Dewan Rangacharlu had stated as early as in 1881, his clear conviction that no country can prosper unless its agricultural and manufacturing industries were equally fostered. The later dewans like Sheshadri Iyer, Sir M. Visveswaraya and Sir Mirza Ismail also had such a conviction and they formulated their policies based on it.

In the erstwhile Mysore State, the Kolar Gold Fields had been started by an English Mining Company (John Taylor and Sons) in 1880 when the State was under direct British rule. Laying of railways was an added advantage. By 1900, two large scale textile mills came up i.e., the Bangalore Woollen, Cotton and Silk Mills Ltd (1884) and the Mysore Spinning and Manufacturing Company Ltd (1894) both at Bangalore. A Central Industrial Workshop was established by the State Government in 1897 at Bangalore. The State Government enterprises of Hydro-electric power generation at Shivasamudra (Mandya Dt) in 1902-03 may be said to have initiated the modern industrial development in the State.

Industrial development did take place in the Old Hyderabad and Bombay Karnataka area also. But they were incidental and not on any planned basis. At Gulbarga, a textile mill, the Mahaboob Shahi Kalburga Mills, was established in 1884 with the active support of the Government of Nizam of Hyderabad. The MSK. Mills Co, Ltd. was re-registered under the Indian Companies Act in 1888. The Mill ran into difficulties in the early sixties of this century and the State Government of Karnataka acquired the controlling interest and took over the management in 1963 and later in 1973 the Mill was taken over by the National Textile Corporation.

Except for the English-owned textile mills established in 1885 at Gokak Falls and in 1889 at Hubli, there was hardly any major industrial enterprises in Bombay Karnataka area. There were however some crafts such as the Bidriware in Bidar taluk and handlooms in Bijapur, Bagalkot, Dharwad, Gadad and Haveri districts. In the thirties and forties of the 20th century, a few industries came up, the notable among them being the Cement factories at Shahabad and Wadi (Gulbarga dt), Sugar factories at Kittur and Ugarkhurd (both in Athani tq, Belgaum dt). The Swadeshi spirit did help the establishment of a few minor units like ceramic works at coastal Karnataka and many industrial units and beedi manufacture grew here as a home industry. Beedies with regular labels came to be manufactured from 1914 when Mahalakshmi Beedi Works started at Panemagalur in 1914 followed by PVS Bedies (1918), Bharat Beedies and Ganesh Beedies (both in 1930). Tile manufacture initiated by German missionaries (Basel Mission Tile works 1865) in Mangalore was a notable avenue. Cashew processing was another enterprise.



### **Economic Conference**

The starting point of planned economic development as a concept and State policy began with the appointment of Sir M. Visveswaraya as Chief Engineer in 1909 and he dominated the industrial scene for over five decades. It was at his instance that the First Mysore Economic Conference was held in 1911 and its report dealt in great detail the natural resources of the State and identified a number of industrial possibilities. The Government accepted the recommendation of the Economic Conference and set up a separate Department of Industries and Commerce in 1913. The Department was reorganised in 1922 and strengthened periodically to meet the growing needs of industrial enterprise, in both public and private sectors.

The Government Sandal Oil Factories were located in Mysore City (1915) and Shimoga (1944) to augment the production and distillation of sandal wood oil. The manufactured items included sandal wood oil B.P. Quality, special 'A' Quality oil, sandal wood oil residue and sandalwood baloon dust.

The Government Soap Factory was established in 1918 in Bangalore with an objective of manufacturing laundry soaps and toilet soap in sandal, jasmine and lavender perfumes, Mysore Sandal Soap, shaving soap, Indo-cure quickfix, glycerine etc. The Karnataka Soaps and Detergents Ltd., a State Government undertaking has taken over the management of the Government Soap Factory at Bangalore and the Sandalwood oil factories at Mysore and Shimoga in 1980. The Company is having the following units (1) Detergent Unit commissioned in 1976, (2) Fatty Acid Unit commissioned in July 1981 (3) Soap expansion project to boost the manufacture of soap from 6,000 tonnes to 26,000 tonnes . (4) Sandal oil divisions at Mysore and Shimoga, and (5) the agarbathi units at the Sandalwood oil divisions.

The Minerva Mills, a private enterprise was established in 1919 in Bangalore. The products manufactured were 10s to 40s single folded cloths - shirting, long cloth, dhoties, chaddars and towels. The first major public sector undertaking was the Mysore Iron and Steel works at Bhadravati, which was established in 1923 with the objective of converting the vast iron deposits of Kemmanugundi in the ranges of the Bababudan Hills into pig iron and manufacture of allied products. The nomenclature was changed to 'The Mysore Iron and Steel Works' with the commissioning of cast iron pipe plant, open hearth furnace, rolling mills and a cement plant. In the year 1962, it was changed into a company called 'Mysore Iron and Steel Ltd.' with Central Government share of 40 percent of its equity. This departmental undertaking became a Government company jointly owned by the Central Government and the State Government of Karnataka in the ratio of 40:60 respectively. In 1975, in order to pay tribute to its founder the name was changed as 'Visveswaraya Iron and Steel Ltd.' Now it is under the administrative control of the Steel Authority of India.

The Pierce Leslie and Company, Mangalore (1924), and Siddeshwara and Company, Hubli, also came up during early twenties. The former was processing cashewnuts and the latter manufacturing cash chests and steel furniture.

By the late twenties of this century, the old Mysore State had 26 major industrial concerns excluding the Kolar Gold Fields, the textiles and hydro-electric works. Prior to

the States Reorganisation in 1956, the decade 1931-1941 was the most active period in the economic development of Mysore.

The Mysore Industrial and Testing Laboratory to produce pharmaceuticals, chemicals, malt extracts and medicinal specialities were started in 1931 as a Government concern. It was converted into a joint stock company with the Government hold of 40 percent of its shares in 1945. The Mysore Match Company Shimoga, was another enterprise of this time. The Government Silk Weaving Factory was also established in 1932 at Mysore for manufacture of high grade silk fabrics, sarees, cholies etc.

The Government Electric Factory was started in 1934 at Bangalore to produce electric transformers, motors, pumps, transmission towers, etc., The Mysore Sugar Company Ltd., at Mandya was started in 1933 with Government holding about 55 percent of the shares to produce sugar, and alcohol such as potable liquors, industrial spirits and power alcohol were the other important products. The Mysore Paper Mills Ltd., at Bhadravathi was established in 1936 with the Government holding a portion of its shares. The products manufactured were cream laid, writing and printing bonds, azurelaid, ledger papers and other varieties of paper. The Mysore Spun Silk Mills at Channapatna was started in 1936 as a public limited company for manufacturing fabrics out of silk waste. The products manufactured include spun silk yarn, raw silk fabrics, sarees, waste silk druggets, pile carpets, coatings and shirtings, etc. It was under liquidation in 1960 when the Government took it and is being run as a Government concern.

The Davanagere Cotton Mills was established in 1936 in the private sector with a view to manufacture cotton yarn, grey and bleached mull, long cloth, dhoti, etc. The Mysore Lamp Works Ltd., Bangalore was established in 1936 with government holding 17.6 percent of the shares to manufacture all types of incandescent electric lamps, neon signs and other components. The Mysore Stone ware and Potteries Ltd., Chickbanavar was established in 1937. The products manufactured were stone ware pipes, and other products and it was managed by the Mysore Industrial Development Company. The Mysore Tobacco Co. Ltd., a tobacco curing unit was established in 1937. It has curing centres at Mandya, Mysore, Kolar and a grading station at White Field.

The Mysore Chemicals and Fertilisers Ltd., at Belagola (Mandya District) was established in 1937 and it manufactured ammonium sulphate, sulphuric acid, super phosphate, nitric acid, oleum, anhydrous ammonia and ammonium salt. It is the pioneer in the establishment of the first synthetic ammonia plant or fertiliser unit in India.

In 1932, the Mysore Government pioneered the manufacture of insulators for the Electric Department by starting the Government Porcelain Factory. During 1957, the Government obtained technical collaboration of NGK Insulators Ltd., Nagoya, Japan for the first phase of expansion from 50 tonnes of ceramics per month to 200 tonnes. The second phase of expansion to 600 tonnes per month was completed in 1967. It was converted into a Government Company, viz. Mysore Porcelains Ltd. In 1976, this company became a subsidiary of Bharat Heavy Electrical Ltd. The insulators manufactured by this company are unique and are of international standard.

The Mysore Vegetable Oil Products Ltd., was established in 1938 at Bangalore. The products manufactured were hydrogenated oil (Vanaspati) and refined oil.

The Mysore Coffee Curing Works Ltd., was established in 1938 at Chikmagalur. The manufactured products include curing coffee, steamed bonemeal and other requisites. The Mysore Implements Factory at Hassan was established in 1939 to produce agricultural, estate and garden implements and tools, domestic articles, cutlery, sheet-metal work, light structures, ornamental gates and grills, etc. During 1975 the Karnataka Implements and Manufacturing Company Ltd., was established, under the provision of the Company Act of 1956. It was formed by the merger of two erstwhile departmental undertakings of the Government viz, Central Industrial Workshop at Bangalore and the Mysore Implements Factory, Hassan. The Bangalore Factory is currently engaged in the fabrication of 20 T and 100 T trailers. The other products are road rollers, concrete mixers, tar boilers, white washing machines, etc. The Hassan unit is manufacturing agricultural implements like munties, axes etc.

The Second World War not only gave a greater impetus to all the industries but also made them self-reliant as foreign materials, machineries and spare parts could not be imported. The needs of the war front were also considerable as little could be imported. The industrial activity expanded substantially.

### **Public Sector Units**

After India became independent, Bangalore was selected as the venue for many Central enterprises. Among the public sector undertakings of the Central Government the following are important.

The Bharat Earth Movers Ltd., (BEM) commenced operations on January 1st 1965 in Bangalore. It is engaged in the manufacture of high technology transportation equipment. Bharat Electronics Ltd. (BEL) is engaged in the manufacture of Electronic and Communication equipments for use by Defence Sector, AIR, Meteorology Dept, and Post and Telegraph Dept. The Bangalore Complex has 19 Ancillary Units. Bharat Heavy Electricals Ltd., 1976 (BHEL) has produced for the first time truly distributed control system in the country. Hindustan Machine Tools Ltd. 1953 (HMT) has bagged two contracts for supply of machine tools worth Rs. 24.15 crore to Bulgaria and Soviet Union during the year 1987-88. It has also entered into an agreement to render technical assistance to telephone manufacturing unit in Algeria. It has a wrist watch unit also. Indian Telephone Industries Ltd., (ITI) is the first public sector undertaking set up in India in 1948 in Bangalore with five divisions, one each for manufacture of strowger, crossbar transmission, telephones and defence equipments respectively. It had also set up three more electronic switching units during the Seventh Plan Period.

Hindustan Aeronautic Ltd., (HAL) was established at Bangalore during 1940 by the noted industrialist, the late Walchand Hirachand with Central and State Governments as partners. It was originally intended to be an automobile factory. The pressure of the British manufacturers of cars forced the enterprise to switch over to aircraft servicing and assembling. At the time of the Second World War, repairing of aeroplane, over-hauling etc., was undertaken. The first fighter jet plane was manufactured within a period of six months from the date of inception of the unit. During the war time, the number of workers were around 16,000. After the war, the number of workers was reduced to 3,000. The Rail Coach Division of the HAL commenced functioning from 1947. During 1951, the

administration was taken over by the Ministry of Industries and Commerce and latter by the Defence Ministry.

HAL made a major contribution for a standardisation of road transport vehicles by producing pre-fabricated bus body which can be easily assembled by operators in their workshops. It was during 1964 that all the Aero Engine Units were amalgamated and called the Hindustan Aeronautics Ltd. The rail coach division was retransferred to BML. HAL has a very reliable and extensive maintenance division for the repair and over-haul of aircraft, aero engines, accessories and systems.

The wide product mix of HAL ranges from rotary and fixed wing aircraft of indogenous design to the manufacture of jet and piston engines to power them, matched avionics and accessories to obtain operations capabilities. It manufactures supersonic aircraft designed for specific strike, combat, interception, observation and surveillance roles equipped with advanced technology power plants, avionics, accessories and armament. The civilian needs like agricultural passenger, training and cargo uplift requirements are also met.

The Wheel and Axle Plant, Bangalore was commissioned on 15th Sept 1984 at a cost of Rs. 146 crores. The plant has unique features incorporating the latest designs and technology in the manufacture of wheels. At the time of installation the estimated capacity was 56,700 wheels and 23,000 axles. With the introduction of productivity linked incentives scheme in 1990 the plant capacity has been fixed at 67,500 wheels and 35,250 axles. In 1991-92 there were 69,887 wheels and 43,470 axles manufactured in this plant.

In addition to these industries, Southern Railway workshops at Mysore and Hubli and others are also noted Central Government public sector undertakings.

The Karnataka Government has been running many industrial enterprises. They are broadly divided into seven groups viz.

**Public Utilities :** (1) Karnataka Power Transmission Corporation Ltd., (2) Karnataka State Road Transport Corporation and (3) Karnataka Power Corporation.

**Financial institutions:** (1) Karnataka State Financial Corporation Limited and (2) Karnataka State Industrial Investment and Development Corporation Limited.

**Development Enterprises (non-commercial) :** 1) Karnataka S/C and S/T. Development Corporation Ltd., 2) Karnataka Backward Classes Development Corporation Ltd., 3) Karnataka State Police Housing Corporation Ltd., 4) Karnataka Minorities Development Corporation Ltd., and 5) Karnataka State Women's Development Corporation.

**Development Enterprises (Commercial) :** 1) Karnataka State Handicraft Development Corporation Limited, 2) Karnataka Agro Industries Corporation Ltd., 3) Karnataka Film Industries Development Corporation Ltd., 4) Karnataka Fisheries Development Corporation Ltd., 5) Karnataka Forest Development Corporation Ltd., 6) Karnataka Compost Development Corporation Ltd., 7) Karnataka Handloom Development Corporation Ltd. 8) Karnataka Leather Industries Development Corporation Ltd., 9) Karnataka State Electronics Development Corporation Ltd. 10) Karnataka Cashew Development Corporation Ltd., 11) Karnataka Inland Fisheries Development Corporation Ltd., 12) Karnataka State Coir Development Corporation Ltd. 13) Karnataka industrial

area development board. 14) Karnataka state industrial investment and development corporation.

**Service Enterprises:** (1) Karnataka Housing Board, 2) Karnataka State Warehousing Corporation, 3) Karnataka State Small Industries Development Corporation Limited, 4) Shree Kanteerava Studios Ltd., 5) Karnataka State Construction Corporation Ltd., 6) Karnataka Urban Development Corporation Ltd., 7) Karnataka State Tourism Development Corporation Ltd., 8) Karnataka Food and Civil Supplies Corporation Ltd., 9) Karnataka Land Army Corporation Ltd., 10) Jungle Lodges and Resorts Limited, 11) D. Devaraj Urs Truck Terminals Ltd., 12) Krishna Basin Lift Irrigation Corporation Ltd. and 13) Cauvery Basin Lift Irrigation Corporation Ltd.

**Manufacturing Enterprises :** 1) Mysore Sugar Company Ltd., 2) Mysore Paper Mills Ltd., 3) Mysore Lamp works Ltd., 4) Mysore Tobacco Company Ltd., 5) Mysore Paints and Varnishes Ltd., 6) Mysore Match Company Ltd., 7) Mysore Chrome Tanning Company Ltd., 8) Mysore Electrical Industries Ltd., 9) Hutti Gold Mines Company Ltd., 10) New Government Electrical Factory Ltd., 11) Mysore Acetate and Chemical Company Ltd., 12) Mysore Minerals Ltd., 13) Mysore Cosmetics Ltd., 14) Karnataka State Agro Corn Products Ltd., 15) Karnataka State Forest Industries Ltd., 16) Karnataka State Veneers Ltd., 17) Chamundi Machine Tools Ltd., 18) Karnataka Implements & Machines Company Ltd., 19) Karnataka Agro Proteins Ltd., 20) Karnataka Vidyuth Karkhane Ltd., 21) Karnataka Silk Industries Corporation Ltd., 22) Karnataka Soaps and Detergents Ltd., 23) Karnataka Milk Products Ltd., 24) Karnataka Co-operative Milk Producers Federation Ltd., 25) Karnataka State Textiles Ltd., 26) Karnataka Telecom Ltd., 27) Karnataka Plywood Ltd., 28) Karnataka Tungsten Moly Ltd., and 29) New Government Electric Factory (Hubli) Ltd.

**Marketing and Advertising Enterprises :** 1) Mysore Sales International Ltd., 2) Marketing Consultants and Agencies Ltd., 3) Karnataka State Seeds Corporation Ltd., 4) Karnataka Meat & Poultry Marketing Corporation Ltd., 5) Karnataka Silk Marketing Board Ltd., and 6) Karnataka small Industries Marketing Corporation Ltd.

Of the Industries of Post-War years, REMCO is notable. The Mysore Government established a company called, the Radio and Electrical Manufacturing Company Ltd., at Bangalore, in the year 1946 to manufacture radios and the components, electricity and water meters, PVC wires and cables. It has three divisions at present viz : Radio Division, Plastic Division and Metal Division. The capital invested for Radio Division was Rs. 25 lakhs, the then Government of Mysore holding 60 percent of the shares. The other two divisions are wholly owned by the State Government. Domestic and community radio receivers and their component parts are manufactured in the radio division, extended plastic insulated wires and cables. It has been taken over a subsidiary unit of Bharat Heavy Electricals Ltd.,

*The Karnataka State Forest Industries Corporation* was established during 1973 with a proposed equity share capital of Rs. 200 lakhs provided by the State Government. The following projects have been taken up by the Corporation viz, extraction of essential oils, cultivation of pine apple, cultivation of nutritional grasses, dehydration and pelletisation of the nutritional grasses and running of saw mills. The decorative veneer factory has been established in 1974 at Kavachur in Uttara Kannada District in collaboration with

the Italian Plywood Manufacturing Co., Ltd. (Dandeli). It produces attractive wood veneers of various types and colours. The Mysore Match Factory near Shimoga has been revived by an agreement entered into with West India Match Company. The saw milling activities have been further expanded by creating two units in Uttara Kannada.

*Leather Industries Development Corporation Ltd.*, (LIDKAR) was established in October 1976 in Bangalore. The primary objective of the corporation is to set up a common facility centre, establishing a raw material depot, financial assistance for various leather industries and establishing joint sector projects for tanneries, processing and manufacturing of leather goods.

*The Karnataka Vidyut Karkhane Ltd.*, was registered in 1976 with an authorised share capital of Rs. 200 lakhs. Its important objectives are to manufacture all kinds of electrical operators, electrical machines and equipments required for being used in connection with generation, transmission, distribution and utilisation of electricity, and all kinds of transformers, rectifiers, generators etc. It has secured orders for its transformers and motors from all over India and abroad.

*The Thungabhadra Steel Produce Ltd.*, was established near Hospet in 1952 which was originally started as a machinery division of the Thungabhadra Reservoir Project. It was converted into a Shutter manufacturing factory for the manufacture of gates, hoists, and penstocks. This is the only industrial unit which is a joint undertaking with the Government of Andhra Pradesh.

*The New Government Electric Factory (NGEF)* was established in Bangalore in 1961 in technical collaboration with AEG Telefunken of West Germany. It was converted into a joint stock company during 1965. It has the most up-to-date manufacturing facilities with separate factories for transformers, switch gears, motors, silicon power diodes and power rectifiers. The new addition to the NGEF product is the line of silicon power diodes and power rectifiers. It is making a significant contribution to the industrial development programmes in the country. Now the unit is in the red and efforts are on to privatise it.

*Karnataka Industrial Area Development Board* : Since its inception KIADB has acquired an extent of 58,865 acres and developed 81 industrial areas in an extent of 21,220 acres in all districts of the state. It has taken up programme of implementation of i) Export promotion, Industrial park at Whitefield Bangalore, ii) Mini Growth Centre in five locations, iii) Major water scheme for seven Industrial Areas, iv) Acquisition of land for airport during the year 1998-99.

### **Keonics**

In the industrial map of Karnataka, Electronics play a very vital role. It accounts for nearly 20 percent of the total Indian output of about Rs. 10,000 crores worth of items in 1994. In order to expand the electronics production base, KEONICS has promoted 10 joint ventures by participating in equity with foreign companies and Indian industrial houses. The Karnataka State Electronics Development Corporation (1976) is involved in the promotion of electronics industries in the State. KEONICS activities include establishment of its own manufacturing units, promotion of joint venture electronics units, providing package assistance to entrepreneurs, assisting industries in producing

raw materials and marketing of end products. It has established an electronic city on 300 acres of land about 18 km from Bangalore on the Bangalore-Hosur Road. Being the centre of electronics industries Bangalore has a large number of public sector electronics giants such as Bharat Electronics, Bharat Heavy Electricals Ltd., Hindustan Aeronautics Ltd., Hindustan Machine Tools Ltd., etc., which provide a market for the electronics goods.

### **Information Technology**

The information Technology industry is poised for accelerated growth in the near future. The state of Karnataka has been in the forefront as far as the location and growth of Information Technology industry is concerned. It proposes to have an increased focus on this sector and aims to provide the necessary infrastructure and environment that would facilitate and give impetus to the significant growth expected in the IT sector. It also proposes to go in for changes in the manner of functioning of the government machinery by introducing the system of E-Governance. For the first time in the country the state has formulated an industrial promotion policy for the Information Technology industry in June 1997 offering attractive incentives and concessional and other support for its growth.

The Department of Information Technology is a newly created department in which four organisations viz. Karnataka Government Computer Centre, Karnataka State Remote sensing application Centre Indian Institute of Information Technology, Bangalore and KEONICS has been brought under the administrative control of the Information Technology.

### **International Technology Park**

The International Tech park is a high tech park built to provide a one stop solution to multinationals and other conglomeration for conducting high tech business in India. It is a futuristic park built to exacting standards with the latest state of the art infrastructure and managed by professionals. The park houses corporate majors operating in a wide range of business such as information technology, biotechnology, telecom R & D, financial services and other IT related services. Located in whitefield, 18 km. from Bangalore, the ITP is spread over 27 hectares (68 acres) on perfectly landscaped habitat. It has taken some of the world's finest brain and corporate giant from Singapore and India to conjure upon this business paradise. The ITP has been jointly promoted by :

1. Tata industries Ltd, (47%)
2. Information Technology Park investment (P) Ltd., a consortium of Singapore Companies (47%)
3. Karnataka Industrial Area Development Board, a statutory body of the Government of Karnataka (6%).

A special Task Force has been created in December 1999 to prepare an action plan for the development of Information and Technology Industry. Infosys and Wipro are the other corporate giants in the software field who have grown in a big way.

### **Industrial Status**

As in other States, the power sector has been going through a major change in perception regarding the public-private sector mix in respect of both generation and transmission and the right approach to pricing to ensure efficiency in the use and costing

of power to different categories of consumers. At present, the public sector in Karnataka has a monopoly of both generation and transmission in the area of conventional energy sources like hydel and thermal power with limited captive power generation permitted for individual entrepreneurs along with sales to the grid. This approach has now been questioned and private power companies welcomed into the area of generation through carefully worked out legal and financial arrangements. A related issue that has gained prominence is the need to set up an independent regulatory framework to arbitrate on pricing issues between producers, consumers and government. Serious discussions have also commenced on this issue so that a formal mechanism is ready by the time independent power producers are likely to commence the supply of power in accordance with power purchase agreements executed with the government.

Karnataka State has evolved from a basically agricultural economy into an industrial one. Its ranking in the industry scenario in 1994 was as low as VIII in the country. The growth of industrial production in the State during the VII Plan was 6.6 percent compared to only 3.6 percent during VI Plan. This 6.6 percent growth is still less than the national industrial growth of 7.6 percent.

In 1993 there were about 723 large and medium scale industrial units with a total investment of about Rs. 6071.6 crores, employing about 2,77,547 persons in the State. The districtwise total number of Large and Medium Scale industries and workers engaged in them as on 31st March 1993 were as follows: The figures in brackets indicate the workers. Bangalore 323 (1,22,404); Belgaum 30 (16,960); Bellary 21 (8,421); Bidar 16 (2,611); Bijapur 9 (4,565); Chickmagalur 5 (2,638); Chitradurga 26 (3,211); Dakshina Kannada 34 (7,106); Dharwad 61 (9,728); Gulbarga 14 (10,508); Hassan 5 (1,027); Kolar 13 (27,630); Kodagu 2(375); Mysore 88 (20,020); Raichur 22 (9,576); Mandya 9 (5,015); Shimoga 15 (14,864); Tumkur 19 (5,199); and Uttara Kannada 11 (5,689).

The small and village industries comprise around 1,26,000 registered units with an investment of Rs. 1,275 crores and employment of nearly 8,70,000 persons. Besides there were about 8,00,000 unregistered units spread all over the State providing employment to over three million people. Out of total industrial units in the State in 2000, there were 35 sugar factories, out of which 29 units are working. Of the important units are those producing sugar, cement, paper, electric goods and electronic items and textiles including polyfibres.

### **Handlooms**

The traditional industry of weaving had been a major phenomenon in the State. There were 83,395 handloom units in the State in 1990, of which 10,126 units under cooperative fold, 14,395 units under corporate fold and 58,874 units under private/independent/master weavers. As per the 1995-96 census, there were about 89,127 powerlooms and 76,173 handlooms in the State. The Department of Handlooms and Textiles is implementing various schemes for the development of Handlooms, powerlooms and textile mills in the state. The state textile policy which was amended in the year 1993 envisages the overall development of ginning, pressing and spinning units and textile mills, handlooms, powerlooms, knitting and garment units. It contemplates training to handloom weavers,



setting up of a technology centre and the Powerloom Development Corporation, welfare schemes for handloom weavers, subsidy to electricity generating units in textile mills and the development of markets for handloom products and minimum wages to weavers. Handloom and Powerloom products worth 80 million metres and 138 million metres respectively were produced during 1997-98.

### Handicrafts

Karnataka with a rich heritage of tradition in arts and crafts, is one of the leading States in handicrafts industry. The handicrafts of the State include lacquerware, sandalwood carving, rosewood inlay work, pith work, toys and dolls, Bidiriware, decorative pottery, bronze work, cane and bamboo crafts, leather work, sculpture, gold and silver jewellery, brocade weaving, horn carving etc., There are about 1000 identified master artisans and the coverage of Handicraft Development Corporation is included to sixty percent, at present. The assistance given by the department to the craftsmen include supply of raw materials at subsidised rates, training of craftsmen and intensive development projects in various crafts. The Corporation has set up complexes for sandalwood, bidriware, inlay-works and laquer ware. It has set up six raw material depots and nine show rooms besides a bronze production and design centre at Bangalore and procurement centre for Kinhal toys.

There are 2,45,826 small scale units in the State with an investments of Rs. 43,569 crores providing employment to 14,69,388. The state is giving cash incentives and providing infrastructure to Small Scale Industries. The Canara Bank has also taken up a lead in organising two residential workshops, *Kausalya*, at Jogaradoddi in Ramnagaram and another at *Karkala*. Skilled craftsmen not only work here, but also train young persons in a variety of handicrafts.

#### Physical Targets and Achievements of Handicrafts (KSHDC)

	1999-2000	2000-2001	
	Target	Achievement	Target
a) Production (Rs. in Lakhs)	300.00	300.00	300.00
b) Employment (No. of Families)	3875	3875	3750

### Coir Industries

Karnataka ranks second in the production of coconut and has great potential for the development of coir industries. The State Government has set up a Coir Development Corporation for promoting coir based industries and to provide employment in Rural areas besides procurement-cum-distribution and training centres.

*Integrated Coir Development Project* : Rs. 200 lakhs have been provided of which Rs. 100 lakhs is grant and Rs. 100 lakhs is investment to assist 4 primary Coir Co-operative Societies and take up 18 programmes in the area of Manpower Development through the Karnataka State Coir Co-operative Federation Limited, Primary Coir Co-operatives Societies and

Karnataka State Coir Development Corporation. Rs. 4 crores have been provided as State's share to set up new mini tool rooms at Bagalkot, Bidar and Shimoga.

### Khadi and Village Industries

About 3 lakh artisans are employed in the Khadi and Village Industries, of whom, the Karnataka State Khadi and village Industries Board has been assisting 1.4 lakh artisans. The Board has taken steps to organise new institutions in the uncovered areas of the State. It also extends assistance for village industries like oil industry, carpentry, blacksmithy, leather industry, soap industry, mat weaving etc., It has also initiated a concerted drive to install biogas plants in the State. Karnataka is famous for producing national flags and printed khadi silk sarees in this sector.

Of the agro-based industries, bee-keeping is also notable and the Western Ghats districts like Kodagu, Hassan, Chikmagalur and Shimoga produce honey in large quantities.

### Physical Targets and Achievements

	1999-2000	2000-2001	
	Target	Achievement	Target
Khadi and village industries with in the purview of KVI Board production in KV & SI Sector (Rs.lakhs)	3000.00	3000.00	3000.00
VISHWA			
a) Training (No.)	4050	4050	4050
b) Production (No.)	12000	12000	12000

**Vishwa Programme :** Vishwa programme was launched in order to rejuvenate the traditional crafts and village industries and to provide self-employment to the youth while encouraging them to make use of the raw materials available locally. This programme was named after Sir M. Visweshwaraya. This was launched on 2nd October 1991. The programme is intended to overcome the scarcity of raw materials and proper marketing faced by craftsmen in rural Karnataka. This will enable them to prosper with their own traditional know how. Under this programme, it is envisaged to give institutional status to rural industries and crafts, to train the youth so as to enable them to take up proper industrial activity and to provide financial assistance to take up self employment.

### Sericulture

Mulberry is cultivated in about 1.40 lakh hectares in the state resulting in the production of about 78,198 mts. silkworm cocoons valued at Rs. 911 crores per annum. Sericulture is estimated as providing employment to about 3.5 lakh families. The value of raw silk produced

in the state is estimated to be Rs. 1007 crores. Cocoons and silk yarn are produced in villages, fabric production takes place both in urban and rural areas. Even landless persons rear silkworms and produce cocoons in their homes. One hectare of mulberry provides full time employment to the family as it is labour intensive throughout the year, 60% of those employed in the sector are women. Karnataka is in the forefront of silk production in the country with a production level of 8,944 mts. raw silk out of 14,048 tonnes of mulberry silk produced in the country (65%). Import of raw silk material is posing a threat to sericulturists.

### **Large and Medium Industries :**

The new Industrial policy of 1993 replaced the division of the State into zones by the three fold classification under which Bangalore and its surrounding became ineligible for subsidy, growth centres got a higher subsidy of 30% and other areas a subsidy of 25%. This was modified in 1996 and subsidy restricted to small industries, with medium scale industries being extended only sales tax incentives. Hitech and renewable energy projects, non polluting and exporting units were given special attention apart from exemption from power cuts and stamp duties.

In the 8th Plan 77 mega projects with investment of Rs. 54,700 crores and employment potential of 90,490 have been approved, Vijayanagar Steel Plant was started. Mangalore Refinery was commissioned, the Singapore Information Technology Park at Whitefield commissioned, a textile policy is announced, the National Institute of fashion Technology project is initiated, a software services support and education centre with ECC and Government of India and an Electronics Trade and Technology centre set up. Major projects approved include the TVS Suzuki two wheeler project with an investment of Rs. 150 crores, a heavy duty truck manufacturing facility by Volvo with an investment of Rs. 300 crores and a special purpose vehicle manufacturing unit of Telco with an investment of Rs. 300 crores. The high level committee has cleared seven major projects, important among them being construction of Equipment manufacturing plant of Elcon, two cement grinding units at Toranagallu and Kolar, a fertiliser plant of Jindal fertilisers Ltd. At Toranagallu, expansion projects of Mahadeshwara sugar along with a co-generation plant, a multi-disciplinary high technology R&D centre of GE India Technology Centre at Whitefield, Bangalore.

In 1999-2000, the high level committee cleared seven major projects involving investment of Rs. 11,108.28 crores. The state level single window agency cleared large and medium projects involving Rs. 1,862 crores despite the general economic and industrial slowdown in the country.

The state was able to attract in severe competition with other states, the prestigious project of the Toyota Motor Corporation covering an investment of Rs. 4,200 crores to establish an automobile unit for the manufacture of passenger cars.

### **POWER**

Karnataka was a pioneer in the development of hydro power and had a power surplus situation till the seventies. Due to rapid industrialisation and other structural problems it is facing acute power shortage. In 1998-99 against an unrestricted demand of 26,300 MUs

generation from the State Grid has only 17,245 MUs leaving a gap of 9055 mus. After the contribution of Central Stations to the extent of 5,549 MUs, the state is left with an annual deficit of 35,506 MUs. It is estimated that energy demand and peak load in the state at the end of the Ninth Plan (2000-2001) will be 31,208 MUs & 5,422 MWs respectively as per the 15th Power Survey Report of Central Electricity Authority. A major reason for the chronic power shortage is the dependence on hydel power. The hydel-thermal mix is 70:30, leaving the State with a heavy dependence on rainfall in the catchment area. Karnataka is endowed with hydro power potential of about 7,800 Mws of which only about 2,836 MWs has been harnessed, 472 MWs can be expected from hydro projects under various stages of execution. Environmental issues connected with the submersion of forests, rehabilitation of displaced persons as well as delay in the settlement of interstate disputes have affected the utilisation of available hydel power.

In 1887, Gokak Mills (formerly Gokak Water Power and Manufacturing Company) by an agreement with the Government of erstwhile Bombay State, made use of 170 ft falls of the Ghataprabha known as the Gokak Falls, to generate power at the foot of the hills for working their cotton ginning mills situated nearby. It is said that they generated water power with 3 units of 500 kw each in 1911 and one unit of 1000 kw in 1924 using Francis Hydro Turbines.

By 1902, the east-bound Cauvery had been harnessed to generate 4.3 MW at Shivasamudram making use of the Cauvery falls popularly known as Gaganachukki and Bharachukki. The electricity of this station was supplied to Kolar Gold Mines, a distance of 147 km through 78 KV transmission lines which at that time was the world's longest transmission line. Subsequently the generating station was extended by the second installation in 1903, the third in 1907, the fourth in 1914-15, the fifth in 1918 and the sixth in 1919. The seventh installations was sanctioned in 1925. The power generated in this station was supplied to Bangalore and Mysore cities besides important industrial concerns. The Shimsha power house was commissioned in 1940. It is located at the confluence of Shimsha and Cauvery rivers near Shimshapura village of Malavalli taluk (Mandya dt.) It has an installed capacity of 17.2. MWs.

The Mahatma Gandhi Hydro-Electric Station was established during 1947-48 on the west-flowing Sharavati near Jog Falls with an installed capacity of 48 MW. This project is producing the bulk of energy that is consumed by the State at present.

The Bhadra Power house is at the main dam on the Bhadra river and was commissioned in 1962. The Munirabad Power Station (1962) located on the left bank of the Tungabhadra Dam near Hospet has three generating units of 9MW each. The Right Bank Power House releases 14.40 MW of power to the State, which is 20 percent of the total production and the rest is utilised by Andhra Pradesh. The Kali Hydro-Electric Project was cleared for execution in March 1971. The work on Varahi Project has been commissioned.

The Raichur Thermal Plant is the first power plant of its kind in the State and is the first attempt to achieve the much needed power mix. It has the following seven units 1. RTPS Stage I commissioned on 29.3.1985 (210 MW); II on 2.8. 1986 (210 MW); III 3.10.1991 (210 MW); IV 29.9.1994 (210 MW); V on 31.1.1999 (210 MW) VI on 22.7. 1999 (210 MW); VII On 18.10. 2000 (210 MW). The Nuclear Power Project at Kaiga of Uttara Kannada

District put up by the Central Government, will bring in further diversification has been commissioned during 1993-94. It has already gone critical . The diesel power station at Yelahanka near Bangalore has also been commissioned.

During the year 1999-2000 the plan outlay was Rs. 672.18 crores and revised estimate was Rs.325 crores. It was programmed to create an installed capacity of 250 MWs. The third unit of Kodalalli dam and powerhouse (40 MWs) was commissioned in July 1999 in 34 months with considerable savings in project costs. Thus, the total installed capacity of 250 MWs. as per target was already achieved.

#### **Annual Plan 2000-2001**

The outlay for 2000-2001 is Rs. 454 crores to create an installed capacity of 135 MWs. by commissioning the first and second unit of Gerusoppa hydel Project (2x60 mw and uprating unit No. 1 of Nagjhari Power House (1x15 MWs.) The outlay includes an interest component of Rs. 60.39 crores. Project wise status are :

1. Kalinadi Hydro-electric Project stage II : Kodalalli Dam & Powerhouse
2. Kadra Dam and Powerhouse
3. Gerusoppa Hydel project
4. Bidadli combined cycle power plant
5. Non conventional energy sources
6. Sharavathi generating stations
7. Nagjhari generating station
8. Sarpadi project
9. Modernisation of Linganamakki & Varahi, Bhadra & Supa
10. Gangavalli Hydel project
11. Shivanasamudra seasonal scheme
12. Dandeli Dam and power house
13. Mahadayi Project
14. Vijayanagara Thermal project
15. Tattihalla augmentation Scheme

#### **Karnataka Electricity Board**

Unlike the electricity boards in other states, the Karnataka Electricity Board is vested mainly with the function of transmission and distribution. The KEB purchases power generated by Karnataka Power Corporation at the rates specified from time to time by the State Government. Another unique feature is that the two power houses in the Tungabhadra river situated in the State are owned and operated by Tungabhadra Board which is represented by the State Government of Karnataka and Andhra Pradesh and the Government of India, and 20 % of the energy generated by these stations is the share of Karnataka Electricity Board. Further, there is Central allocation to Karnataka from the national Thermal Power Corporation and other agencies. Karnataka has 16% share out of this. The following were the position of the KEB as on June 1993. 1) 53,45,805 installations, 2)45,381 workers 3) 354 sub stations with an aggregate capacity of 8233.95 MVA; 4) 3,78,543.366 Kms of distribution lines; 5) 79,665 distribution transformers with an aggregate capacity of 5,154 MVA; 6) 2,21,948 low tension installations and 8) 7,33,000 irrigation pump sets energised.

After corporatising Karnataka Electricity Board to Karnataka Power Transmission Corporation Ltd. on 1st August 1999, the Viswesvaraya Vidyuth Nigama Ltd (VVNL) was set up to control and maintain the generating stations (348 MW) which was earlier under the KEB. KPTCL has also constituted an eight in-house working groups for implementation of Reforms and restructuring. These working groups are actively functioning giving directions for successful implementation of reforms and restructuring in power sector.

Investigation, formulation, design, construction, operation and maintenance of power projects and generation of power in Karnataka is handled by the Karnataka Power Corporation, a wholly owned Stated Government company

### **Energy Potential**

Energy consumption and demand for energy has become exponential in view of the acute imbalance that developed in the power sector. At the end of VII Plan, power generation was 11,108 MW, whereas the demand was 19,756 MW leaving a gap of nearly 8,648 MW. In 1996-97 against an unrestricted demand of 26,409 MUS generation from the State Grid was 12210 MUS leaving a gap of 11,199 MUS. After importing from neighbouring states and the contibution are of Central Stations to the extent of 6,275 MUS, the state was left with an annual deficit of 4,924 MUS. The energy generation in 2000-2001 at 20,787 MUS was expected to show a decrease of 1.4 % over the 1999-2000 level of 21,092 MUS.

The power transmission and distribution system is said to be characterised by several weaknesses. There are heavy line losses, frequent load shedding and variation in voltage. The tempo of construction of major transmission lines and Sub-station and system improvement works has been intensified to bring down transmission distribution losses. To check theft the vigilance cell of the KPTCL has been strengthened. Tamper proof plastic tubes have been provided for suspect installations. The State Government further proposed to bring about necessary laws making theft of power a cognisable offence. The present Act did not provide for punishment to those involved in power theft.

### **Non conventional sources**

To promote renewable energy sources and to admit the availability of energy and provide viable options in wide range of applications, Government of India, has established a separate department in 1982 to exclusively deal with renewable energy technology for the same reason and for co-ordinating and integrating activities undertaken by the KPTCL Karnataka Power Corporation, KSCST and RDP and a separate organisation called KRED (Ltd.) (Karnataka Renewable Energy Development Ltd.) was established March 1996. Projects started under this scheme is in table on the page No.130.

### **Rural Energy :**

Near 90% of the energy consume by the rural people consists of non- commercial fuels like firewood, cowdung and agricultural waste which account for 40% of energy consumed in the country. The continued and wide spread used of the be sources of energy is resulting in the large scale distruction of environment through deforestation, atmospheric pollution, soil erosion and consquent loss of fertility. Next the renewable source of energy and maximumisation of pottential of bio-energy. The popularise bio-gas plans the state has initiated programme called Anila Yojana.

**Details of Power Projects functioning in the State as on 31-12-2000**

Sl. No.	Name of the Station State Sector	Type	Owner	1999-00
1.	Shivanasamudra	Hydro	KPTCL	42
2.	Shimsha	Hydro	KPTCL	17.2
3.	MGHE	Hydro	KPTCL	120
4.	Munirabad	Hydro	KPTCL	27
5.	Tungabhadra DPH	Hydro	KPTCL	14.4
6.	Yelahanka DG	Thermal	KPTCL	127.92
7.	Sharavathi HEP	Hydro	KPCL	1035
8.	Bhadra HEP	Hydro	KPCL	33.2
9.	Linganamakki DPH	Hydro	KPCL	55
10.	Nagjhari PH	Hydro	KPCL	825
11.	Supa DPH	Hydro	KPCL	100
12.	Varahi PH	Hydro	KPCL	230
13.	RTPS	Thermal	KPCL	1260
14.	Ghataprabha	Hydro	KPCL	32
15.	Mani	Hydro	KPCL	9
16.	Kalamala	Hydro	KPCL	0.4
17.	Sirwar	Hydro	KPCL	1
18.	Ganekal	Hydro	KPCL	0.35
19.	Mallapur	Hydro	KPCL	9
20.	Kappadagudda wind	Wind	KPCL	2
21.	Kadra	Hydro	KPCL	150
22.	Bhadra MHS	Hydro	KPCL	6
23.	Kodasalli	Hydro	KPCL	120
<b>Total</b>				<b>4216.47</b>
<b>Non-conventional energy Projects</b>				
1.	Ugar Sugar Works	Co-gen.	Pvt.	28.00
2.	Shamanur Sugars	Co-gen.	Pvt.	20.00
3.	ICL Sugars		Pvt.	12.00
4.	Shree Renuka Sugars		Pvt.	9.70
5.	Bannari Amen Sugars		Pvt.	16.00
6.	Haragi MHS		EDCL	9.00
7.	Narayanpur MHS		MPCL	11.60
8.	Rajan Kolur		BPCL	2.00
9.	Hemavati LBC		SMIORE	12.00
10.	Mallaprabha MHS		ISPL	2.40
<b>Total</b>				<b>122.70</b>
<b>Independent Power Projects</b>				
1.	Jindal Tractable Power Co.			100
2.	Shree Rayal Seema Alkalies			27.1
<b>Total</b>				<b>127.1</b>
<b>Grand Total</b>				<b>4466.27</b>

**Wind Energy Projects Commissioned in the State (Private Sector)**

<b>Wind projects</b>			
1.	BSES Ltd.	Jogimatti	7.6
2.	GIFSL LTD.	Jogimatti	9.6
3.	Indo Wind Energy Ltd.	Kappatagudda	4.1
4.	Jindal Aluminium Ltd.	Jogimatti	4.14
5.	Kirloskar Electric Co. Ltd.	Hargapurgad	2
6.	Renewable Energy System Ltd.	Chikkodi	3.5
7.	RPG Telecom Ltd.	Hanumasagar	2
8.	Victory Glass Industries	Kappatagudda	2
		<b>Total</b>	<b>34.9</b>

**Mini Hydrel Schemes Commissioned in the State (Private Sector)**

<b>Mini Hydrel Projects :</b>			
1.	Bhoruka Power Corporation Ltd.	Rajankolur	2.0
2.	Energy Development Corporation Ltd.	Haragi LBC	9.0
3.	SMIORE	Hemavathi LBC	12.0
4.	Tungabhadra Steel Products Ltd.	Malaprabha	2.0
5.	Bhoruka Power Corporation Ltd.	Shahapur I to VI	5.2
6.	Bhoruka Power Corporation Ltd.	Shivapur	18.0
7.	Cauvery Hydro Energy Ltd.	Shivanasamudra	3.0
8.	Dandeli Steel & Ferro Alloys Ltd.	Anvary MHS	18.0
9.	Kilara Power (P) Ltd.	Kilara	2.0
10.	Yuken Indian Ltd.	Attihalla	0.4
11.	Murudeshwar Power Corporation Ltd.	Narayanapura LBC	9.0
		<b>Total</b>	<b>82.1</b>



**Districtwise & Categorywise consumers serviced as on 31-3-1999**

Sl. No.	District	Domestic Lighting	AEH	Commercial Lighting	LT POWER		IP Sets	Street Lights	Total *
					Water works	Others			
1.	Bangalore	924729	680058	239380	3513	105501	111932	71696	2178436
2.	Belgaum	340340	46506	38864	91965	21466	121313	36534	667052
3.	Bellary	148957	19767	17949	1471	7487	39326	27702	307509
4.	Bidar	87721	8730	12298	1330	3732	39440	12022	200375
5.	Bijapur	190519	16838	27306	1839	12889	105288	38760	454168
6.	Chikmagalur	131295	14037	18058	1169	4820	23262	13195	225544
7.	Chitradurga	235043	36580	28499	2496	13547	63872	31235	474778
8.	Kodagu	50343	14745	8660	390	2095	3585	4288	85934
9.	Dharwad	344107	54300	51631	3005	17264	54194	62028	656306
10.	Gulbarga	157126	27931	30765	2084	10320	33274	44841	362999
11.	Hassan	189923	20937	22342	1749	7464	29047	32135	340339
12.	Kolar	273171	27989	32218	2930	11222	117401	33033	567158
13.	Mandya	193082	17602	23530	1613	14392	30846	27598	346393
14.	Mysore	341412	75104	47665	3335	20773	52228	51536	643448
15.	Uttara Kannada	128076	12770	18989	865	4702	26247	20176	261975
16.	Raichur	164737	12428	26438	1534	9016	47295	57027	358231
17.	Shimoga	228880	31427	29072	1701	13898	31522	29033	414297
18.	Dakshina Kannada	272738	89406	67741	1989	14136	79271	25356	557199
19.	Tumkur	296003	35014	27979	2053	13926	113630	38847	580146
	<b>Total</b>	<b>4698202</b>	<b>1242169</b>	<b>769384</b>	<b>37041</b>	<b>309050</b>	<b>1125933</b>	<b>657042</b>	<b>9702287</b>
* Excluding street lights									

**Details of Major Hydro Electric Stations under different Basins**

<b>Sharavathi Basin</b>	<b>Kali Basin</b>	<b>Varahi Basin</b>	<b>Kaveri Basin</b>	<b>Thungabhadra Basin</b>
Sharavathi 1035 MW	Supa 100 MW	Varahi 230 MW	Shiva 42.0 MW	Bhadra 33.2 MW
Linganamakki Dam 55 MW	Naghari 825 MW	Mani 9 MW	Shimsha 17.2 MW	Munirabad 27.0 MW
Mahatma Gandhi HEP 120 MW	Kodasalli 120 MW			TB Dam Powerhouse 14.2 MW
	Kadra 150 MW			Ghatapr-abha 22.0 MW
<b>Total 1210 MW</b>	<b>1195 MW</b>	<b>239 MW</b>	<b>59.2 MW</b>	<b>106.6 MW</b>

Source : KPTCL, Bangalore.

## Chapter VI

# BANKING, CO-OPERATIVES AND TRADE

**K**arnataka has made great strides in modern banking in India in the course of last one century. The functioning of organised sector of Banking was evidenced with the establishment of the branches of the then Presidency Banks, i.e., The Bank of Bombay (1840) and The Bank of Madras (1843) which opened their branch offices at Dharwad in 1863 and at Bangalore Cantonment in 1864 respectively. In course of time, many more branches of the Presidency Banks were opened at Belgaum (1867), Mangalore (1867), Hubli (1870) and Kumta (1872-73). Dhawad branch was opened mainly to facilitate the cotton traders of the Bombay-Karnataka area.

The Unorganised sector of banking was mainly dominated by the local Money lenders or *Sahukars*, *Zamindars* and traders. Money-lending was a profitable business. It was commonly practised by all communities. The Marwadis, Gujarathis, Jains, Mahajans, Chettiyars and Multhani bankers from the North came and settled in important trading centres of Karnataka. They are found engaged in money lending business even to-day. Bangalore Cantonment area was dominated by the European money lenders (including widows of army officers) together with the natives. During the British days even special civil courts were set up to settle such money lending disputes called as small causes courts.

In the absence of strict regulatory measures which came much later, specially after independence, the promoting of a banking company was much easier. Small banking companies with a limited capital base and inexperienced management were the common features. There was a mushroom growth of banking. Even in semi-urban and rural areas banks were promoted. Nearly half of the total number of banks born in the State were registered during 1930-1940. The Swadeshi movement also contributed much for the growth of commercial banking activities in the State, specially promoted by the local traders. Most of these banks had a limited life span. In those days, the banks were started with impressive names to attract the customers, especially on the basis of religion, caste and community. Many a times, local community spirit reflecting itself in commercial spirit contributed much for the faster growth of community banking. This tendency was very much evident specially in Dakshina Kannada (South Kanara), which is said to be the cradle of modern banking industry in Karnataka. The contributions of South Kanara district to the modern banking industry are unique. Branch banking was started here as early as in 1923. During the period of four decades 1906-1945, the district became the cradle and creche in nursing as many as 22 banks.

In different Parts of integrated areas of Karnataka, sporadic commercial banking activities were ushered in at different times based on local demand, expertise and economic potentialities. In princely Mysore the period of Commissioner's rule (1831-1881) was of

great significance which ushered in an era of modernisation by adopting the British system of administration in all spheres including banking. The establishment of Bangalore Cantonment in 1809, and shifting of the State Secretariat from Mysore to Bangalore in 1831 gave a fillip to commercial and industrial activity in Bangalore which was partly supported by the banking institutions.

The joint stock banks that were promoted in princely Mysore were Bangalore based banks i.e., Bangalore Bank Ltd and Mysore Bank Corporation Ltd., both registered in 1868 with a share capital of Rs. 7 lakhs and Rs. 2lakhs respectively. As said earlier, Bangalore City including the then Cantonment area had a rich potentiality and infrastructure which boosted the growth of banking both in the organised and unorganised sectors.

Between 1868-1876, there were nearly 24 banking companies operating in Bangalore City area. During the period of six decades i.e., from 1890 to 1949 about 12 banking companies were founded in Bangalore City but all did not survive. Among the Bangalore based banks, the Bangalore Union Bank founded in 1890 had a longest service of fifty years before its liquidation in 1940. The Devenga Bank (1926) was amalgamated with the Vijaya Bank in 1963. The Vysya Bank (1930) and the Bank of Mysore (1913) survived, the latter becoming State Bank of Mysore later.

The royal capital, Mysore, did not lag behind in promoting joint stock banks. In 1874 (six years later than Bangalore), two banking companies, viz., the Rajadhani Bank and the Town Bank of Mysore were promoted here and continued to function not beyond 1913. A decade thereafter, in 1885 Nanjangudu Srikanteswara Swamy Bank was promoted. This is the only bank which served for nearly 80 years till its licence was refused in 1965. During the period of two-and-a half decades (1884-1908) as many as 17 joint stock companies were promoted here, combining banking and trading. Among the oldest banks of the princely Mysore which are no more now, a mention may be made of Chitradurga Saving Bank founded in 1870 at Chitradurga which had a record service of nearly 96 years before its merger with Karnataka Bank Ltd in 1966.

### **Agricultural Banks**

In the year 1894, the Mysore Government had promoted a new breed of banks styled as Agricultural Banks, by adopting the principles of limited guarantee of joint-stock companies in their structure and co-operative principles in their *modus operandi*. These banks were mainly meant for extending agricultural credit to the poor farmers at a cheaper rate and to save the peasants from the ruinous interest rates and exploitation by the money lenders. By 1901, there were 64 such banks in the princely state. The credit facilities extended by these institutions at cheaper rate was misused by the big land holders. Many of these banks became defunct and by 1917 all these banks were closed. This was a unique experiment which failed due to lack of supervision and liberal financial assistance by the Government to these institutions

In the former Bombay-Karnataka area, where the urban co-operative movement was strong enough, the ventures for promoting commercial banks by the local merchants were very much limited. However, some of the earliest efforts to promote local commercial banks in this region were: the Union Bank of Bijapur and Sholapur (1908), Bagalkot Commercial Bank (1922), Sri Lakshmi Bank, Hangal (1929) of Dharwad Dt, Hubli City Bank (1930), Belgaum Bank, Belgaum (1930) and the Bank of Citizens (1939) Belgaum. The earliest commercial bank to be founded for Uttara Kannada district was Bank of Rural India founded at Karwar in 1940. By 1930-40, the Bombay and Mangalore based banks specially Canara, Syndicate, Corporation Bank, Union Bank, S.B.I., Central Bank of India opened their branches in the commercial towns of Bombay-Karnataka.

In the former Hyderabad-Karnataka areas, till the establishment of the State-owned Hyderabad Bank in 1941, there were no conspicuous commercial banking ventures. However, from Gulbarga district, the Saraswati Bank (1922), Gulbarga Banking Co, (1930), Commercial Banking Company, Yadgiri (1938) were some of the earlier banking enterprises. Raichur had two banks i.e., Sri Sharada Banking Co., (1937) and Osmania Aziz Bank (1933). Bidar had no commercial banks till 1946.

There have been remarkable changes in the banking in the country, specially after the nationalisation. Out of the 20 nationalised banks in the country, four are from Karnataka viz., Canara Bank (1906) and Vijaya Bank (1930) both originating from Mangalore, and Corporation Bank (1906) and Syndicate Bank (1925) both originating from Udupi. Among the private sector banks the Vysya bank Ltd., Bangalore (1930) and Karnataka Bank Ltd., Mangalore (1930) are the leading banks of the State, having branches outside the State also. Recognising the growing banking business in Karnataka the RBI opened its branch at Bangalore in 1953. The total number of employees working in the RBI Bangalore Branch office was 1695 as in September 1992. Since nationalisation, the concept of 'classbanking' has been transformed into the concept of 'mass banking'. Now, Banks are considered as active instruments in bringing the socio-economic transformation at the grass-root level. They are playing vital role in the implementation of economic policies of the State and the Central Government according to plan priorities. In lending, the policy of credit-worthiness of the purpose has dominated over the credit-worthiness of the person. There is a remarkable change in the lending policy of banking institutions. Now, lending policy is target and priority sector oriented. Both public sector and private sector including co-operative banks in the State have actively responded continuously to the national policies of banking. In the popular loan mela programmes (1985-1987), the banks of Karnataka did not lag behind; so also in the promotion of Grameena Banks. The innovative banking policies like Lead Bank Scheme, loans under D.I.R., IRDP, 20 Point Programmes, Anthyodaya, adoption of villages by commercial banks and co-operatives for their all round development, and the service area approach to lending in rural area etc., have been fully implemented by the banks working in the State. Many commercial banks in the State have diversified their activities towards merchant banking, leasing, housing etc.

Since 1976-77, after the establishment of Grameena banks, better and intensive banking services are provided in the rural areas. Now, rural area is better served than before in 1969. All the districts of the State are covered by the Grameena Banks which have reduced the imbalanced economic growth between the urban and the rural areas to a certain extent.

In 1990, in terms of ratio of number of banks serving per lakh population, Karnataka stood fourth rank in the country having 9.5 number of bank offices per lakh population, as against 7.1 bank offices at the all-India level. The developed States in this regard other than Karnataka were Gujarat, Haryana, Maharashtra, Punjab and West Bengal. From among the list of developed states, the rank of Karnataka was 2nd. The spread of banking services in the rural areas was much better in Karnataka when compared to some other developed States. The spread of number of banks in rural segments per lakh population was 8 in the State, being next only to Punjab where it was 9. The Credit Deposit ratio of rural banks in the State was the highest among the States i.e., 107.4% in June 1990, as against all-India C.D.R. of 65.2%. The C.D. ratio of semi-urban branches also was the highest in Karnataka (76.9), compared to the national ratio of 50.5%. The geographical spread of rural branches in the State which was only 25% in June 1969 had increased to 55% in March 1989. This was mainly due to rapid expansion of Grameena Banks all over the State. The lending of commercial banks to priority sector including weaker section exceeded the stipulated target of 40% fixed by the R.B.I. In Karnataka, of the total lending, the share of priority sector was 45% (Rs. 3,487 crores) as in 1991.

Karnataka was in the 8th rank among the major States in per capita deposit, which being Rs. 2,362. The per capita advance was Rs. 1,844 which was higher than the national average of Rs. 1,570, though it was lower than Maharashtra (Rs. 3,801), Punjab (Rs. 2,201), and Tamilnadu (Rs. 2,438). The deployment of credit was better in the State compared to all-India figures. The total investment made by commercial banks in Karnataka in the State/Central Government loans floated during 1991-92 were as follows: Central Rs. 64 crores, State Development Loan Rs. 14.10 crores; other State Loans Rs. 4.50 crores (RBI Report). Some key indicators of commercial banks in the State as in March 1992 were as follows:- C.D.R.: 77.2%; Loans under D.I.R: Rs. 7167.3 lakhs; Loan under 20 point economic programme: Rs. 1,21,513 lakhs; Loans under IRDP: Rs. 26,174 lakhs; Priority sector advances: Rs. 3,47,005 lakhs; percentage of priority sector to total advances 42%; per branch deposit Rs. 251.75 lakhs; per branch advance Rs. 194.24 lakhs; rural deposits: Rs. 1,57,318 lakhs; rural advances: Rs. 1,24,724 lakhs.

Karnataka has a better banking network than many states. Apart from the 19 nationalised banks, State Bank of India and its 7 associate banks are operating in Karnataka. There are also over 25 private sector banks and 13 Regional Rural Banks in the State. There were 4,627 commercial bank branches (including 1,080 branches of 13 Regional Rural Banks) in the State as in March 1999 of which 2,246 were in rural areas. The share of

rural branches was 49% against 25% at the time of nationalization. As in March 1999 the average per branch population for the state was 10,000. The deposits of commercial banks (including Regional Rural Banks) stood at Rs. 35,656.53 crores and Advances amounted to Rs. 22931 crores at the end of March 1999. The credit deposit ratio of the state works out to 64% against the RBI stipulation of 60%. The priority sector advances amounted to Rs. 9710.46 crores in 31st March 1999, which works out to 42% of total advances against the RBI stipulation of 40%. The direct agricultural advances in the state stood at Rs. 4910.99 crores (21.4% of total advances) which was well in accordance with the norm (18%) stipulated by the RBI. The weaker section advances in the state stood at Rs. 2,873.25 crores (12.5% of total advances against the RBI stipulation of 10%). While the per branch business for the state as a whole works out to Rs. 12.65 crores, that for rural branches is significantly lower at around Rs. 4.15 crores. For the country as a whole it was Rs. 16.76 crores and Rs. 4.38 crores respectively. In 1998-99, 88,000 families were assisted under the Integrated Rural Development Programme (IRDP) to the tune of Rs. 130.22 crores.

The major Banks operating in Karnataka (with total branches shown in brackets) as in 1999-2000 are Canara Bank (520), State Bank of Mysore (493), Syndicate Bank (477), Vijaya Bank (399), State Bank of India (308), Corporation Bank (207), State Bank of Hyderabad (113); other nationalized banks are Allahabad bank (14), Andhra Bank (19), Bank of Baroda (38), Bank of India (59), Bank of Maharashtra (41), Central Bank of India (54), Dena Bank (23), Indian Bank (61), Indian Overseas Bank (60), Oriental Bank of Commerce (5), Punjab National Bank (40), Punjab & Sind Bank (5), State Bank of Patiala (4), State Bank of Bikaner and Jaipur (3), State Bank of Indore (1), State Bank of Saurashtra (2), State Bank of Travancore (10), UCO Bank (24), Union Bank of India (92), United Bank of India (7); other commercial Banks are Karnataka Bank Ltd. (248), Vysya Bank (109), Bank of Madura (6), Bank of Rajasthan (1), Bharat Overseas Bank (2), City Union Bank (3), Dhanalakshmi Bank (5), Federal Bank Ltd. (10), Ganesh Bank of Kurundwad (6), Jammu and Kashmir Bank (1), Karur Vysya Bank (11), Lakshmi Vilas Bank (16), Nedungadi Bank (5), Ratnakar Bank (12), Sangli Bank (28), South Indian Bank (15), Tamil Nadu Mercantile Bank (5), United Western Bank (3), Development Credit Bank (NA), Lord Krishna Bank (NA), U.T.I. Bank (NA), ICICI Bank (NA), Global Trust Bank (NA), Centurian Bank (NA), HDFC Bank (NA), IDBI Bank (NA), Industrial Bank (NA), The Regional Rural Banks which are operating are Bijapur Grameena Bank (85), Cauvery Grameena Bank (123), Chikamagalur Grameena Bank (46), Chitradurga Grameena Bank (93), Kalpatharu Grameena Bank (88), Kolar Grameena Bank (61), Malaprabha Grameena Bank (227), Netravathi Grameena Bank (22), Krishna Grameena Bank (105), Sahyadri Grameena Bank (29), Tungabhadra Grameena Bank (160), Varada Grameena Bank (28), Visveswaralah Grameena Bank (25), The Foreign Banks operating are ANZ Grindlays Bank PLC, Hongkong & Shanghai Banking corporation, City Bank N.A., BNP Paribas, Standard Chartered Bank, Deutsche Bank, Bank of Nova Scotia, Abu Dhabi Commercial Bank, Bank of Muscat International, Societe General.

The tables given here indicate the information of banking activities in the State.

**District-wise distribution of the number of Branches, Aggregate Deposit and Gross Bank Credit of Scheduled Commercial Banks in Karnataka from 1969 to 1997-98.**

(Amount in Crores Rs.)

District		1969	1980	1990-91	1993-94	1997-98
1		2	3	4	5	6
Bangalore	Branches	150	540	637	657	755
	Deposits	101	792	4820	6538	15190
	Advances	90	727	4304	5493	12310
Bangalore (Rural)	Branches	-	-	101	102	107
	Deposits	-	-	132	184	348
	Advances	-	-	111	138	225
Belgaum	Branches	64	201	282	284	306
	Deposits	18	122	594	783	1414
	Advances	8	62	370	423	771
Bellary	Branches	30	111	172	172	175
	Deposits	5	43	231	329	572
	Advances	7	45	227	289	481
Bidar	Branches	7	36	90	92	93
	Deposits	1	11	99	139	257
	Advances	1	8	72	91	167
Bijapur	Branches	40	118	239	240	244
	Deposits	6	47	295	404	905
	Advances	3	26	192	251	495
Chikmagalur	Branches	31	79	130	130	132
	Deposits	5	45	202	266	559
	Advances	4	37	173	210	584
Chitradurga	Branches	21	80	195	199	203
	Deposits	4	39	236	321	560
	Advances	6	33	206	240	447
Dakshina Kannada	Branches	168	372	462	472	496
	Deposits	40	257	1370	1928	3020
	Advances	23	144	855	884	1336
Dharwad	Branches	63	203	326	332	349
	Deposits	16	110	568	778	1412
	Advances	6	67	363	455	784



Gulbarga	Branches	19	107	168	170	170
	Deposits	4	34	253	360	724
	Advances	2	19	180	217	413
Hassan	Branches	32	85	155	155	163
	Deposits	4	41	218	293	579
	Advances	3	28	165	196	378
Kodagu	Branches	27	68	108	108	109
	Deposits	6	42	178	250	523
	Advances	3	25	109	121	285
Kolar	Branches	20	84	185	186	185
	Deposits	3	39	222	302	547
	Advances	1	22	163	187	354
Mandya	Branches	16	72	127	127	127
	Deposits	2	27	151	199	356
	Advances	1	15	113	132	221
Mysore	Branches	48	189	251	257	266
	Deposits	16	111	650	896	1707
	Advances	8	79	458	545	969
Raichur	Branches	26	101	161	162	163
	Deposits	3	33	212	280	529
	Advances	3	32	187	221	455
Shimoga	Branches	36	111	175	180	181
	Deposits	8	53	288	380	680
	Advances	14	51	278	314	522
Tumkur	Branches	19	88	179	182	184
	Deposits	4	39	244	328	569
	Advances	1	23	154	193	315
Uttara Kannada	Branches	34	105	157	158	164
	Deposits	7	48	253	340	630
	Advances	2	20	113	128	240
Karnataka (Total)	Branches	851	2750	4300	4364	4572
	Deposits	255	1934	11216	15298	31882
	Advances	186	1460	8793	10728	21753

\* Deposits and Advances were rounded off to the nearest crore of Rupees and hence the district totals need not tally with the State Figure

Note : Since 1986 Bangalore District has been bifurcated into Bangalore Rural District and Bangalore District.

Source : 1. Pigmy Economic Review Feb. 1984, Syndicate Bank.

2. Karnataka at a glance 1990-91, 1993-94 and 1997-98, Directorate of Economics & Statistics, Bangalore.

Districtwise (including bifurcated and newly formed) distribution of number of branches, aggregate Deposits and Advances of commercial Banks in Karnataka as at the end of March 2000.

(Rs. in Crores)

Sl. No.	District	Branches			
		Commercial Banks	Grameena Banks	Total deposits	Total loans
1.	Bangalore	804	12	22638	15027
2.	Bangalore (R)	83	29	473	273
3.	Chitradurga	50	67	395	261
4.	Davanagere	85	44	519	459
5.	Kolar	121	59	736	408
6.	Shimoga	131	27	905	586
7.	Tumkur	137	47	767	437
8.	Belgaum	216	100	2007	988
9.	Bijapur	82	43	577	343
10.	Bagalkot	77	43	718	355
11.	Dharwad	141	43	1405	760
12.	Gadag	44	35	295	173
13.	Haveri	48	48	305	227
14.	Uttara Kannada	138	29	917	317
15.	Bellary	93	64	758	633
16.	Bidar	57	38	384	209
17.	Gulbarga	98	75	980	529
18.	Raichur	48	46	467	386
19.	Koppal	34	38	274	264
20.	Chikmagalur	107	27	714	779
21.	Dakshina Kannada	296	11	3438	1362
22.	Udupi	191	11	1990	605
23.	Hassan	122	43	733	511
24.	Kodagu	91	19	654	445
25.	Mandya	102	25	489	286
26.	Mysore	181	58	2090	1211
27.	Chamarajanagar	31	21	182	111
	<b>STATE</b>	<b>3608</b>	<b>1102</b>	<b>45809</b>	<b>27950</b>

Source : Karnataka at a Glance 1999-2000, Directorate of Economics and Statistics, Bangalore.

### Co-operative Movement

Karnataka has a fascinating history of Co-operative Movement. Co-operative culture in various economic activities in the State is clearly evident. It is deep-rooted since the official launching of the movement in 1904. The first primary agricultural credit society to be founded in the country was at Kanaginhali (Gadag taluk) of Gadag district on 8th May 1905, and it is still functioning. Similarly, the first Urban Co-operative credit society to be organised in the State was at Betageri on 18-10-1905 (Gadag Dt., now defunct). The Swadeshi Movement of 1905 inspired many local leaders and social workers to start the co-operatives to cater to their local needs. Bangalore City Consumers Co-op. Society started in December 1905 is said to be the first Co-operative institution in princely Mysore. By 1906, the places like Belgaum, Gokak, Mysore, Hubli, Dharwad and Sira were having urban co-operative Banks.

The erstwhile princely Mysore State had promoted a unique breed of financial institutions called "Agricultural Banks" in 1894, a decade earlier to the official launching of the Co-operative Movement by the Government. The *modus operandi* of agricultural banks was such that they had imbibed co-operative principles though their constitution was of public company, limited by guarantee.

Since 1912, the diversification took place in the Co-operative Movement. In course of time, non-agricultural and non-credit societies emerged in large number all over the state. In the early years, the Governments of Princely Mysore and the Bombay Presidency earnestly encouraged the spread of the movement in rural areas by extending special incentives and appointment of honorary co-operative supervisors to guide the co-operative institutions.

It is interesting to know that in order to cater to the needs of the local people, special economic activities like fencing, hunting, bunding, cattle breeding, insurance, farming, grain banks, fisheries, forest labour, special marketing, education, irrigation, house building, consumer goods selling etc., were undertaken under co-operative sector much earlier.

Holding the taluk and district level co-operative conferences to review the progress of the movement was regular feature in Bombay-Karnataka area in 1920-1930. In order to propagate the principles of co-operation in the rural areas and to have a mass appeal there was a special drama troupe to propagate the idea of co-operation at Amminabhavi of Dharwad Dt. Many of the District Central Co-operative banks, specially the banks working at Dharwad, Madikeri, Sirsi, etc., came to the help of groaning indebted farmers during the Economic Depression of 1929-30 when the movement in general had also received a setback. Many of the farmers could not pay their overdues to the banks. Though these co-operative banks purchased the pledged properties of the debtors, the same was returned to them without any profit when the debt was cleared. This spirit of co-operation helped those co-operative banks to grow further when the economic conditions improved. Many banks arranged debt reconciliation boards for settlement of loans.

Karnataka has many firsts in the co-operative ventures in the country. The Hubli Cotton Sales Society Ltd., Hubli organised in 1915 is considered to be the first Indian co-operative marketing society. The Farmers Service Society (FSS) sponsored by Canara Bank

in 1973 at Bidadi in Bangalore District is such first society in the country. Similarly, the Sports Promotion and Development Society at Chandargi of Belgaum District is a unique organisation of all-India importance founded in 1984. Hulkoti Co-op. Education Society (1921), J.G. Co-operative Hospital at Ghataprabha (1951, Belgaum Dt.) and Rural Electricity Society at Hukeri of Belgaum Dt. (1969) are some of the earliest special types of co-operatives in the State. The Hiranyakeshi Co-op. Sugar Factory of Sankerswar of Belgaum Dt. founded in 1956 is considered as one of the best co-operative Sugar Factories in the State. (These are the few examples). Karnataka is one of the leading States in the country where the urban Co-op. Bank movement has emerged strong. Karnataka ranked 3rd in the country next only to Gujarat and Maharashtra. Karnataka is the first State in the country to have the Federation of Urban banks (1965).

It is conspicuous that after the Reorganisation of the State, the orbit of the Co-operative movement has been expanded in all its spheres. Some of the apex institutions at the district and the State level have established their record growth vertically and horizontally. Increased financial participation in the form of share capital, subsidy, grants etc. by the Central and State Government, N.C.D.C. etc., have facilitated the increase in the number of co-operatives. Many of the major industries like spinning, cotton processing, textile, sugar, tiles, food processing etc., have been started in the State in the co-operative sector.

During 1976-77, most of the economically non-viable, weak primary societies were amalgamated. This process of amalgamation on large scale, strengthened the base of primary societies and their number was reduced considerably.

Recognising the prominent position of the State in the co-operative sector, the Institute of Co-operative Management was founded in Bangalore (1962). In 1990, the National Agricultural and Rural Development Training Institute was founded at Bangalore to train the bank and co-operative sector officials.

The district-wise number of co-operative institutions (including defunct) in the State as on 30th June, 1992 was as follows: Bangalore City 1,906, Bangalore rural 1,300, Kolar 1,617, Tumkur 1,289, Chitradurga 1,183, Shimoga 918, Belgaum 2,570, Dharwad 2,324, Bijapur 1,315, Uttara Kannada 676, Mysore 1,821, Mandya 1,252, Hassan 962, Chikmagalur 407, Kodagu 411, Dakshina Kannada 1,186, Gulbarga 995, Raichur 719, Bellary 865 and Bidar 762.

The district-wise number of co-operatives (including under liquidaton) in the State as on 31-3-1999 was as follows : Bangalore (Circle I) 623 & (Circle II) 1257, Bangalore Rural 1377, Kolar 1949, Tumkur 1238, Chitradurga 650, Shimoga 785, Belgaum 3387, Dharwad 1015, Bijapur 933, Uttara Kannada 830, Mysore 1414, Mandya 1372, Hassan 1006, Chikmagalur 477, Kodagu 360, Dakshina Kannada 760, Gulbarga 1382, Raichur 572, Bellary 908, Bidar 764, Davanagere 970, Bagalkot 1136, Haveri 922, Gadag 862, Chamarajnaragar 498, Udupi 499 and Koppal 427.

The table given in the next page indicate the comprehensive picture of the decadal growth of co-operative societies in Karnataka in the last four decades.

**Decadal Growth of the Co-operative Societies in Karnataka  
in the Last four Decades**

No.	Particulars	1961	1971	1981	1991	1995	1998	1999
1.	Primary Co-operative Agricultural & Rural Development Banks	118	170	177	177	177	177	177
2.	Primary Agricultural Credit Societies	9107	8675	4871	4350	4277	4392	4437
3.	Grain Banks	1027	851	844	151	149	141	130
4.	Urban Banks	NA	210	239	223	227	275	296
5.	Employees and other Co-op. Credit Societies	NA	766	1594	1599	1861	2298	2208
6.	Marketing Co-operative Societies (Gl.purpose)	259	207	192	189	184	215	215
7.	Specialised Comodity marketing Co-operative Societies	NA	62	144	340	460	435	436
8.	Processing Co-operative Societies	29	40	69	32	31	125	120
9.	Farming Co-operative Societies	144	499	595	242	242	149	133
10.	Milk Supply Co-operative Societies	70	617	2577	6291	7281	7685	7703
11.	Live Stock Co-operative Societies	NA	63	90	73	72	61	95
12.	Irrigation Co-operative Societies	35	63	225	564	583	396	303
13.	Fisheries Co-operative Societies	70	123	193	272	316	339	351
14.	Consumer Co-operative Societies	395	1302	1541	1650	1797	1941	1635
15.	Housing Co-op. Societies	350	920	1309	1606	1589	1433	1294
16.	Weavers Co-op. Societies	621	798	831	726	696	927	641
17.	Industrial Co-operative Societies	1064	1835	1892	1001	1390	1400	1439
18.	All other types of Co-operative Societies	1388	55	1368	1439	1944	1970	2125
19.	Societies under Liquidation	277	2175	4408	4158	2627	3984	4635
<b>Total</b>		<b>14954</b>	<b>19431</b>	<b>23159</b>	<b>25083</b>	<b>25903</b>	<b>28343</b>	<b>28373</b>

**Growth of Co-operative Movement in Karnataka for some years  
during the last decade**

(Rs. in lakhs)

Year	No. of Co-op. Societies	Membership	Share Capital	Working Capital
1990-91	25083	11800000	43108.00	315833.00
1994-95	25903	13326000	70411.02	686091.00
1995-96	26411	13558480	76565.76	1026550.86
1996-97	27249	14241000	93902.52	1179683.94
1997-98	28343	14794000	105096.70	1618022.96
1998-99	28373	18323000	134226.60	1662157.55

Source : Registrar of Co-operative Societies in Karnataka, Bangalore.

### Regulated Markets

Establishment of regulated markets specially for agricultural produces went a long way in providing fair and remunerative prices to the growers. The need for the establishment of Regulated Markets specially in respect of agricultural produces was keenly felt as early as in 1928 by the Royal Commission on Agriculture. In different parts of integrated Karnataka efforts were made to establish regulated markets in a phased manner depending upon the potentialities. In the former Bombay Karnataka area, as early as in 1927, major cash crop cotton was the first commodity to be brought under regulation under the Bombay Cotton Market Act 1927. In the former Hyderabad Karnataka area regulated markets came into being in 1930. In the Madras-Karnataka area, Madras Commercial Crop Act of 1933 was ushered in to regulate the marketing of commercial crops. In a tiny State Kodagu, coffee being the main commercial crop, marketing of it was covered under Coffee Marketing Expansion Act 1942, and Coffee Act of 1942 of the Central Government.

In the former Mysore State, Mysore Agricultural Produce Markets Act 1939 was enacted for the purpose. The First Market Committee to be established in old Mysore was at Tipatur under which the trade of copra and coconut was regulated. The Reorganisation of the State in 1956 brought in its control 54 regulated markets governed under different Marketing Legislations that were in force including marketing personnel and market committee officials. In 1966, an Act, more comprehensive, uniform and applicable to the entire State known as Karnataka Agricultural Produce Marketing (Regulation) Act was enacted and brought into force from May 1968.

There is a State Agricultural Marketing Board (1978) to guide, regulate, co-ordinate and finance developmental activities of regulated markets in the State. The activities of the Board are mainly promotional. Karnataka is the first State in the country to manage a college at Hubli (1964) for training of officials and other members engaged in agricultural

marketing and allied activities. Again Karnataka is the first State to cover *hamals*, cartmen and weighmen of the A.P.M.Cs. under group insurance. APMCs. are extending short term loan to farmers upto Rs. 50,000 on pledge of produces.

Since the implementation of the Regulated Markets Act in 1968, efforts are being made to bring more and more new areas and notified commodities under the regulation. By 1978-79, the number of markets increased to 115, and that of sub-markets to 201. With this, Karnataka ranked 6th in the country in respect of regulated markets and sub-markets. By 1991-92, the State had 116 main markets and 303 sub-markets. The Division-wise distribution of market and sub-markets were : Belgaum 39 (118), Bangalore 33 (72), Gulbarga 26(63), Mysore 18(50) (The number in the brackets indicates the number of sub-markets). In 1998-99 the State had 140 main markets and 333 sub-markets. The Division-wise distribution of main markets and sub-markets were : Belgaum 42 (125), Bangalore 36 (85), Mysore 35 (56) and Gulbarga 27 (67). (brackets indicate sub-markets)

The largest number of Main Markets are in Belgaum and Tumkur districts with 10 each. Even in the case of sub-markets Belgaum district has the largest i.e., 32 followed by Uttara Kannada district with 24. The number Regulated Markets are more in the former Bombay-Karnataka area because of the earlier implementation of the Regulated Markets Act and the coverage of the wider areas under the market regulations.

#### Districtwise Number of Regulated Markets as on 31-3-1999

Sl. No.	District	Main Market	Sub Market	Total	Turnover (Rs. in Crores)
1.	Bangalore	2	6	8	1011
2.	Bangalore (R)	3	11	14	34
3.	Chitradurga	4	10	14	304
4.	Davanagere	5	9	14	240
5.	Kolar	8	14	22	129
6.	Shimoga	4	14	18	528
7.	Tumkur	10	21	31	228
8.	Belgaum	10	32	42	273
9.	Bijapur	3	13	16	141
10.	Bagalkot	5	15	20	131
11.	Dharwad	5	12	17	284
12.	Gadag	5	17	22	164
13.	Haveri	6	12	18	296
14.	Uttara Kannada	8	24	32	302
15.	Bellary	6	14	20	199
16.	Bidar	5	9	14	88
17.	Gulbarga	7	22	29	140
18.	Raichur	5	10	15	424
19.	Koppal	4	12	16	382

1	2	3	4	5	6
20.	Chikmagalur	5	10	15	89
21.	Dakshina Kannada	3	4	7	290
22.	Udupi	4	4	8	86
23.	Hassan	6	16	22	129
24.	Kodagu	3	3	6	105
25.	Mandya	4	9	13	165
26.	Mysore	7	6	13	270
27.	Chamarajanagar	3	4	7	68
	<b>STATE</b>	<b>140</b>	<b>333</b>	<b>473</b>	<b>6500</b>

Source : Karnataka at a Glance 1999-2000, Directorate of Economics and Statistics, Bangalore.

### Important markets

There are certain important markets for certain notified commodities, spread all over the state. Based on the quantity of arrivals of notified commodities during 1990-91, the following are the important regulated markets for some important produces :

**Cotton** : Raichur, Gadag, Hubli, Davanagere, Dharwad, Chitradurga, Bellary, Nargund, Ranebennur, Bailhongal, Soundatti, Kundgol and Annigeri.

**Groundnut** : Gadag, Ranebennur, Hubli, Bijapur, Talikoti, Ramdurg, Davanagere, Badami, Gokak, Gulbarga and Challakere.

**Dry Chillies** : Byadagi, Ranebennur, Haveri and Hubli.

**Jaggery** : Bagalkot, Bijapur, Belgaum, Mahalingapur, Bhadravathi, Banargarpur, Jamkhandi, Chamarajanagar, Mandya, Kollegal and Sankeshwar.

**Areca** : Shimoga, Sagar, Sirsi, Mangalore and Kumta.

**Coconut** : Kadur, Tarikere, Mangalore, Tiptur, Arsikere, Chamarajanagar, Mandya and Channarayapatna.

**Fruits, Flowers & Vegetable** : Bangalore, Mysore, Belgaum and Dharwad.

**Paddy** : Mandya, Shimoga, Raichur, Harihar, Davanagere, Gangavathi, Hospet, Sindhnoor, Hangal, Sirsi, Honnavar, Gonikoppal, Mangalore and Kollegal.

**Jowar** : Hubli, Gadag, Haveri, Belgaum.

**Wheat** : Hubli, Gadag, Bijapur and Belgaum.

**Ragi** : Hosadurga, Gadag, Bijapur and Belgaum.

**Tur and Dal** : Gulbarga, Bidar, Yadgir, Sedam and Raichur.

**Betel leaves** : Honnavar, Dharwad, Ranebennur, Savanur, Tumkur and Channapatna.

**Onion** : Bangalore, Chickballapur, Davanagere, Challakere and Mysore.

**Potato** : Mysore, Malur, Chikballapur, Bangalore and Hassan.

**Spices** : Madikeri, Gonikoppal, Mudigere and Sakleshpur.

**Silk** : Ramanagar, Channapatna, Kanakapura, Sidlaghatta, Vijayapura and Kollegal.





## Chapter VII

# TRANSPORT AND COMMUNICATIONS

**E**xistence of early road system and flourishing trade centres in ancient Karnataka have been recorded in early inscriptions. A Copper plate record (713 A.D.) of Shivamara I from Hallegere in Mandya district refer not only to the construction of a bridge across Kilini river, but also a 'Rajapatha' (Highway) passing across the village. Likewise according to a record of 1123 A.D., a big road was connecting Terdal and Halasi, two important commercial centres in North Karnataka. A Chola inscription reveal about a major road running from Tanjore to Kalyana (Basava Kalyana, the Chalukyan capital). Another big road or 'Doddamarga' was connecting Konkan area with the interior Karnataka and a place on the borders of Goa has that name even now. There were *aravattiges* (where drinking water was provided), choultries and shady groves all along such roads. Ferries and boats were operating across rivers and streams. Goods were transported on head load, bullocks, asses or he-buffaloes. Carts were moving wherever roads existed. One bridge was connecting Hampi and Anegondi across the Tungabhadra river. Similar old bridges can also be seen at Srirangapattana and Shivanasamudra.

Construction of systematic roads in the Bombay Karnataka area was started only after 1856. Among them, Belgaum-Hubli road on the Pune-Harihara route and Dharwad-Mundgod-Sirsi-Kumta roads were prominent. The oldest road in the Gulbarga area, is the road from Gulbarga to Firozabad *via* Kotnur, Nandikere, Sirur and Parwatabad. The road development activity in the Kodagu area was started actually after 1834, by the British. Some roads opened or improved in Dakshina Kannada District between 1837 to 1843. Madras was connected with Mangalore *via* Bangalore, Mysore and Madikeri. The Mangalore road which runs through Sampaje Ghat from Madikeri was started in 1837. In the early days, condition of roads in Bijapur district were not satisfactory. There were only two roads in 1820, and the first one was between Shikaripur to Bijapur and Sholapur while the second one connecting sea coast with the Nizam's territory through Bagalkot.

The turn of 19th century saw the beginning of all-round development of road network throughout the State. From 1930 onwards the roads under Bombay Presidency were classified as Class I, Class II-A, II-B and Class III, depending on the importance of such roads. The Chiplun (Ratnagiri dist.)-Hyderabad (Class I Road) was passing through Bijapur district. Another Class I road originating from Sholapur was connecting Bijapur with Hubli. The most important link in the northern circle of the presidency, was Pune-Bangalore road. In the days of Commissioner Cubbon, he saw to it that Bangalore, the capital of Mysore State was connected with all district headquarters and by the time he left office (1861), the State had 2,555 kms of new roads and 309 bridges.

The road communication system in the Old Mysore State was very good in the pre-independence period. Roads were classified as State Fund Roads and District Fund Roads for the purpose of construction and maintenance. Till 1943, there was no systematic classification of roads in the country. Later according to the Nagpur Plan in 1943, the roads were classified into National Highways, State Highways, Major District Roads, Other district Roads and Village Roads. In 1951, the road length in Dakshina Kannada and Udupi was

about 2,000 km. At the time of the merger of Bellary with the Old Mysore State in 1953, the length of the roads was 1.218 kms and in 1956, the integrated state had 43,182 kms road length, of which 26,423 kms was from old Mysore and the share of Bombay-Karnataka, and Hyderabad-Karnataka was 11,260 and 2,478 kms respectively. The districts of Dakshina Kannada (including Udupi Dt.) and Kodagu had a road length of 2,109 and 912 km, respectively.

### **Development of Roads**

In 1956, the road length including that of the integrated areas in the State was 43,182 km. The road development in Bidar, Gulbarga, Bellary, Raichur and Koppal was very poor. Special attention was paid to the development of roads in these areas in the Five Year Plans. From 1956 to 1978, about 6,059 km new road length was added and 21,854 km existing roads were improved. During the same period, 16,344 km road length were asphalted. For providing accessibility to the villages, about 30,543 km. rural roads were formed and 460 bridges were constructed.

For the benefit of the rural population in the State, the Rural Communication Programme was launched in 1959-60. Its objective was to provide all-weather roads to important villages, construction of missing links and construction of cross drainages (culverts) with a linear water way of more than 20 feet on P.W.D. roads.

During the Chief Engineers' Conference, a road development programme for twenty years (1961-1981) was chalked out. This plan envisaged improvements to the existing roads or upgrading or new construction of additional roads. The Public Works Department undertook a survey in 1970-71, to ascertain the number of villages connected by all-weather roads or any type of roads. This survey revealed that out of 26,286 inhabited villages, 10,299 villages were connected by metalled and all-weather roads, 9,865 villages were connected by unmetalled roads and the remaining 6,122 villages were not connected by any road.

The national highways are very important highways which connect metropolitan cities, State capitals, ports etc. The length of the national highways in 1961 was 1,269 km and in 1981 about 1,968 km. They were under the control of the Central Government previously. Since 1971, the national highways are maintained by the State PWD, out of the Central funds. As in 1992-93, there were seven national highways traversing in the state, with a total length of 1,997 km. It was proposed to declare, another 13 roads with a length of 4,765 km as national highways. During the last decade, 30 km of the national highway No.4 has been widened from two lanes to four lanes. About 231 km length of the national highway nos. 9,13,17 and 48 were widened, from single lane to double.

The Kozhikode-Kollegal section passing through Sultan Batteri, Gundlupet, Nanjangud, Mysore, T.Narasipur, Mugur, Uttamballi, and the road between Bangalore-Dindigal via Kanakapura, Halagur, Malavalli, Sattegal, Kollegal, Yelandur, Santhemarahalli, Chamarajanagar and Punajur were declared as NH-209 and NH-212 respectively on June-July 1999 and the work is in progress. The Government of India has declared 192 kms of Bijapur-Hubli road as the 13th National Highway in the State (NH-218). Likewise, the Mysore-Bannur-Malavalli road is likely to be elevated to National Highways category very shortly. As a result, as on 2000 March, there were 13 National Highways traversing in the State totalling about 3,524 kms. The second phase of Hubli-Dharwad bypass on Build-

Operate-Transfer (BOT) basis has been completed and commissioned for traffic. Under the Asian Development Loan Assistance, a length of 25 km. of the NH-7 has been taken up for converting it into four lanes (from Bangalore to Tamilnadu border near Hosur).

The total road length in 1981 was 98,523 kms and an account of implementation of several road schemes, it went up to 1,21,266 kms in 1992. The roads which were in charge of P.W.D. increased from 32,177 km in 1956 to 64,628 km in 1981. The quality of the roads maintained by the P.W.D. was also improved. The cement concreted/asphalted road surface which stood at 3,858 kms in 1956 increased to 26,022 km in 1979 and was 36,229 during 1992. The length of cement concrete roads has decreased substantially due to its recoating with black topped surface. Unmetalled roads in the control of P.W.D. in 1956 was 2,343 km when compared to 8,935 km in 1966 and during 1992 it was 11,089 km. In addition, 11,089 km roads have been transferred from the control of P.W.D. to the Zilla Parishads (1-4-1987).

The Government has retransferred 10,000 km road length from the control of Zilla Parishads to the PWD on 18th February 1992. The aim was to improve them at the rate of 50 km per Assembly Constituency. Besides, they are being upgraded into major district roads. For the development of Gulbarga division (Gulbarga, Bellary, Bidar, Raichur and Koppal Districts), roads and bridges are being constructed. During 1990-91 and 1991-92, a sum of Rs. 61.60 lakhs were spent on roads and bridges. In 1990, a scheme for the improvement of roads under Rupees Twelve Lakhs Programme was launched. Under this programme, rupees twelve lakhs was spent on road works in each Assembly constituency. An amount of Rs. 867.08 lakhs was spent in 1990-91 and in 1991-92 Rs. 1,694.39 Lakhs.

The total road length in the state by 1998 was 1,42,687 kms comprising 2,335 kms National Highways, 11,037 kms State Highways, 28,301 kms Major Dt. roads, 1,644 kms Other Dt. roads, 42,791 kms Village Roads, 31,583 kms TDB roads, 9,417 kms Irrigation Dept. roads, 2,582 kms Forest Dept. roads excluding 8,366 kms of Municipality roads and 4,665 kms of Grampanchayati roads. Among them, 97,392 kms were surfaced, and others were unsurfaced roads. The average road length per one lakh population is 288 kms and the average road length per sq km is 64 kms. These are above the national average of 238.8 kms and 61.3 kms respectively. During the 8th plan (1992-97), a sum of Rs. 42,717.24 lakhs were spent on laying and improving of 8,537 kms, asphaltting 3,321 kms of roads and building 1,323 major and minor bridges within the state. During the 9th plan, a sum of Rs. 953 crores has been provided for construction, improvement and maintenance of roads and bridges in the state. In the year 2000, 72 roads and 17 bridges were completed with NABARD assistance. The government has signed with the Kalyani groups of India for the construction of Bangalore-Mysore Express Highway to be executed by the Kalyani Group of Companies on its own investment, to be maintained for 30 years, handing it over in motorable condition to the State Government after recouping the expenditure incurred along with profit by way of toll fixed in consent with the State Government at regular intervals.

For providing accessibility to villages, schemes like Minimum Needs Programme and Halli Heddari were launched. Till the end of 1991-92, the villages linked with all-weather roads were 12,649. It constitutes 47% of the total inhabited villages in the State numbering 27,028. As many as 6,747 villages were provided with fair weather roads and 7,433 with Katcha roads which accounted for 25% and 27% respectively. The rest of the 199 villages were without approach roads. Minimum Needs Programme was started during 1974-75. A sum of Rs. 53.77 crores were spent for connecting 1,398 villages with all-weather approach

roads from 1974-75 to 1991-92. The Halli Heddari scheme was started in 1984-85. Under this scheme, till the end of 1991-92, 167 villages having a population of less than 1000 were provided with all-weather roads. The expenditure incurred was Rs. 827.26 lakhs. The scheme of approach roads to colonies of the Scheduled Castes was launched in 1983-84. A sum of Rs. 37.13 crores were spent between 1983-84 to 1991-92, for constructing about 2,099 km. road length. Integrated Comprehensive Rural Communication Programme was started in 1972-73. An amount of Rs. 9.63 crore was spent in the Sixth Plan period, for constructing about 1,803 km length roads. Between 1985-86 to 1991-92, an amount of Rs. 1.60 crore was incurred for constructing 77 km of roads and some other Master Plan Rural Roads (1st Phase C.D. Works). Construction of roads under people's participation was launched in 1986-87, to give high priority to the rural road works which have local people's participation. The Zilla Parishads also executing this programme. During 1987-88 to 1991-92 about 113 km. village limit roads were constructed/improved and an amount of Rs. 161.53 lakhs were spent. By 2000 among the 27,066 inhabited villages in the state, 15,800 villages have all-weather roads, 8,026 villages have fair weather roads, and 3137 villages have katcha roads and the remaining 103 villages were not connected by any roads as such.

The Sethubandhana Programme was commenced with the aim of constructing cross drainages on non-PWD roads in the rural areas. In 1985-86 at a cost of Rs. 90.07 lakhs, 184 CD Works were completed. With an expenditure of Rs. 154.09 lakhs, 258 works were completed during 1991-92. A scheme was started to provide cross-drainage having a linear water way of less than six metres. Since 1985-86 to 1991-92, as many as 346 cross-drainage works were completed.

In 1956, the number of bridges having 30.40 mts. linear water ways were 304. The pace of the bridge construction was speeded up and in 1991-92, there were 1,204 bridges in the state. Compared to 33,066 minor bridges in 1978, the minor bridges which included culverts also on all the categories of roads, were 97,473 at the end of 31-3-1992. By 1998 there were 97,781 culverts, 13,990 minor bridges (6-60 mts) and 469 major bridges (60 mts and above) built across all category of roads.

The Government has approved to upgrade 10,000 kms of rural roads to that of major district roads and since 1995, road development in each constituency has been started as a special scheme. Since 1996, road development in sugar factory areas has also been started. In 1995, world bank aid being sought for state highway improvement and NABARD loan is sought to improve rural communications in the State. The government has constituted "Karnataka Road Development Corporation" in June 99, with its registered office at Bangalore with an authorised initial share capital of Rs. 200 crores and aiming at improving roads, bridges etc., with developmental programmes. It has taken 5 roads for upgradation with the financial aid of Rs. 750 crores from HUDCO. The Flyover built in Bangalore city linking Sirsi Circle with Corporation via City Market, the longest of its kind in Asia has reduced the traffic pressure near City Market considerably. Besides this, few more Flyovers are under construction.

**Road transport Department** : Till 1989, called as Motor Vehicle Department, started in 1957 is entrusted with the work of registration and tax collection of motor vehicles, issuing of permits, driver's and conductor's licences etc., to the public. At the time of integration of Karnataka, there were 25,976 registered motor vehicles. Their total number stood at 17,18,494 in 1992-93. Among the vehicles, the two wheelers were 12,30,200 in 1992-93. The number of motor cars in 1992-93 was 1,59,888. Besides Commercial Vehicles,

those on the farm front too, received a boost with the increase in the number of tractors from 20,561 in 1956-57 to 52,592 in 1992-93. The total number of motor vehicles in the state as on 31-3-1994 was 18,75,687 which included 1,67,207 motor cars, 20,237 buses (including 16,190 K.S.R.T.C. buses) and 81,869 goods carriers. As on December 1999, there were 32,60,663 registered motor vehicles in the state. They include 23,38,021 two wheelers, 3,00,687 motor cars, 38,990 jeeps, 16,711 Cabs, 1,16,487 goods vehicles, 27,743 Omni Buses, 1,40,238 autorishaws, 20,876 K.S.R.T.C. Buses, 6,302 private buses, 98,406 tractors, 99,015 trailers, 574 contract carriers, besides 56,713 other vehicles with an overall increase of 9.17% during 98-99. By March 2000, there were 33,51,076 motor vehicles registered in the state with Bangalore division having highest number (17,84,812) of registered motor vehicles in the state. The Transport Department is one of the major revenue earning departments in Karnataka and the following table gives the districtwise motor vehicles as on Dec.1999.

Sl.No.	District	Regd. Motor Vehicles
1.	Bangalore (Urban)	11,69,461
2.	Bangalore (Rural)	1,35,982
3.	Tumkur	98,561
4.	Kolar	89,391
5.	Mysore	2,20,281
6.	Chamarajanagar	19,005
7.	Mandya	51,968
8.	Coorg	41,765
9.	Hassan	66,089
10.	Shimoga	1,07,743
11.	Chitradurga	42,881
12.	Davanagere	94,514
13.	Chikmagalur	53,327
14.	Dakshina Kannada	1,46,709
15.	Udupi	58,531
16.	Belgaum	2,20,781
17.	Dharwad	1,30,528
18.	Gadag	32,916
19.	Haveri	36,739
20.	Bijapur	49,430
21.	Bagalkot	51,383
22.	Uttara Kannada	69,871
23.	Gulbarga	80,629
24.	Bellary	89,208
25.	Raichur	40,057
26.	Koppal	25,594
27.	Bidar	37,319
Total		32,60,663

The Transport Commissioner is the Chairman of the Quasi-Judicial Karnataka State Transport Authority, in accordance with the section 68 of the Motor Vehicles Act, 1988. This Authority has two other official members also and it grants permits to tourist or passenger vehicles or goods carriages as per Inter State Agreements. The Regional Transport Authorities under this State office grants permit to the transport vehicles or renew or cancel them.

This department is authorised to issue both driver's and conductor's licences and by the end of December 1999, 28,12,183 driver's and 3,84,679 conductor's licences were issued. Likewise, 2,40,285 Blue Plastic Cards for two wheelers, 40,789 Green Plastic Cards to LMV's 1,53,219 Red Plastic Cards to both two wheelers and LMV's and 5,667 Khaki Plastic Cards to HTV's were issued to various category of drivers by the department since 1985.

As per the Central Govt. Motor Vehicle Act of 1989, to check air pollution Transport Department has made Smoke Emission Controlled Test compulsory in the State since 1993 and as a result, there are 218 Smoke Emission Checking Centres in the State of which 115 are in Bangalore. Since January 1998, the government has stopped issuing auto permits in Bangalore city. Autorishaw drivers' accident relief fund has been created to provide a relief of Rs. 50,000 to the family of the auto drivers who die or permanently become disabled due to accidents. The department has earned a revenue of Rs 320 crores at the end of December 1999. Computerisation of the department is under progress. Radio Taxi facilities being introduced in Bangalore city to provide better transport facilities to the publics and at present 126 radio taxis are serving on the roads of Bangalore. It is proposed to provide the same facility even to the other important towns like Mysore, Hubli, Dharwad and Belgaum.

**Public Conveyance:** Prior to 1948, public conveyance were solely in the hands of private entrepreneurs. In earlier times, bullock, buffalo, ass and horses were the main beasts of burden. Kavadis and Bullock Carts were used to carry goods. Bullock Carts and Horse Carriages transported people. In 1911, Public Traffic Control act was implemented in Mysore and in 1920, there were already private buses serving the public. Around 1935, their number was 100. The Mysore Traffic Board started in 1936 in old Mysore area controlled the public conveyance.

After independence, when nationalisation of roads was initiated in 1948, Mysore State Road Transport Department came into existence on 12th September 1948 with 20 buses. By 1949, it had 120 buses covering 81 schedules and 15,000 kms road mileage. The Bombay State nationalised Road Transport in 1947 and it was extended to Belgaum Division in 1949 with the name "State Transport" (ST). At the time of unification in 1956, it received 825 buses and 778 scheduled routes from Bombay, Hyderabad and Old Mysore states. By 1957 it ranked 4th at national level with 1100 buses under its control. As per the Central Road Transport Corporation Act of 1950, this department became a Corporation in 1961 and after 1973 came to be called as Karnataka State Road Transport Corporation (KSRTC). By 1982, it ranked fifth at national level with five regional offices at Bangalore (2), Mysore, Belgaum and Gulbarga, having control over 12 divisions and 68 depots. It had 5,700 passenger buses covering 3,855 scheduled routes of 11.20 lakh kms per day providing service to 20.9 lakh passengers.

In November 1985, Gulbarga, Bidar, Bijapur, Bellary, Hassan and Raichur district's nationalisation process were completed and partial nationalisation being done in the districts of Kolar, Bangalore (Rural and Urban), Mysore and Chikmagalur. By 1991, it had 6 regional offices, 14 divisions and 91 depots with 7,602 scheduled routes and 8,824 buses, with an annual income of 404.82 crores. In 1997, the govt. divided it into KSRTC (Old Mysore-Hyderabad area), Bangalore Metropolitan Transport Corporation (Bangalore City) and North West Karnataka Road Transport Corporation covering Hubli, Gadag, UK, Belgaum, Bijapur and Bagalkot divisions. As on March 1997, the KSRTC had 19 divisions, 109 depots

with 8,493 schedules, 13,273 routes of 9.49 lakh route kms and 31.01 lakhs of daily km service to the public with a daily revenue of Rs. 350.38 lakhs. The scheduled route numbers rose to 10497 by March 2000.

Bangalore Metropolitan Transport Corporation (BMTC) separated from KSRTC on 15-8-1997 is entrusted with the work of serving the public of Bangalore Metropolitan City with sincerity and punctuality. Prior to its separation it was looked after by Bangalore City Transport (North and South divisions) through 13 depots with 1839 schedules, 1991 buses and a central workshop. Now the BMTC covers Bangalore city with 30 kms radius and by March 1998 it had 2088 buses and 1934 schedules (740 city, 925 sub-urban and 269 Pushpak schedules) with 4,42,953 scheduled route kms to its credit. At present it is operating 2,285 schedules with a fleet strength of 2412 buses through 17 depots, 3 major stations, 8 sub-bus stations and one central workshop. Its total revenue for the year 1999-2000 was Rs. 2,04,25.84 lakhs and is running under profit. Recently KSRTC has even inaugurated the newly formed North-East Karnataka Road Transport Corporation, a separate unit for Hyderabad-Karnataka area with its head quarters at Gulbarga.

### **Railways**

The first railway line in the old Mysore Area was from Bangalore to Madras, laid by the Madras Railway Company and was opened for traffic in August 1864. In 1877-78, construction work of another important section, Bangalore-Mysore metre gauge line of about 138 km long was taken up and completed in stages and commissioned in February 1882. The metre gauge section between Bangalore to Tumkur was started in October 1882 and about 69 km line was opened for traffic in 1884. Later, it extended to Gubbi (18 km) in December 1884. The Southern Mahratta Railway, undertook the construction work of Harihara-Birur and Birur-Gubbi sections and both these sections were opened for traffic in 1889. As a result, direct link was established between Pune-Bangalore *via* Harihara. The Birur -Shimoga-Bidare line having a distance of about 64 km. was constructed by the State itself in 1899. This line linked Shimoga with the Bangalore-Harihara sections. For speedy execution of the works, State Railway Construction Department was set up in June 1912. The Mysore-Arasikere metre gauge line of 165 kms taken for construction in 1916 was completed and commissioned in 1918. Due to the keen interest taken by the State in developing the railway network, the total length of the railway line rose from 657 km in 1911-12 to 913 km in 1923-24. Later Birur-Shimoga line was extended in stages upto Talguppa (1940), a distance of about 161 km.

In Gulbarga area, the Raichur-Sholapur section was laid between 1861-1871, to connect Bombay and Madras Presidencies. Another broad gauge line, passing from Wadi-Secunderbad *via* Chitapur and Sedam (43 km in Gulbarga Dt.) was commissioned for traffic in 1874 and a vital link was established between Hyderabad, Madras and Bombay. The broad gauge line of the Vikarabad-Parli-Bajnath section, runs through Bidar district for a distance of 78.73 km started operating since 1932. In 1885, the metre gauge track between Hubli and Hospet was laid to serve as a link between the two coasts.

Dakshina Kannada had only 12.87 km railway track leading towards Madras before 1956. When the Hassan-Mangalore railway line opened for traffic in 1979, the length of the

railway line in the district went up. The Pune-Harihara line traversing through Belgaum and Dharwad districts was laid in 1882 and completed during 1887. Goa was linked up with Londa in Belgaum district. Before 1951, the present Karnataka State was served by the then Madras and Southern Maratha Railway, the South Indian Railway, Mysore State Railway, Nizam's State Railway and Great Indian Peninsular Railway systems. In 1951, the Railways were taken over by the Central Government and Railway Zones were formed. The Southern Railway was formed on 14-4-1951 and in October 1966 South-Central Zone, with its headquarters at Secunderabad was created.

At the time of Unification of the state in 1956, the length of Railway line was 2,595 km. Out of which broad gauge was 352 km, metre gauge 2,080 and narrow-gauge 163 km. The Indian Railways, have undertaken modernisation and many development programmes for the expansion of the railway network in the country. Under the uni-gauge programme 178 km. metre gauge track between Dharmavaram-Bangalore was converted into Broadgauge and opened for traffic in January 1985. Similarly the Mysore-Bangalore broadgauge line of 138.25 kms was opened for public traffic on 16th April 1993. Workshop at Ashokapuram (Mysore) is being modified to handle broad gauge rolling stock. Some of the railway lines converted into broad gauge and opened for traffic are Bangalore City-Yeshwanthpur-Yelahanka (17.50 km), Bellary-Rayadurga (54 km), Bangalore-Tumkur-Arasikere-Shimoga (in stages completed) and Rayadurga-Chitradurga-Chikjajur. The track doubling work between Whitefield and Kuppam is under progress (81.31 km). Electrification work of the Bangalore City-Jolarpet section was completed in 1992 and the first Electric Train was operated on 19th May 1992.

Broadgauging of 67.65 kms between Hotgi and Bijapur is being completed and since May 1998, rails are on operation. The Bijapur-Gadag gauge conversion likely to be completed very shortly. The Mysore-Arasikere line conversion is also completed and put to traffic since 1998. Hassan-Mangalore gauge conversion is under progress.

The ambitious Konkan Railway Project for connecting Mangalore with Roha was opened for freight traffic in 1996. The Mangalore-Udupi line was started first and was extended to Kundapur in 1995. The 760 km long line was opened for passenger traffic in December 1996. As a result, the distance between Mangalore and Bombay was reduced by 1,200 km and Mangalore-Delhi by 800 km. In 1998 (31-3-98) total rail length was 3270 of which Bg is 2706 & Mg 564. There are 392 railway stations in the state. As a result, today, except Kodagu, all other Dts., in the state have the railway line passing through their jurisdictions and the railways are planning to implement the long-standing demand for Mysore-Madikeri rail line. Hubli-Ankola line is also being planned.

The Giant Wheel and Axle Plant was started at Yelahanka in 1984. This plant is manufacturing wheels and axles for the railway carriages with latest design and technology. There is a Railway Museum at Mysore where several unique exhibits are displayed. The Railway workshop functioning at Hubli, is looking after rolling stock in respect of metre gauge. With the metre-gauge engine being rolled out from the workshop in 1994, this section is now closed.



Since 1859, large number of railway lines were opened for traffic in the State and their detailed list is as follows:

No.	Railway line	Kms	Beginning Year
1	Bangalore-Madras	88	1864
2	Bombay-Madras(Sholapur-Gulbarga-Raichur-Guntkal)	220	1861-71
3	Guntkal-Bellary	43	1871
4	Wadi-Chitapur-Sedam-Secunderabad	43	1874
5	Bangalore-Mysore	138	1881-82
6	Bangalore-Tumkur-Gubbi	87	1884
7	Bellary-Hospet	59	1884
8	Hubli-Gadag-Hospet	144	1885
9	Gadag-Bijapur-Hotgi-Sholapur	249	1885
10	Londa-Belgaum-Pune-Harihar	115	1887
11	Harihar-Hubli	129	1887
12	Londa-Marmgoa-Vasco	50	1888
13	Harihar-Birur-Gubbi	229	1889
14	Yeshwanthpur-Hindupur (upto Border)	83	1890
15	Mysore-Nanjangud (upto Sujatha Mills)	24	1891
16	Bangarpet-Marikuppam	16	1894
17	Sujatha Mills-Nanjangud	0.76	1899
18	Birur-Shimoga-Bidare	61.15	1899
19	Bellary-Rayadurga	53.67	1905
20	Hospet-Kottur	69.46	1905
21	Gunda Road Jn-Swamihalli	21	1906-07
22	Madras-Mangalore (upto Border)	12.87	1907
23	Bowringpet-Kolar	18	1913
24	Chikballapur-Yelahanka	-	1915
25	Chikballapur-Kolar	-	1916
26	Yelahanka-Yeshwanthpur-Bangalore	25	1918
27	Mysore-Arasikere	165	1918
28	Dandeli-Alnavar	31.7	1919
29	Chikkajajur-Chitradurga	21	1921
30	Nanjangud-Chamarajanagar	35	1926
31	Shimoga-Shimoga Bidare	06	1929
32	Vikarabad-Parli-Baijanath (Bidar, Khanapur, Kamalapur)	78.32	1932
33	Shimoga-Talaguppa	93	1940
34	Guntkal-Hospet (Separate Line)	102	1966
35	Hassan-Mangalore	189	1979
36	Mangalore-Mangalore New port	-	1983
37	Mangalore-Roha (Konkan Express)	-	1996

**Air Transport :**

The first aeroplane flight in India was introduced in January 1911. The Tata and Sons Ltd., flew its aircraft for the first time in Karnataka in October 1932. This flight was operated between Karachi and Madras with stops at Ahmedabad, Bombay and Bellary. Later, Deccan Airways of the Hyderabad Government, operated daily one flight from Hyderabad to Bangalore and back in 1946. On 1st August, 1953, Airlines in the country were nationalised and Government owned Indian Airlines started connecting Bangalore with various other cities in the country. The 'openskies' policy of the Centre has ended the monopoly of plying their aircraft between Bangalore, Bombay, Delhi, Hyderabad etc. The private companies are Jet Airways, East-West Airlines, Damania Airways, and Modi Luft. Apart from Bangalore, the cities of Belgaum, Mangalore and Hubli are also on the air map of the country.

In the Indian Airlines network, Bangalore Airport ranks fifth in respect of revenue earnings. During 1992-93, on an average there were about 60,000 incoming passengers and 60,000 outgoing passengers at Bangalore Airport per month and the incoming and outgoing cargo handled during 1992-93 was 5,104 and 6,711 M.Tonnes respectively. During 1991-92, the incoming and outgoing cargo handled by the Mangalore Airport was 99 and 57 M. tonnes respectively. Direct flight to Perth (Australia) and Singapore have begun from Bangalore from 1995. There is a proposal to construct an International Airport near Bangalore at Devanahalli. The State run Flying Training school was started in 1948, at Bangalore to impart training to the youth in flying. This school is also undertaking joy flights, charter flights and also providing flying facilities to scientists and engineers of the defence. In 1991-92, of the nine candidates undergoing the training for commercial pilots licence, three of them have passed the course. At the same period 98 students were undergoing training for the private pilot's course.

**Bangalore Airport**, constructed in an area of 865 acres of land which belongs to HAL and the Airports Authority of India maintains a civil enclave on 20 acres comprised of domestic passenger terminal building suitable to maintain 700 departing passengers and the integrated international terminal building inaugurated in January 99, suitable to handle 700 domestic arrivals and 600 International passengers at a time, fully air conditioned built at an estimated cost of Rs. 21.83 crores. It is equipped with five escalators, four passenger elevators and staircase for transferring passengers from ground floor to 1st floor and vice-versa.

**Passport office** : A separate office for the State was established at Bangalore on 12th June 1978, on the bifurcation of Regional Passport Office at Chennai. It is now located in No. 1/A, Brunton Road, (across M.G. Road), Bangalore. It is providing passport facilities to the people in Karnataka. The number of passports issued from 1978 is as follows:

1978 - 17,146; 1979-32,367; 1980-33,507; 1983-68,949; 1985- 76,119; 1987-41,860; 1989-67,052; 1991-58,259 and 1992-1,23,150. By the end of 2000, out of the 1,31,769 fresh applications received, 1,28,943 were disposed of by issuing passports. Generally it takes 30 to 40 days to issue fresh passports. Under 'Tatkal' Scheme, Passports are issued quickly by charging addition fees. Renewal of old ones, issuing of duplicate passport in case of lost and damaged passports and Emigration services are also extended to the public. Tele-Enquiry, Special counters etc., are opened to assist the public. 'KIOSK' - Touch Screen System has been installed to make know the position of passport applications. On-Line Registration services were started to help the working personnel living in different districts has been appreciated by the public. It has also launched a web-site of its own, which help the public

to know the position of their applications and objections if any. It has its passport application collection centres at Mangalore started in 1996, and at Gulbarga in February 2000. The Speed Post Passport services has also been launched at selected post offices in March 2001.

### Water Transport

Karnataka, a maritime state with a coastal line of 287 kms covering Uttara Kannada, Dakshina Kannada and Udupi dts., of Coastal Karnataka. Water Transport which include Inland Waterways and Ocean Transport are crucial for the economic growth of the State, as it is cheap and also indispensable at places where there are no bridges. In earlier times rivers and seasonal streams were crossed by the country boats, rafts, basket boats and ferries. In recent years mechanised boats and launches are also being used. The district of Uttara Kannada, Udupi and Dakshina Kannada are more favourable for Water Transport. Chronicles of the overseas travellers, mention of the foreign boats going up to the upstreams of Barakur, Basrur, Gersoppe and Kadra. Navigation is possible in the water ways of the State only for short distances, particularly in some portions of the West flowing rivers, their estuaries and backwaters. In Uttara Kannada district, some portions of the Gangavali, the Aghanashini, the Kali and the Sharavathi are navigable. Navigable portions are found in the Halady, the Kubja, the Chakra and the Kollur rivers in Udupi dt. and the Udyavar, Netravathi etc., in Dakshina Kannada district.

With a view to have proper control and supervision over navigation and ferry services, Inland Waterways Branch was created in 1972 and attached to the Ports Directorate. Many ferry services are directly run by the Inland Waterways. In 1981-82, there were 673 ferries in the State to cater to the needs of the rural population. Consequent on the construction of more roads and bridges in rural areas, the number of ferries, have come down to 477 in 1992. During VIII Plan period, an amount of Rs 60 lakhs was spent for the development of ferries. Even then by 2000 AD, the number of ferries were 378 in the state. Out of them 26 were maintained by the department, while 42 have been given to private individuals on auction, and a sum of Rs. 2,73,110 was obtained as revenue out of it.

#### Statistics of men and materials transported by the departmental ferries

	1981-82	1991-92	1999-2000
Passengers	24,30,349	6,81,411	11,41,954
Scooters/Motor Cycles	42,138	1,795	8,217
Rickshaws	3,687	-	46
Cars	14,219	-	2,248
Vans	8,351	619	940
Trucks	10,371	349	67
Buses	2,670	3,000	7,571
Carts	736	325	47
Jeeps	53	389	2,428
Cycles	3,36,179	34,360	8,827
Animals	3,079	1,655	2,356
Goods (in qtls)	4,33,198	9,935	8,404
Revenue collected	Rs. 17,25,765	Rs. 5,92,039	Rs. 17,60,984
Expenditure	Rs. 11,72,401	Rs. 20,26,138	Rs. 69,44,519

Source: Karnataka Ports & IWT Dept. Karwar.

## Ocean Transport

There were no ports in the Old Mysore State. Attempts were made to acquire and develop Bhatkal Port when Sir M. Visweshvaraya was the Diwan of Mysore State. Finally, this proposal was shelved in 1923. After the integration of the States, Karnataka came to have 18 ports, in addition to Karwar and Mangalore. Ports are located in the coastal districts of Uttara Kannada, Udupi and Dakshina Kannada. They are Bhatkal, Shirali, Murdeshwar, Manki, Honavar, Kumta, Tadri, Ankola, Belikeri, Chendiya, Binaga, Karwar and Majali in Uttara Kannada. Mangalore (Old Port), New Mangalore Port and Malpe in Dakshina Kannada. Hangarakatta, Kundapur and Baindur in Udupi dt. These ports could not get proper attention earlier due to the presence of two major ports Bombay and Cochin on the west coast and also Goa, though under the Portuguese.

In 1957, Mysore Port Department was formed and 18 lakhs were sanctioned to provide minimum Port facilities. The Karwar, Belikeri and Honavar ports commenced exporting iron ore between 1957-1960. During the Third Plan period, the outlay was Rs. 280.3 lakhs. The Centre accorded sanction for the development of New Mangalore Port at Panambur into an all-weather port. Also included in the Third Plan, was the scheme of developing Karwar into an all-weather port. The Fourth Plan outlay was Rs. 128 lakhs. The minor ports saw increase in the traffic of general cargo and fisheries and cargo handling capacity of the ports reached 14.43 lakh tonnes. To cope up with the increase in the cargo movement, it was proposed to improve port facilities, during Fifth Plan. The total investment proposed for Fifth Plan was Rs. 850 lakhs. The proposed expenditure during the same period, by way of Central grant for the development of Karwar port was Rs. 257.24 lakhs. The strategy during the subsequent Annual Plans was to complete on-going schemes, construction of wharves, jetties and other facilities, purchasing dredging machinery, installation of Navigational equipments etc. The traffic in nine ports exceeded 11 lakh tonnes annually.

Based on the traffic volume, Karwar port was taken up for development, as an all-weather port, at a cost of Rs. 8.5 crores under the State sector. Other ports selected for development due to more traffic potential were Belikeri, Tadri, Honavar, Bhatkal, Kundapur, Hangarakatta, old port of Mangalore and Malpe. A sum of Rs. 1,750 lakhs was spent for the development of ports to handle more cargo traffic during VIII Plan period. The government has sanctioned an outlay of Rs 40 crores for development of ports during the IX Plan period (1997-2002) in Karnataka. As against the allotted amount of Rs. 350 lakhs for the year 1999-2000, only Rs 276.12 lakhs were spent on various activities. A brief account of each port is given below.

*Karwar Port:* Karwar port has been considered as one of the finest natural ports in the world. It was predicted that the cargo movement through this port would be around seven million tonnes during 1995-96. The main export items are iron/manganese ore, granite blocks, agricultural, forest and marine products. Now it has also been declared as customs port and as an all-weather port. The total cargo handled during 1999-2000 is 4,59,400 metric tonnes.

*Belikeri Port:* The Port handled exports of about 60,895 metric tonnes of iron/manganese ore, during 92-93. A sum of 90 lakhs was allotted in the Eighth Plan for the development of the port. It is located about 27 km to the South of Karwar.

*Tadri Port:* The Port lies at the mouth of Aghanashini, about 54 km north of Honavar. About 2,790 tonnes of silica sand was exported through this port during 1992-93. It reduced to only 610 metric tonnes during 1999-2000.

*Kundapur Port:* It is located about 96 km to the north of Mangalore, at the confluence of Gangolli river. There was considerable movement of traffic through this port, prior to the development of Karwar port. About 5,538 metric tonnes of goods were exported from this port in 1992-93. About 46,445 metric tonnes of cargo was handled during 1999-2000.

*Bhatkal Port:* In olden times Bhatkal was an important trading centre for foreign trade. This natural port, was a major outlet on the West Coast in Vijayanagara times. Bhatkal is situated about 40 kms to the south of Honavar and at the mouth of the Sharabi river. Commercial traffic through this port is very negligible.

*Honavar:* It is situated at the mouth of the Sharavati river and second important port after Karwar. The port has been developed during the successive Five Year Plans. Total exports handled by the port was 1,609 M.tonnes, during 1992-93.

*Malpe:* The Malpe port is located at the confluence of Udyavara river and lies 64 km to the north of Mangalore and five km to the west of Udupi . About 17,700 tonnes of silica sand exports were handled by this port in 1992-93. In 1999-2000, 17,105 metric tonnes of silica sand was exported from this port.

*Hangarakatta:* The port lies at the mouth of the Sitanadi and at a distance of 22 km south of Kundapur. During 1992-93, only 80 metric tonnes of cargo was exported from this port.

*Mangalore (old) port :* No major development took place in the development of Mangalore old port in the previous plans. The old port is located about eight km South of New Mangalore Port and controlled by the State Government. By taking into account of the Shipping needs, it was decided to develop the port at an estimated cost of about 12.5 crores, in the VII Plan. Construction of wharf and dredging of inner channel were completed. Total imports and exports routed through this port in 92-93, was 58,374 metric tonnes. This port also provided sea transportation to the Lakshadweep islands.

*New Mangalore Port:* The New Mangalore Port has been developed into an all-weather major port, by the Government of India. The port was declared in 1974, as ninth major port in the country and was developed over the years. During Eighth Plan, a sum of Rs. 60 crores was allotted by the Centre. Apart from it, some more facilities are expected to be created to handle crude oil, coal, LPG etc., and the user agencies have also agreed to meet the expenditure.

Besides steps are being taken for the improvement of old Mangalore port. Government of India have accorded sanction for handling petroleum products through Karwar port. Container service has been introduced there to serve Northern Karnataka. The Karwar, Belikeri, Tadri, Honnavar, Bhatkal, Hangarakatta, New and old Mangalore ports together have handled 3.12 lakh metric tonnes exports and 2.27 lakhs metric tonnes of imports for the year 1999-2000.

### Postal Services

As early as 17th century, old Mysore state had local postal system called 'Anche', the word popularised by prince Chikkadevaraya. 'Anche', being the Kannada form of 'Hamsa', the messenger used by Nala and Damayanti of epic fame. Under Odeyars, it was a part of the intelligence department and was headed by the Anche Bakshi. Imperial post offices working under the British at Srirangapatna, Hunsur and Tumkur were included in the Anche Dept. Of the two imperial postal lines functioning, the Bangalore to Bombay route was passing through Chitradurga and Harihara; the other from Bangalore to Mangalore via Mysore. There were imperial post offices at Bangalore, Mysore, Harihara and Pandavapura (French Rocks). The British had opened their post offices at Bangalore Cantonment and Mangalore during the first decade of the nineteenth century and other centres of Bombay-Karnataka during the second and third decades of the nineteenth century. Dharwad had a post office in 1820 and Hubli in 1833. The number of post offices rose from 180 (1882) to 412 (1886) in the Mysore Kingdom and Quarter Anna post cards were introduced in old Mysore. The Mysore Anche system until its merger with the imperial postal department in 1889 was rendering services at a very cheap rate.

For some time, in the beginning, the post was carried by the runners and delivered to the destinations. There was a cartline service between Madras and Bangalore. After the completion of Railway line between Bangalore and Madras in 1864, mail was transported in trains. With the introduction of motor vehicles during the 20th century, mail was carried by the motor buses. The Bangalore General Post Office (GPO) was opened in 1800 and was one of the most important post offices in the Madras circle after Madras GPO. In 1854, Bangalore was a Saddar or Head office and Subordinate offices attached to it were Pandavapura (French Rocks), Hunsur, Harihara, Madikeri, Mysore, Shimoga, Srirangapatna and Tumkur. In 1870, there were receiving houses at Bangalore Cantonment and Bangalore city. Kollegal was transferred from Coimbatore Headoffice to Bangalore Headoffice in 1889. In 1891, Money Order services were transferred from State Treasury to post offices.

In 1921-22, the Director of Industries and Commerce was appointed liason officer, between the State and the British Post and Telegraph Department. There were four headoffices, 109 suboffices and 376 branch offices in the Princely Mysore State during 1923-24.

The old post offices in Kodagu district were Virajpet (1864), Madikeri (1870) and Ammathi (1871). Post was directly transported from Mysore Railway Station to Madikeri on Horse carts in 1894. District postal department was under the control of PMG Madras. The postal division of Dakshina Kannada included the entire district and a part of the present Kerala. Bellary dt in the Madras presidency had a postal division.

In Hyderabad-Karnataka, the Nizam's Govt. had a postal department of its own and the Govt. service mail was carried and delivered by the orderlies or sawars. In 1869 the first postage stamp of Hyderabad was introduced and postal insurance scheme in 1907. There was a British Indian post office at Humnabad. The postal dept. of Hyderabad was merged with the central postal system on 1.4.1950. The Hyderabad Karnataka was under the Gulbarga postal division from 1959-60. The Bijapur and Belgaum districts were under the southern Maratha postal division in 1884. Headoffices were functioning at Bijapur, Kaladgi and Belgaum. There were 30 post offices at Kumta and Karwar in 1883. Besides there were 17 sub-postoffices and 11 village postoffices also were working during the same period. In

Belgaum district 40 post offices and one telegraph office at Belgaum were functioning during 1884. From Bombay to Karwar, posts were carried by steamers once a week. In 1803 a runner route was opened between Bombay to Madras via Belgaum, Dharwad, Harihara and Bangalore. About 230 runners were employed for this purpose. Another runner route was passing from Malabar to Bombay through Honavar and Dharwad. Postal bags were exchanged at Dharwad, since it was an important centre in the postal system.

With the formation of Karnataka Post and Telegraph Circle on 1.4.1960, Gulbarga Division (Hyderabad circle); Dharwad and Belgaum Divisions (Bombay circle); Bangalore, Mysore, Dakshina Kannada and Bellary Divisions (Madras Circle) were transferred to the Karnataka Postal Circle. One Railway Mail Service(RMS) Division at Bangalore (Q division) was also transferred from Madras circle. Under the control of this division, there were six RMS sorting offices in running trains. There is a phenomenal increase in the postal activities after the formation of Karnataka Circle. As on 1.4.1960, there were 3,966 post offices in the state and on an average, one post office was there for every 48.38 sq.kms and to a population of 5,934. The corresponding statistics as on 31.3.1992 was 9,707 post offices on an average of one for every 19.80 sq.kms and for a population of 4,680. By March 1999, there were 9,852 post offices working in the state. In March 2000, the Karnataka Postal Circle office had control over the three regions of Bangalore, South Karnataka and North Karnataka with their head quarters at Bangalore for the first two and Dharwad for the last one. There were altogether 9,873 post offices comprising 70 H.O's, 1785 S.P.O's, 296 EDSO's and 7,722 EDBO's in the state. During the year 1999-2000, 1,23,34,011 registered articles were booked in the state.

On 1.7.1965 the Quick Mail Service (QMS) was started between Bangalore and Delhi and later it was extended to the district headquarters and other centres. Three Speed Post centres were located at Bangalore, Mysore and Mangalore. In Bangalore alone, there were 33 speed post booking centres apart from six in Mangalore and three in Mysore. point to point Speed Post facility is available in many cities. There are at present eight speed post centres on National network and 28 speed post centres at state level, with a revenue earning of Rs. 12,42,11,984 from speed post service. The number of letter boxes which stood at 8,557 in 1960, rose to 27,348 in 1992, an almost 319% increase over the last few decades. The number of letter boxes in use by March 2000 were 30,367 comprised of 8,105 boxes at urban places and 22,262 boxes in rural areas. There were 8,060 rented post boxes, 401 postbags, 177 post boxes cum bags earning a total revenue of Rs 13,05,701 from them. There are also seven night post offices working at Bangalore (2) Mysore, Davanagere, Hampanakatta (Mangalore), Belgaum and Hubli respectively. Two Philatelic Bureaux in the state are at Bangalore GPO and Mangalore H.O. At present, 15 philatelic counters are working in the state. Now all H.O.'s have been authorised to open philatelic counters. The mail is carried over a route length of 11,443 kms by rail, 1,00,459 kms by road, 12,195 kms by runners and 32,334 kms by other modes in the state. The Postal Training Centre at Mysore is imparting training to the newly recruited postal assistants, sorters, instructors and others. The total revenue earned from all sources by the department during the year was Rs. 135.12 crores as against the working expenditure of 218.44 crores. As a result of liberalisation, private agencies like Courier, VRL, Professionals, DTDC, The Franch Express and Eagle Fly Fax are also providing effective postal services with accuracy and punctuality.

**Telegraph:** Construction of telegraph lines were started around 1853 and by 1856 about 537 km telegraph lines were laid in princely Mysore. Madikeri was an important centre in the coastal telegraphic division of Malabar in 1869-90. The telegraph line from Mysore to Cannanore passed via Madikeri. There was a branch line to Mangalore in 1865. Mangalore had one central telegraph office. The two telegraph offices working in the state in 1870-71, were at Mysore and Bangalore. British had also connected their district headquarters like Bangalore cantonment, Bellary, Belgaum and Dharwad by telegraph lines. By 2000, there were 4,032 combined telegraphic offices and 253 independent telegraphic offices in the state with 81 telegraphic offices accepting the telegrams even in Devanagari Script.

### **Telecommunication**

Bangalore Cantonment appears to be the first recipient of telephone system, soon after its installation at Madras. During the Khedda Operation at Kakanakote in 1889, a line of about 36 miles was laid between Hunsur and Kakanakote. Another line of about 17 kms was laid between Hesaraghatta Water Reservoir and Chikkabanavar during 1896. During the plague outbreak in Bangalore and Mysore in 1898, temporary telephone lines were installed at Bangalore for anti-plague operations. In 1899, 50 government offices were provided with permanent lines. In 1909, new lines were laid in Mysore city and later connected to Bangalore in 1911-12. The telephone system was under the control of Electricity Department in the beginning. By 1918, the total length of telephone lines in the princely Mysore was about 852 kms.

Use of telephones in the twin cities of Hubli and Dharwad was started in 1936. On 31.3.1936, a telephone exchange of 50 connections was established at Dharwad. Belgaum city appears to have got telephone in 1930.

When Karnataka Postal Circle was formed in 1960, the administration of the Postal and Telecommunication services in the state was with this newly created postal circle. Due to the expansion of postal and telecommunication services, the combined setup was bifurcated on 1.9.1974. The Karnataka Postal Circle was headed by the Post Master General, whereas Karnataka Telecommunications Circle was headed by the General Manager. There was a separate General Manager for Bangalore city telephones.

During the period from 1982 to 1992, there was rapid expansion in the telephone system. As a result 83,258 telephones which were in use during 1982, rose to 3,75,043 telephones in 1992-93. By March 2000, there were 18,29,400 telephones working in the state and Bangalore (Urban) dt. ranked first with 6,08,103 telephones. There were 739 telephone exchanges functioning in Karnataka Circle in 1982, as against 1707 in 1992. As many as 92 new exchanges were started in 1992-93 and thus bringing the total number to 1,799 exchanges. They rose to 2,354 by March 2000.

A separate circle was formed for Bangalore Telephones in 1964. It was upgraded into major Telephone district on 23-7-1976. The growth of Bangalore Telecom District was spectacular. In 1966, there were only 13,300 telephones in Bangalore and it increased to 44,800 in 1978 and to 57,658 in 1982. During 1989, there were 85,475 phone connections. The Belgaum Exchange started functioning from 1957. Telephone Exchange of Bellary was commissioned in 1940, and had 50 connections at the outset. In 1952, telephone link between Mysore and Madikeri was established. Use of Telephones in Madikeri City began on 22-1-1955. The first telephone exchange in Chitradurga district, was started at Davangere



on 5-2-1953 with 44 connections. The telephone exchanges at Mandya and Chikmagalur, were started in 1955 and 1956. In 1971, there were 33 exchanges with 7,310 telephones in Dakshina Kannada district. Mangalore City alone had 4,200 telephones. There were 18,753 connections in use in 1960-61, and their number in 1991-92 was 1,39,503. There were 1,30,230 telephones in Dakshina Kannada District, where as 52,011 telephones were operating in Udupi dt. by March 2000.

In 1992-93, the number of STD/ISD routes in the State were 590. Apart from district headquarters, 159 taluk headquarters were brought under the STD network. During 92-93, 767 STD points were newly opened in order to facilitate greater access to the non-telephone owning public. The total STD points stood at 2,800. By providing new connections to 1,207 village panchayats, altogether 5,644 village panchayats were linked up with the telephone network. Travelling public too were taken care of by installing 207 public telephones on the national highways. There were 20,933 public STD booths working in different parts of the state by the end of March 1999. Free phone connections were provided to 598 tribal villages and 48 hospitals at various district headquarters. At present, all the taluk and hobli headquarters were brought under STD network and majority of the villages were provided with telephone services.

The first Telex Exchange in Karnataka was established at Bangalore in 1963. Later followed the Telex Exchanges at Mysore, Mangalore, Hubli, Belgaum, Davanagere, Bellary and Raichur, Nine more exchanges were opened till 31-3-1992, thus bringing the number of Telex Exchanges to 3,079, and those on the waiting list were 462.

### **All India Radio**

A radio transmission centre called Akashavani was started by Dr. M.V. Gopaldaswamy, a Psychology Professor of Mysore University at Mysore in 1935 through private effort. The station was taken over by the State Government in January 1941, It was later taken over by the Centre and shifted to Bangalore in November 1955. In the same year, the Bangalore AIR Station commenced its broadcastings through one high power transmitter. The First A.I.R., Station in the North Karnataka region started functioning at Dharwad, on 8th November, 1950. Opening of this station was a boon to the cultural field of North Karnataka. Auxiliary stations at Bhadravati and Gulbarga were started in 1965 and 1966 respectively. Another low power transmitter at Mysore was inaugurated on the 14th November 1974. It was upgraded in 1989 as an independent regional station. The Mangalore Station was inaugurated on the 14th November 1976.

After 1990, seven more stations began to operate at places like Chitradurga and Hassan (1991), Hospet(1992), Madikeri and Raichur(1993), Karwar(1994) and Bijapur(1997). Consequently, the total number of stations has increased from six to thirteen. Among them, while Dharwad, Bangalore and Bhadravati AIR stations have 2 x 100 KW transmitters, Gulbarga and Mangalore have 2 x 10 KW transmitters; Chitradurga has 6KW and Hospet has 2.5 KW transmitters; Hassan, Madikeri, Raichur, Karwar and Bijapur have 2 x 3 KW transmitters, whereas Mysore has only 1 KW transmitter. It is proposed to equip the AIR station at Mysore with 10 KW transmitter to broadcast the routine programmes more effectively. For the purpose of broadcasting Vividh Bharati Programmes separate low powered transmitters have been set up at Bangalore and Dharwad. Both the Stations are attached with regional news units which brings out three regional Kannada news bulletins daily. The radio stations cover about 96% of the State's population.

### Television

Gulbarga was the first centre in Karnataka to have a relay centre. It was inaugurated on 3-9-1977 and at the outset, in a radius of 40 km, 240 villages and towns of Raichur and Bijapur districts and Gulbarga were benefited by community viewing. The community viewing T.V. Sets were maintained and serviced by the Doordarshan Kendra, Gulbarga. Bangalore City was provided with an interim TV relay centre on 1-1-1981. Initially, Bombay and Madras TV Programmes were relayed for a limited period on the selected days of the week. But programmes could be locally produced and telecast only in December 1983. In 1984, TV transmitters were commissioned at Mangalore, Davangere, Bijapur, Bellary, Gadag, Raichur, Dharwad, Mysore, Belgaum and Hospet. The full-fledged production centre of the Bangalore Doordarshan was started in 1988.

The Doordarshan Kendra, through regional language satellite service started relaying Kannada programmes from 1-3-1990 was gradually regularised from 1-11-1990. On 12-1-1992, Shimoga had a 10 KW transmitter. As on 18-5-1993, there were 27 TV transmitters working in the State. All of them are connected to Bangalore Doordarshan Kendra. Apart from Kannada Programmes, the Kendra is also telecasting programmes in Tamil, Telugu, Marathi, Urdu, Kodava, Konkani and other Indian languages. About 72% of the population and an area of 86% in the State, was covered by the Doordarshan in 93-94. The Kendra started its DD9 transmission from 15-8-1994. Kannada Movie club was initiated in August 1995 and the Karnataka Regional Services DDK tract was inaugurated from December 1995.

By 1998, there were altogether 46 T.V. transmitters, comprised of 4 (HPT), 39 (LPT) and 1 (OT) respectively. During 1999-2000, besides upgrading the Hassan centre from LPT to HPT (10KW), new LPT's have been commissioned at Hiriyur, Hosadurga and Dandeli along with the VLPT commissioned at Badami in Bagalkot Dt. The exclusively parttime Kannada Channel, DD9 was made a 24 hours Kannada Channel (Chandana) of 12 hours of repetition, meant mainly for Kannada literary programmes, socio-economic and cultural activities with 30% of commercial viable programmes. The Doordarshan Kendra Bangalore had earned a sum of Rs. 19,61,67100 in 1998-99 from both sponsored programmes and commercial sources, but its revenue has fallen down to Rs.12,05,87,975 for the year ending 1999-2000. So far it has succeeded in covering 75.9% of the total area and 69.8% of the total population in the state which is well below the national average of 88.5% and 75.5% respectively. It is estimated that nearly 2.8 crores of the total state population are regular T.V. viewers within the State. There is a proposal not only to upgrade Mysore and Mangalore D.D. Centres from LPT to HPT, but also to install LPT's at Mudhol and Sindhanur. As on Dec 2000, 4 HPT's, 46 LPT's and 3 VLPT's were operating in the state and providing DD1, DD2 and Chandana Channel services to the people of Karnataka.

Besides Doordarshan satellite channels, privately initiated satellite channels like Udaya, Ushe, Kaveri, Udaya News, Suprabhata and Eenadu; Tamil Channels like Sun, Raj and Vijaya; Telugu channels like Eenadu, Gemini T.V.; Hindi channels like Zee, Home and Sony; Malayalam channels like Eenadu and Asianet; Other Channels like Star, ESPN, BBC, Discovery, National Geographic, FTV, MTV, Channel V etc., are providing varieties of entertainment through Cable Operators.



## Chapter VIII

# ECONOMIC TRENDS AND PLANNING

**E**ven before the advent of the British there were slight changes in the cropping pattern in agriculture. The introduction of agricultural crops like potato, chillies, groundnut and tobacco was one factor. The opening by the Portuguese new sea routes brought new competitors to Arabs, who enjoyed almost a monopoly of Indian's overseas trade. Soon came the Dutch and the English on Karnataka's coast and overseas demand for Indian goods like rice, textiles, diamond and spices received a fillip. Tipu introduced sericulture and also started glass and paper industry, and later agarbathi production has been initiated by the Adilshahis in North Karnataka area.

### **Advent of British**

With the advent of the British, roads, bridges and communication facilities increased, fostering trade. Railways gave a further fillip to this activity. But Industrial Revolution in England and British colonial policies gave a severe blow to spinning industry which was universal and provided jobs to lakhs of women and also to weaving of textiles and gunny bag manufacture, iron industry and paper. Salt monopoly threw thousands of salt makers out of job and introduction of kerosene weakened indigenous oil extractors effecting their prosperity. Thus pressure on land and dependence on agriculture alone increased. But plantations of coffee and public works gave job to thousands. Famines and epidemics like plague during the later half of the 19th century killed lakhs depleting the labour force. The newly started textile factories in Bangalore had to be closed for some months for want of labour. But famine relief works provided jobs to many. Abolition of Slavery Act (1843) also brought about many changes in labour supply, especially in plantations and public works.

The British, according to their colonial policies, were encouraging the raising of raw material crops. They introduced American long fibre cotton into Karnataka. The Cotton Boom of the 1860's (American Civil War days) had its own impact. In the long run it helped creating of cotton processing units. Cotton weaving did not totally die, but its massive foreign market was lost.

The administrative policies of the British helped the expansion of urban centres like Bangalore, Bangalore Cantonment, Mysore, Mangalore, Davangere, Hubli, Gadag, Hospet, Gulbarga etc., This was due to increased industrial activity and concentration of offices or units like railway workshops. Mangalore saw tile factories started by Basel Mission. During the first half of the 20th century new towns like Mandya, Bhadravati, Raichur, Harihar, Chikmagalur, etc., expanded. New towns saw starting of hotels, giving a fillip to demand for milk in bulk. Mysore's economic planners were to start a process of economic activity not seen earlier by raising dams and starting industries and by generating power. The process

had been set afoot by Dewan Sheshadri Iyer. In the meanwhile co-operative movement and banking expanded during the first quarter of the 20th century. Beedi rolling, a domestic industry emerged by providing labour to the needy.

### **Planning in Mysore**

The economic conference between (1911 and 1931) initiated by Sir M.Visveswaraya in princely Mysore introduced through his book 'Planned Economy for India' has suggested schemes for the development of Industries and thus for the improvement of the State economy. 'Industrialise or Perish' was his slogan. Princely Mysore State was the first State in the country to formulate an economic plan which contained a number of schemes in 1946 at an estimated cost of Rs. 48.99 crores. Despite this, the State was largely pre-industrialised and under developed at the commencement of the era of planning. Free India later launched a programme aimed at the Welfare State and at the same time developing basic and key industries. Thus came many Central Government industries to Bangalore and attempts were made to expand irrigation potential by raising the Thungabhadra Dam and other irrigation projects. Even though the State was predominantly agricultural the minimum infra-structure for growth of industries had been created.

The economy of the princely State by 1950 was characterised by the following features:

1) Population relatively was not in proportion to the utilisation of resources, 2) Agricultural sector which was not progressive due to low yield and poor credit and marketing facilities and prevalence of uneconomic holdings, 3) Low level of Industrialisation, 4) Low *per capita* income, low rate of capital formation and inadequate infrastructure.

In order to offset these drawbacks in the State Plans, major thrust was on the following facts; 1) Removal of poverty and attainment of self-reliance, 2) Increasing the level of *per capita* income both in real and in money terms, 3) Providing employment opportunities, 4) Optimum utilisation of available resources, 5) Development of Agriculture and Industry. 6) Holding the price line, 7) Meeting the minimum requirements of the people through Minimum Needs Programme, 8) Equitable distribution of wealth and income.

### **Development under plans**

**First Five Year Plan:** In the first plan the outlay was Rs. 47.58 crores and the expenditure was Rs. 40.51 crores in the erstwhile Mysore State. The major expenditure was Rs. 15.37 crores for irrigation, Rs. 10.39 crores for power, Rs. 4.80 crores for industries and Rs. 3.60 crores for agriculture.

Regarding Physical Progress, 'Grow More Food' campaign was popularised, National Extension Scheme was introduced, 4,100 acres of afforestation was achieved and three major and 11 medium irrigation projects were undertaken.

**Second Five Year Plan:** The Second plan was revised after State Re-organisation, with an outlay of Rs. 145.13 crores. The expenditure was 142.82 crores. The major expenditure was on irrigation (Rs. 28.27 crores), on power Rs. 28.02 crores and on social services Rs. 32.42 crores. During this plan agriculture production increased. Minor irrigation facility was extended by 3 lakh acres and three major and 12 medium size projects were taken up for construction at an estimated cost of Rs. 78.69 crores. Additional power generation went up to the extent of 269.5 Million KW.

**Third Five Year Plan:** This was the first comprehensive plan for the economic development of the State, with an outlay of Rs. 246.22 crores and an expenditure of Rs. 264.75 crores. About 41 percent was earmarked for better utilization of water and power development, 18.46 per cent for agricultural and allied activities. The *per capita* expenditure went up to Rs. 106 as against Rs. 64.5 in second plan. The important projects under this plan were the Harangi, the Hemavathi, the upper Krishna and the Malaprabha.

During the Annual Plan of 1966-67, the expenditure was Rs. 54.68 crores.

**Fourth Five Year Plan:** The main emphasis of this plan was on (a) regional development (b) adoption of district plans. The strategy of the plan included the objectives of achieving a growth rate of 5.6 percent in agriculture. The expenditure incurred was Rs. 386.82 crores.

Regarding achievements, total irrigated area increased from 13.15 lakh hectares in 1969-70 to 15.94 lakh hectares in 1973-74. Installed capacity of power increased from 877.5 MW to 966.6 MW at the end of Fourth Plan. Per capita consumption of energy increased from 82 units to 121 units. Area under agriculture from 10,028,000 hectares to 17,504,000 hectares. Food production from 56,38,00 tonnes to 66,41,000 tonnes.

**Fifth Five Year Plan:** The main feature of this plan was removal of poverty and attainment of economic self-reliance. The main objectives were (1) to achieve a growth of 8.5% per annum, to raise the level of per capita income to that of national level, (2) to provide highest priority for power and communication, (3) to maximise productive employment both in rural and urban areas, (4) To bring about enlarged and more diversified and decentralised industrial base in the State.

The outlay was Rs. 1076.33 crores and the expenditure was Rs. 852.39 crores by 1977-78. The plan came to an end by 1977-78, instead of 1978-79. This worked out at cent per cent expenditure. The percentage of average annual growth from 1973-74 to 1977-78 was 7.1 at current prices and 6 at constant prices of 1956-57. The State income at the end of the Plan was Rs. 2,913 crores at current prices and the *per capita* income was Rs. 840 at current prices.

The last year of Fifth plan 1978-79 and the next year 1979-80 were called Annual plans. Total outlay was Rs. 345.27 crores in 1978-79 and Rs. 385.39 crores in 1979-80 and expenditure was Rs. 303 crores respectively.

**Sixth Five Year Plan:** The main feature was to achieve full employment by 1988, and for the maximum utilisation of the State's resources and to achieve a growth rate of 6.5 per cent and to increase the per capita income from Rs. 1,115 (1979-80 prices) to Rs. 1,500 in 1984-85. The outlay was Rs. 2,400 crores. The physical achievements include, increase of food production from 57.74 lakh tonnes in 1980-81 to 67.37 lakh tonnes in 1981-82; the total number of villages electrified increased to 17,626; the installed capacity in 1981-82 was 1847 MW; 39,927 small scale industrial units were employing 3.25 lakh persons with an investment of Rs. 332 crores; severe draughts causing not only decline in agriculture but also power production giving a blow to industries was also evidenced during the period.

**Seventh Five Year Plan:** The outlay was Rs. 3,575 crores and the expenditure was Rs. 4,056.4 crores. During the Seventh plan period the annual average growth in the State Domestic Product was placed at five percent compared to 5.6 per cent at the national level (S.D.P reflects the growth of real output in economy). The annual average growth in agriculture and allied activities in the State during the Seventh plan was only 2.1 per cent (3.4 per cent at all-India level). In Industrial production, the growth was 6.6 per cent (7.5 per cent at all-India level). The growth in the unorganised sector of the industry which accounted for 50 per cent of the industrial output in the State in early 1980s had slackened. The main reasons for this slow growth rate of State's economy are low growth in creation of irrigation potential coupled with frequent draughts and chronic power shortages. Nearly 75 per cent of the net sown area is still depending on rainfall.

The State Plan outlay is considerably being increased, the level being nearly 10 times of that of the Second Plan even in real terms. During 6th and 7th plans investment on Centrally-sponsored scheme has also increased. There has been marked increase in the private investment also.

There were significant shortfalls in the State Plan expenditure. The State's share in the total plan outlay for all states in the country which was 5.5 per cent during Fifth plan has declined to 4.4 per cent in Seventh plan and 5.4 per cent in Annual Plans of 1990-92.

**Eighth Five Year Plan:** The approved outlay for the Eight five year plan at Rs. 12,300 crores at 1991-92 prices was more than double the Seventh plan level of Rs. 3,500 crores. Against annual approved outlay of Rs. 16,150 crores, expenditure has fallen short by 8.0 percent at Rs. 14,894 crores. In real terms this is 8.3 percent less (Rs. 11,272 crores) than the Eighth plan approved outlay of Rs. 12,300 crores although still almost double that during the Seventh plan.

Major Eighth plan achievements against original targets are labeled below.

1. Annual average growth of 5.6%.
2. Bringing the percentage of people below the poverty line to 25% from 38%.
3. Generating 15 to 20 lakh employment opportunities.
4. Increasing operational efficiency in irrigation and power and
5. Increasing basic facilities such as housing, health education and water supply.

**Ninth Five Year Plan :** The outlay approved by the planning commission for the Ninth five year plan 1997-2002 is Rs. 23,400 crores at 1996-97 prices. This is almost double (90 percent higher than) the Eighth plan approved outlay of Rs. 12,300 crores at 1991-92 prices and 57 percent higher than the 8th plan expenditure of Rs. 14,894 crores. The Ninth plan has been formulated keeping in view the changed national scenario and the consequent expected role of planning, identified strengths and weakness in the State's economy, as well as its critical needs. The State's growth performance must keep pace with national growth rates and overstrip. Productivity in different sectors must also go up. The growing problem of unemployment needs to be addressed by reserving the observed phenomenon of secondary and tertiary sectors to proportionately absorbing as much of the disguised unemployment in the primary sector as their growth would warrant.

The ultimate goal of development efforts is human development with its two prerequisites of reduction of poverty and improvement of the quality of life. Within this overall goal inequalities and injustices must be set right and issues of original and gender equity redressed. Crucial areas requiring attention are basic facilities like education, health, drinking water, sanitation and housing.

### **Financial Resources**

The State's resource management is claimed to be reasonably good. As in 1989-90, the Tax effort (*per capita* state's own Tax Reserve as per cent of *per capita* income) was 17.44 as compared to 12.44 in respect of all states, and 18.68 in Tamil Nadu. The resource picture for the eighth plan was based on a much better initial position. The State has taken various measures to augment internal resources. The economy of the State experienced a recovery in 1991-92 with a growth rate of 7.4 per cent. The growth rate observed in the Net State Domestic Product and *per capita* NSDP of the state which generally measures the growth rate in State's economy, showed an increase in 1991-92, compared to previous years. The NSDP and *per capita* income (PCI) at current prices increased by 22 per cent and 20 per cent respectively. On the price front there has been a perceptible improvement in the country during 1993-94. The rate of inflation is 8.5 per cent compared to 10 per cent in 1992-93. The state in GSDP is expected to be 5.0 percent as against 5.9 percent at the all-India level. The wholesale price index for agricultural commodities increased from 424 in March 1999 to 436 in October 1999 (A rise of 3.70 percent compared to a rise of 4.95 percent during the corresponding period of the previous year) inflation measured in terms of the consumer price index for the Industrial workers on point to point basis is lower than in the previous year at about 4.62 percent against 5.80 at the national level. Few selected economic indicators of the State from 1980-81 to 1997-98 are given in the table.

Selected Economic Indicators : Karnataka 1980-81 to 1997-98										
Indicator	Unit	1980-81	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
1. Net State Domestic Product										
a) At Current Price	Rs. Crores	5587	20551	26738	29162	33924	40427	45133	51360	57952
b) At (1993-94) Constant prices	Rs. Crores	5587	9112	10270	10508	11291	11812	12337	13047	13684
2. Per Capita State Income										
a) At Current Price	Rupees	1520	4598	5889	6321	7242	8504	9359	10504	11693
b) At (1993-94) Constant Prices	Rupees	1520	2039	2262	2278	2410	2485	2558	2668	2761
3. foodgrains Production	Lakh Tonnes	62.02	62.44	79.01	86.00 (p)	77.88	81.11	86.45	92.13	80.37
4. Production of cotton (lint)	Lakh Bales	5.97	6.40	9.54	10.10(p)	9.75	8.15	9.63	10.09	6.34
5. Sugarcane Production	Lakh Tonnes	121.27	207.50	240.62	218.72(p)	228.28	330.93	275.58	233.74	289.99
6. Oilseeds Production	Lakh Tonnes	6.50	13.39	18.12	17.96(p)	17.12	15.42	17.43	17.55	11.39
7. Irrigation Potential Created (cum) (Excluding ground water)	Lakh Hects.	18.56	22.42	22.90	23.40(p)	24.35	-	-	-	-
8. Installed capacity of power generation	M.W.	1470	2985	3013	3109	3265	3470.05	3491.67	3522.97	3578.97
9. Price Indices (Annual Ave.)										
a) Wholesale Price of Agricultural commodities in Karnataka	1952-53 1981-82=100*	545	202	245	259	268#	346	369	386	408
b) Consumer Price Index for Industrial Workers in Karnataka (Calender Year given in bracket)	1960=100 1987-88=100	408 (1980)	976 (1990)	1167 (1991)	154 (1992)	164 (1993)	178 (1994)	200 (1995)	216 (1996)	233 (1997)
c) Cosumer Price Index for Agricultural Labourers in Karnataka	1960=61=100	373	781	953	1143	1093#	1223	1440	1529	1576

Note : Wholesale Price Index Numbers from 1990-91 onwards is converted to 1952-53 base. Conversion factor is 6.27. Source : DES, Bangalore.



### Other Trends

The State is endowed with rich natural resources. The hydro electric potential in the State has been assessed at 4,347 MW at 60 per cent load factor. The actual installed capacity was 3002 MW as in March 1992. An additional capacity of 156.21 MW raising the total capacity was 3,265 MW by the end of 1993-94 was envisaged. The energy generation in 1993-94 was of the level of 12.8 per cent over the level in 1992-93. However the generation of power in 1993-94 was about 14,385 MWs.

Energy generation in 1999-2000 was 20,688 MW an increase of 20% over the 1998-99 level of 7245 MW (0.6%).Hydel generation is expected to show an increase of 14% in 1999-2000 over the 97-98 level of 10,356 MU (Million Units).

In Industry, iron, iron ingots, steel, sugar, soap, silver, iron ore, cement, cigarettes and aluminium have shown an increase while the production of sandalwood, oil, paper, fertilisers, silk fabrics, wrist watches, and gold have declined in the year 1999-2000 compared to the previous year. Under special employment programme an additional 25 lakh mandays was generated during 1999-2000 compared to the previous year. There is an increase of 2.88% in the number of registrants in employment exchange which is a matter of concern.

The annual rate of inflation was 3% in 1999. It had recorded an increase of 8.88% during 1998-99. The annual rate of inflation fell to 2.9% which was due to fall in the price of essential commodities. There has been an increase in the price index of edible oils, rubber and plastic products, non food articles and textiles and significant low increase of other items was noticed in 1999-2000. The wholesale price index (base of 1981-82) rose to 6.56% compared to 4.10% of 1998.

The price of all the essential commodities moved up during 1992 as compared to previous year and in previous decade. The index numbers of working class moved up in all the 10 centres of the State. The index moved up by more than 15 per cent in Madikeri, Bhadravathi, Davanagere, Mysore and Mangalore centres. In 1987-88, 32 per cent of the population in the state lived below the poverty line. In order to alleviate the problem, several schemes like Jawahar Rozgar Yojana, Indira Awas Yojana, Million Wells Programme, Drought Prone Area Programme, Western Ghat Development Programme, Integrated Rural Development Programme, Assistance to Surplus Land Grantees, Assistance to Marginal Farmers for increasing agricultural production, Development of Women and Children in Rural areas, Rehabilitation of released bonded labourers, Border Area Development Programme, and National Scheme of Training of Rural Youths for Self-Employment were implemented. Hyderabad Karnataka Development Board, Malnad Area Development Board etc., have also been constituted.

**Economic Census:** The economic census was conducted in 1990 and the final results revealed that there were 16.94 lakh enterprises in the State forming 7.8 per cent of all-India total. The highest was in West Bengal (27.95 lakhs) and the State occupied sixth position. The number of persons usually working in these enterprises was 50.04 lakhs, whereas it was 87.03 lakhs in Maharashtra. Karnataka occupied 5th place. The average number of workers per enterprise was 3, (3 in rural, 4 in urban). Out of 16.95 lakh enterprises, 14.86 lakhs (87.7 per cent) were non-agricultural enterprises. Agricultural enterprises were 4.3 lakhs in Andhra Pradesh with West Bengal standing first (25.33 lakhs).

As per the 1998 Economic Census, there were 19.12 lakh enterprises in Karnataka, engaged in different economic activities other than crop production and plantation, with 52.53 lakh persons usually working in them. Karnataka accounted for 8.01 percent of all India enterprises (23.8 million) contributing 8.15 percent of persons usually working in all enterprises of the country as compared to the provisional figures of all India 1998. The Economic Census 1998 reveals that there has been an increase in number of enterprises

as well as in total employment over the corresponding figures of 1990. Number of enterprises in Karnataka increased from 16.94 lakhs in 1990 to 19.12 lakhs in 1998 or by (12.87%) with increase in the number of persons usually working in these enterprises from 50.83 lakhs to 52.53 lakhs (or by 3.35 percent). In the hired workers category, there was a decrease from 28.72 lakhs in 1990 to 27.28 lakhs in 1998, or by +5.01%.

Out of 19.12 lakh enterprises operated in Karnataka in 1998, 16.52 lakh enterprises accounting for 86.4% were engaged in non-agricultural activities and the rest 2.60 lakh enterprises accounting for 13.6% were engaged in agricultural activities other than crop production and plantation. As against this, the corresponding shares of non-agricultural activities and agricultural activities in terms of percentages were 87.7 and 12.3, respectively, during 1990. Of the total number of enterprises in 1998, 11.52 lakh enterprises (60.3%) were located in rural areas and the remaining 7.60 lakh enterprises (39.7%) were in urban areas. As against this, it was 61.0 percent in rural areas, and 39.0 percent in urban areas, in 1990. Own Account Enterprises (OAE) i.e., enterprises which are owned and operated with the help of household labour only, numbering 11.93 lakhs constituted about 62.40 percent of the total number of enterprises. Establishments (i.e., enterprises which employed atleast one hired worker on a regular basis) numbering 7.19 lakhs constituted 37.6 percent of the total enterprises. The increase during 1990-98 in Own Account Enterprises and Establishments was observed to be 11.1 percent and 16.2 percent, respectively. The detailed picture with regard to the number of enterprises and employment therein with rural and urban breaks up are given below.

#### Distribution of Enterprises and Employment by Rural - Urban Location

Sl. No.	Type of Enterprises and Employment	Rural		Urban		Combined Number
		Number	%	Number	%	
1	2	3	4	5	6	7
<b>Agricultural activity</b>						
1.	All Enterprises	246690	95.18	12488	4.82	259178
	a) Own Account Enterprises	172236	95.02	9029	4.98	181265
	b) Establishment	74454	95.56	3459	4.44	77913
2.	Persons usually working in enterprises					
	a) Own Account Enterprises	379039	95.57	17582	4.43	396621
	b) Establishment					
	i) Total	311498	95.54	14527	4.46	326025
	ii) Hired	202334	95.15	10310	4.85	212644
<b>Non-Agricultural activity</b>						
1.	All Enterprises	905402	54.79	747051	45.21	1652453
	a) Own Account Enterprises	595175	58.86	416060	41.14	1011235
	b) Establishment	310227	48.38	330991	51.62	641218
2.	Persons usually working in enterprises					
	a) Own Account Enterprises	882603	57.27	658403	42.73	1541006
	b) Establishments					
	i) Total	1184243	39.61	1805544	60.39	2989787
	ii) Hired	996493	39.61	1519235	60.39	2515728

**Agricultural and Non-Agricultural activity**

1	2	3	4	5	6	7
1.	All Enterprises	1152092	60.27	759539	39.73	1911631
	a) Own Account Enterprises	767411	64.35	425089	35.65	1192500
	b) Establishment	384681	53.49	334450	46.51	719131
2.	Persons usually working in enterprises					
	a) Own Account Enterprises	1261642	65.11	675985	34.89	1937627
	b) Establishments					
	i) Total	1495741	45.11	1820071	54.89	3315812
	ii) Hired	1198827	43.94	1529545	56.06	2728372

**Tax structure:** The Tax structure in Karnataka was fairly elastic. State Tax Revenue, share in Central Taxes, and total non-tax receipts are given in the table.

**Trends in revenue and capital receipts in Karnataka**

(Rupees in Crores)

Sl. No.	Year	State's own tax Revenues	Share in central taxes	Total tax Receipts	Total Non-tax Receipts	Total Revenue Receipts	Total Capital Receipts	Aggregate Receipts
1.	1975-76	236.73	86.65	323.38	190.94	514.32	137.44	651.76
2.	1980-81	474.68	197.71	672.39	281.05	953.44	312.56	2266.00
3.	1985-86	1075.58	555.99	1631.57	581.54	2213.11	1183.76	3396.87
4.	1990-91	2882.12	660.35	3542.47	899.71	4442.18	1117.92	5560.10
5.	1991-92	2900.20	782.70	3682.90	1093.19	4776.09	1432.21	6208.30
6.	1992-93	1397.81	931.97	4029.78	1391.88	5421.66	1604.19	7025.85
7.	1993-94	3812.34	1017.40	4829.74	1494.90	6324.64	1728.65	8053.29
8.	1994-95	4289.31	1135.93	5425.24	1543.15	6968.39	1749.23	8717.62
9.	1995-96	5273.92	1444.67	6718.59	1824.85	8543.44	1838.48	10381.92
10.	1996-97	5767.83	1729.80	7497.63	2124.55	9422.18	2401.95	12024.13
11.	1997-98	6411.87	2176.33	8588.20	2025.19	10613.39	2011.05	12624.44
12.	1998-99 R.E.	7280.05	1923.92	9203.97	2964.34	12168.31	3341.11	50509.42
13.	1999-00 B.E.	8575.92	2306.03	10881.95	3109.83	13991.78	3755.58	17747.36

R.E. : Revised Estimates; B.E. : Budget Estimates

Source : Economic Survey 1998-99 and 1999-2000.

The Government of Karnataka has appointed Karnataka Tax Reforms Committee in 2000 with M. Veerappa Moily, former Chief Minister as the Chairman.

## Employment

Removal of unemployment and providing placements to the unemployed are the major objectives of planning. The number of registrations in the live register of Employment Exchange is considered to be a proxy measure of unemployment. The number of registrations in the State was 6,39,890 in 1981, 13,27,761 in 1991, 15.11 lakhs in 1993, 18.18 lakhs in March 1999 and 18.90 lakhs in March 2000. However it is also to be noted that all those who have registered are not unemployed and all the employed may not have got placements through Employment Exchange. There are 49 Employment Exchanges in the State, of these 26 are district employment exchanges, one project employment exchange, one Sub-Regional Employment Exchange, one Professional and Executive Employment, one Special Exchange for SC/ST, four for the Physically Handicapped, six University Employment Bureau, six compulsory notification vacancy, one career study centre, one job development and industrial service centre and one state computer centre. The total number of job seekers on the Live Register of Employment Exchange for all-India as on September 2000 was 414.60 lakhs. The total employment in the organised sector during 1999-2000 was 18.63 lakhs of which 13.59 lakhs was in the public sector and 10.57 lakhs were in private sector. The persons on the live register in the employment exchange and the employment in organised sector is given in the table.

### Employment in the organised sector in Karnataka from 1970-71, to 1999-2000

in thousands

Year	Public Sector		Private Sector		Public and private Sector	
	Total	Women	Total	Women	Total	Women
70-71	558.7	52.6	274.2	56.7	832.9	109.3
75-76	669.1	65.6	305.5	52.5	974.6	118.1
80-81	794.2	90.0	348.3	55.5	1142.5	145.5
81-82	816.1	95.0	355.9	57.1	1171.6	152.1
82-83	831.8	97.3	359.9	59.6	1191.7	156.9
83-84	863.5	103.0	355.2	58.5	1218.7	161.5
84-85	894.1	114.4	367.1	61.5	1261.2	175.9
85-86	926.2	124.0	372.2	63.9	1290.4	197.9
86-87	948.9	128.5	374.4	64.4	1323.3	192.9
87-88	962.1	135.5	389.3	67.2	1351.4	202.7
88-89	987.5	146.7	398.0	75.9	1385.5	222.6
89-90	1004.9	149.4	403.0	82.3	1407.9	231.7
90-91	1017.3	160.0	430.0	92.1	1447.3	252.1
91-92	1028.0	167.0	451.5	98.2	1479.5	262.5
92-93	1026.0	170.7	475.0	110.7	1501.0	280.7
93-94	1032.8	178.6	497.6	127.8	1530.4	306.4
94-95	1050.6	190.5	527.6	138.5	1578.2	329.0
95-96	1058.4	199.0	700.9	273.8	1759.3	472.8
96-97	1083.6	216.9	731.9	289.4	1815.5	506.3
97-98	1086.3	223.0	757.2	308.6	1843.5	531.6
98-99	1092.0	234.6	756.9	310.5	1848.9	545.1
99-00	1112.6	246.3	750.6	306.5	1863.2	552.8

Source : Directorate of Employment and Training, Govt. of Karnataka.

**Registrants on the live registers of Employment Exchanges in Karnataka** in thousands

Year	Post Graduates	Graduates	Diploma Holders	ITI	Matric	Below Matric	Total
1975-76	4.36	37.90	3.5	6.41	166.04	145.08	373.3
1980-81	5.51	69.10	5.52	8.40	290.78	228.48	607.4
1981-82	5.37	70.28	6.88	12.38	308.26	227.91	631.0
1982-83	6.00	71.32	8.01	11.96	348.21	249.05	694.5
1983-84	6.79	69.78	9.21	14.04	385.64	258.32	743.7
1984-85	7.83	77.71	10.00	15.67	422.56	257.79	785.5
1985-86	7.10	88.35	12.96	19.55	517.34	309.14	954.7
1986-87	8.39	100.35	15.75	24.23	581.37	339.79	1069.8
1987-88	6.89	86.74	16.91	27.98	538.01	313.75	990.02
1988-89	8.18	93.76	20.48	31.63	604.89	323.75	1082.6
1989-90	9.72	105.60	25.88	36.66	699.74	371.05	1248.6
1990-91	10.35	112.71	24.31	38.53	773.49	368.37	1327.7
1991-92	11.96	119.61	28.38	41.95	867.77	374.00	1443.6
1992-93	13.02	129.38	31.20	45.94	941.51	350.33	1511.4
1993-94	14.11	156.25	33.13	45.92	1007.87	323.38	1580.66
1994-95	14.82	158.98	34.50	49.07	1055.15	336.70	1649.22
1995-96	14.82	163.59	32.57	51.58	1126.76	349.68	1739.00
1996-97	14.24	166.04	36.89	58.32	1164.15	340.58	1780.22
1997-98	13.81	171.70	37.50	61.17	1187.67	335.01	1806.86
1998-99	14.50	159.34	38.15	65.02	1235.65	305.39	1818.05
1999-00	14.90	161.27	38.81	74.46	1288.82	312.26	1890.52

**Number of Vacancies Notified and Placements made from 1970-71 to 1999-2000**

in thousands			in thousands		
Year	Vacancies notified	Placements made	Year	Vacancies notified	Placements made
70-71	27.8	15.7	89-90	19.6	10.2
75-76	26.9	14.1	90-91	18.0	5.8
80-81	33.8	20.0	91-92	18.9	14.4
81-82	30.1	16.8	92-93	24.0	12.4
82-83	38.0	18.7	93-94	29.71	16.29
83-84	32.0	13.2	94-95	28.94	25.26
84-85	32.6	15.4	95-96	29.48	14.30
85-86	20.7	13.3	96-97	28.63	21.55
86-87	23.5	9.2	97-98	29.90	22.19
87-88	18.6	8.4	98-99	31.59	25.41
88-89	15.9	9.1	99-00	26.21	19.22

Source : Director of Employment and Training.



## Chapter IX

# ADMINISTRATION

**M**any of our administrative institutions were the legacy of the administrative arrangements that existed in the past. The text on Hindu polity like *Manusmriti*, *Arthshastra*, Kamandaka's *Nitisara* did influence administration in Karnataka as elsewhere in India in ancient period as testified by inscription dating back to more than 1200 years. There were *Nadus* of 12 villages or 30 villages like *Kisuvolal-6*, *Mulgunda-12* or *Honnathi-12*, or *Kolarur-30* or *Navilgunda-30* the figures indicating the number of villages in the *Nadu*. There were bigger units like *Nagarakhanda-70*, *Rattapalli-70*, *Hangal-500* and districts like *Belvola-300*. *Terachuwadi-1000*, *Kuhundi-3000*, but provinces like *Banavasi-12000*, indicated that it had 12 districts, *Nolambavadi-32000*, had 32 districts.

During the ancient period when kings ruled the land, the kingdom was divided into *Maharashtra* (zones) and *Rashtras* or *Deshas* or *Mandalas* or provinces. Under these provinces were a number of districts called *Nadu* or *Vishaya* and each district had a certain number of villages or 'gramas' attached to them. Every province had a senior Viceroy or Governor to administer it apart from the hereditary local officers. Districts had *Nadagavundas* with certain powers invested in them. There were several village level officials called *Patela*, or *Gouda* (evolved from *gramakuta*) a village headman who did police duties also. Revenue records were maintained by the *Shanbhogues* or *Senabhova* or *Kulkarni* (*Karanika* or clerk) as mentioned in many inscriptions. Revenue records were called *Kadita* and officer in charge of it as *Kaditavergade*. Revenue administration formed the foundation of all administrative matters. The village headman had under him the *totis*, *talaris*, *sanadis* or *ugranis* who were the village militia. When the British took over Bombay and Madras-Karnatak region they appointed Collectors for districts, *Mamlatdar* or *Tahsildar* under them for taluks, and Revenue Officers for circles. The village hereditary officials also continued. The old Mysore area which was under *Wodeyars* came under the British commissioner's rule in 1831. During this period (1831-1881) the British system of administration was gradually introduced and in 1881 the State was restored to *Mysore Wodeyars*.

Until 1-8-1956, the State was divided into 4 divisions comprising 19 districts, 49 sub-divisions and 175 taluks. With the creation of Bangalore Rural District in the same year the number of districts rose from 19 to 20 while the number of sub-divisions and taluks remained the same. Bangalore Rural, Chikmagalur, Chitradurga, Hassan, Kolar, Mysore, Mandya, Shimoga and Tumkur constitute the old Mysore state as it existed from 1799 to 1953. The present Bellary district was transferred to Mysore from Madras state in October 1953 by which time the princely state of Sandur was already merged in the district. Kodagu district as it exists now was a group C state. The present Dakshina Kannada district was part of Madras Presidency till 1.11.1956, as also Kollegal taluk of Coimbatore

district which was included in Mysore district. The present districts of Belgaum, Bijapur, Bagalkot, Dharwad, Haveri, Gadag and Uttara Kannada districts were in Bombay State. The whole or portions of former princely state viz. Ramdurg, Jhamkandi, Miraj Senior, Miraj Junior, Kholapur, Kurundwad Junior, Sangli, Audh, Mudhol and Savanur are found interspersed in Belgaum, Bijapur and Dharwad districts.

Earlier the district of Bijapur, Belgaum and Dharwad and Uttara Kannada were under the Bombay Presidency. These districts constitute Belgaum division. The districts of Gulbarga, Bidar and Raichur were in the former Hyderabad state. They constitute Gulbarga Division with Bellary district merged from Madras Presidency. Kodagu, a group C state ruled by a Commissioner was made into a separate district and was merged into Mysore Division into which Dakshina Kannada, Mandya, Shimoga, Hassan, Chikmagalur and Mysore were included. Kollegal taluk from Coimbatore district was made a part of Mysore district. Bangalore division has Bangalore, Bangalore Rural, Tumkur, Chitradurga and Kolar.

The areas now included in Karnataka experienced administrative changes necessitated by the merger of princely states, by Federal Financial Integration and by State's Reorganisation. As many as 573 villages which formed part of 13 States have been merged in Belgaum, Bijapur and Dharwad districts. Sandur State was merged in the Bellary district. The merger rendered it necessary to extend the administrative system and laws of the absorbing unit to the merged areas. There was also the problem of integration of services. Federal Financial Integration affected only the areas which formed part of the former princely states of Mysore and Hyderabad. The departments in these states which were dealing exclusively with subjects in the Union List such as Railways, Posts and Telecommunications, Broadcasting, etc., were transferred to the Central Government. Composite departments like the Excise Department and the Income Tax and Sales Tax on income had to be bifurcated and the staff, records etc., attributable to the subjects in the Union list were transferred to the Central Government. The State Reorganisation was implemented on 1st November 1956 which resulted in the District officers being designated as the Deputy Commissioners in the whole state and they were assisted by the Assistant Commissioners at sub-divisional levels and the Tahsildars at the taluk levels.

### **Land Reforms**

Land Reforms programmes undertaken all over the country in the wake of Independence had three specific objects: (1) Abolition of intermediaries like Zamindars, Inamdars and such other absentee landlords (2) Regulation and subsequent abolition of tenancy, and (3) Putting a ceiling on the ownership of land by cultivating households. The Jatti Committee submitted its report in September 1957, and these recommendations finally resulted in the enactment of the Karnataka Land Reform Act in 1961. However a more egalitarian legislation was enacted in 1971 which is still in operation.

The land revenue system throughout the state is the ryotwari system wherein each landowner deals directly with the Government. Revenue records show the extent of land held and the revenue payable for such land every year. Systematic collection is possible only

if such records are available. Records are maintained for each village separately. These records though prepared originally for facilitating collection of revenue in course of time have come to be regarded as indicating title to the land also, as all changes in ownership were being incorporated in these accounts. These gradually came to be known as record of rights. Village Accountants were appointed displacing the hereditary Kulkarnis in Bombay state in 1950, and the new officials were then called Talatis, and in the whole of Karnataka in 1962 displacing hereditary Shanbhogues, and they are in-charge of revenue records of their respective villages and are responsible for collecting revenue. They are a transferable cadre. The state had its land surveyed and settlement made in 1964.

The district is the principal unit for administrative purposes. The head of the district, or the Deputy Commissioner passes orders on most of the matters relating to the collection of land revenue and administration of land. The important unit between the district and the village is the taluk or tahsil. In between the villages and the taluk office there is an executive official known as the Revenue Inspector who supervises the work of the village officers of a group of villages placed under his charge. His unit of jurisdiction is called a hobli or revenue circle. In between the Taluk and the Village Office is the Nad Kacheri for a circle. They were introduced on an experimental basis in one hobli each in totally 175 taluks in 1986. One more circle in each taluk had a *kacheri* opened in 1987. Nad kacheri is headed by Deputy Tahsildar/Shereshtedar who supervises the work of village officers in his jurisdiction. Similarly for a group of taluks there is a sub-divisional officer or an Assistant Commissioner who is the appellate authority as well as supervisory officer in respect of the taluks placed under him. The Chief controlling officer for matters connected with land revenue is the Divisional Commissioner.

As the five different regions of the pre-unification days were accustomed to different office procedure a new *Secretariat Manual* was prepared and enforced in 1958. This established a uniform office procedure at the Secretariat and at the district level. The areas which comprised the new State had their own heritage of administrative organisation, their own laws, rules and regulations, methods or work, development schemes etc. Taxation laws which were different for different areas were formulated on the basis of the recommendation made by the Mysore Finance Enquiry Committee and made them uniform throughout the State. In addition, it also streamlined various other Acts and Rules in force and introduced uniformity in administration.

The district administration is evolved into a fairly clear establishment, conforming to the purpose and apparatus of Government in the district. The purpose is three-fold, i.e., maintenance of law and order, revenue administration, and the development activities for the economic and social advancement of the people of the district.

Under Article 154 of the Constitution of India, the executive power of the State vests with the Governor. He is the constitutional head of the State and the Government is carried on in his name and is appointed for a period of five years. Although in theory the Governor is the repository of all executive authority, he seldom exercises his authority directly except under extraordinary circumstances. In practice the council of ministers exercise all the



executive powers of the state. The council is assisted by the Secretariat in running the administration efficiently. Likewise, there is a separate Secretariat to the Governor headed by a secretary.

The State legislature consists of two Houses viz. the Legislative Assembly and the Legislative Council. The Legislative Assembly consists of 224 members with one member nominated by the Governor to represent the Anglo-Indian community. The term of office of the members is five years and they are elected by *adult franchise*. The term of a member elected to the council is six years. The council has 75 members of which 25 are elected from the Legislative Assembly, 25 by Local Bodies, 7 by Registered Graduates, 7 by Registered Teachers and 11 nominated by the Governor. The Assembly sessions are presided over by a Speaker who is elected by the Assembly, while the Council elects the Chairman. The Chief Minister is generally the leader of the legislative assembly.

The Constitution also provides for a council of ministers with a Chief Minister as the head to aid and advise the Governor in the exercise of his functions. The Chief Minister who is the leader of the majority party is appointed by the Governor and the other ministers are appointed on his advice. The Council of Ministers which is collectively called the Cabinet, consists of Cabinet Ministers, Ministers of State and Deputy Ministers.

The Chief Minister will exercise powers in guiding, directing, controlling and co-ordinating the activities of other ministers. He combines in himself the roles of the leader of the party, the leader of the House and the leader of the Government. The Chief Secretary is the head of the administrative services. He, together with the Chief Minister will equally share and also assist him in effectively discharging the administrative responsibilities.

The three major branches of the State Government are: 1. the Minister 2. the Secretary 3. the Executive Head of the department. The Minister will decide the policy, the Secretary provides advice, and the Executive head will implement the decisions. Two major functionaries - the Minister and the Secretary are served by the Secretariat Organisation.

At the head of the Secretariat is the Chief secretary to Government who is responsible for the proper and efficient functioning of the administrative set up. He is assisted by Additional Chief Secretary, Principal Secretary or Secretaries to Government who in turn have under them Additional Secretary/Joint Secretary, Deputy and Under Secretaries to Government.

The present set-up of the Secretariat Departments are: 1. Agriculture and Horticulture, 2. Animal Husbandry, Veterinary Services and Fisheries, 3. Co-operation, 4. DPAR 5. Education, 6. Energy, 7. Finance, 8. Food and Civil Supplies, 9. Forest, Ecology and Environment, 10. Health and Family Welfare, 11. Home and Transport, 12. Urban

Development, 13. Housing, 14. Industries and Commerce, 15. Infrastructure Development, 16. Information Technology, 17. Information, Tourism and Youth Services, 18. Irrigation, 19. Kannada and Culture, 20. Labour, 21. Law 22. Parliamentary Affairs and legislation, 23. Public Works, 24. Revenue, 25. Rural Development and Panchayati Raj, 26. Social Welfare and 27. Women and Child Welfare.

Government has established Training Institutes in all the districts of the state, under the Administrative Training Institute at Mysore. There is also the Karnataka Government Secretariat Training Institute at Bangalore, which imparts training to the staff of different categories and levels. Kannada is the official language of the State and Kannada alone should be used in correspondence in all the Government offices except in correspondence with the Central Government, other State Government offices and courts.

Several Steps have also been taken to modernise the administrative system by the introduction of computers in some departments in technical consultation with the Karnataka Government Computer Centre and the National Informatics Centre, Bangalore.

The State Government has appointed Karnataka Administrative Reforms Commission in 2000 with former minister Haranahalli Ramaswamy as its Chairman. The Committee has already submitted its Interim Report in January 2001.

#### Revenue and Expenditure of State Government

(Rs. in Crores)

Particulars	1997-98 (Accounts)	1998-99 (R.E)	1999-2000 (B.E)	% variation 1999-2000 over 1998-99
<b>A. Receipts</b>				
1. Revenue Receipts	10613.39	12168.31	13991.78	14.99
2. Capital Receipts	2011.05	3341.11	3755.58	12.41
<b>Total A : (1+2)</b>	<b>12624.44</b>	<b>15509.42</b>	<b>17747.36</b>	<b>14.43</b>
<b>B. Disbursements</b>				
1. Revenue Expenditure	10890.21	13564.91	15390.97	13.46
2. Capital Expenditure	1682.29	2112.39	2427.66	14.92
<b>Total B : (1+2)</b>	<b>12572.50</b>	<b>15677.30</b>	<b>17818.63</b>	<b>13.66</b>
Surplus (+)/Deficit (-)	51.94	-167.88	-71.27	-

Source :- Statistical Outline of Karnataka 1999-2000, DES, Bangalore.

### List of Chief Secretaries of Karnataka

Sl. No.	Name of the Chief Secretary		Duration	
			From	To
1.	P.V. Rao	ICS	01.11.1956	06.01.1960
2.	N.S. Hiranayya	IAS	06.01.1960	18.11.1960
3.	R.J. Rebello	IAS	18.11.1960	13.11.1962
4.	K. Narayanaswamy	IAS	13.11.1962	91.05.1963
5.	K. Balachandran	ICS	01.05.1963	18.03.1967
6.	K. Narayanswamy	IAS	18.03.1967	25.08.1968
7.	R.N. Vasudeva	IAS	26.08.1968	07.02.1971
8.	R.J. Rebello	IAS	08.02.1971	01.06.1974
9.	G.V.K. Rao	IAS	01.06.1974	19.07.1977
10.	K. Narasimha Rao	IAS	20.07.1977	28.02.1982
11.	R.A. Naik	IAS	01.03.1982	30.09.1983
12.	T.R. Satishchandran	IAS	01.10.1983	31.10.1987
13.	A.B. Datar	IAS	31.10.1987	30.09.1989
14.	K.S.N. Murthy	IAS	01.10.1989	31.05.1990
15.	M. Shankaranarayana	IAS	01.06.1990	04.01.1991
16.	N.K. Prabhakar Rao	IAS	04.01.1991	31.10.1991
17.	T.P. Issar	IAS	31.10.1991	28.08.1992
18.	J. Alexander	IAS	29.08.1992	30.11.1992
19.	J.C. Lynn	IAS	01.12.1992	31.12.1994
20.	S.B. Muddappa	IAS	31.12.1994	30.12.1995
21.	Cecil Naronha	IAS	30.12.1995	31.08.1996
22.	B.R. Prabhakar	IAS	31.08.1996	31.07.1997
23.	B.K. Bhattacharya	IAS	31.07.1997	31.12.2000
24.	Teresa Bhattacharya	IAS	31.12.2000	

### Judicial Administration

*Rajadharma* (the laws defining the powers and duties of kings) influenced the rulers in ancient Karnataka for the administration of justice. This was one of the fundamental obligations/functions of the king. The word "Dushta shikshe, shista paripalana" in old inscriptions indicate that the king was to punish the wicked and protect the law-abiding. Rendering impartial justice that the king was to punish the wicked and protect the litigants were among the sacred duties enjoined on kingship. The administration of justice was an obligatory function of king and in its discharge he was helped by persons well versed in the *Dharmashastras*, and *Smritis*. The ancient texts of Manu, Kautilya, Yajnavalkya etc., had laid down rules regarding the structure and powers of the highest court at the capital and of lower courts established under royal authority.

The rules also provided for the recognition of the Peoples' courts having the power to decide on cases. The qualifications of Judges and the arbitrators had been clearly laid down. The village assemblies and professional guilds also had judicial powers, and disputes were mostly settled amicably. Emperor Bukka himself settling a dispute between the Srivaishnavas and Jains during the 14th century and another Vijayanagar Emperor sending the palace priest to settle a property dispute between the Jains and Brahmins at Lakshmeshwar during the 15th century are the classic examples on legal matters from Karnataka and Vijnaneshwara from Kalyana (11th century) wrote a celebrated commentary on the *Yajnavalkya Smriti* called *Mitakshara* and his elucidation of the law regarding the right of coparceners by birth and other members of Joint Hindu family in respect of ancestral property is accepted as an authority in the whole of India except in Bengal where the commentary of Jimutha Vahana is followed. The Hoysalas followed mostly the system of administration of justice handed down by the Gangas and the Chalukyas. During Vijayanagar days, there were certain specific laws like the law of treason, law of limitation, and the law governing enjoyment of service *inams* etc. During the period of Bahamanshahis and the Adilshahis (Muslim rulers) the king was not only the ruler, but the judge, military leader and the religious head of the State. The Chief Justice was Sadar-i-jahan. He was assisted by *Kazis* and *Ulemans*. The Kotwal was in-charge of capital city. During the period of Hyder and Tipu, the revenue officers were entrusted with judicial functions. There was a 'Sadar' Court at the capital city and *Kazis* in other place.

In the princely Mysore, after the takeover of the administration of Mysore State by the British in 1831 the following courts were established. (1) The Amils, (2) Town Munsiffs (3) Sadar Munsiffs (4) Principal Sadar Munsiffs and (5) The Court of European Superintendents.

By 1862 the Huzur Adalat and the Munsiff's Court were abolished and the judicial hierarchy consisted of the Judicial Commissioner, the Superintendents of Divisions, the Deputy Superintendents and Amildars of Taluks. As regards criminal justice, the Judicial Commissioner, the Superintendents and Amildars of taluk were conferred with criminal

jurisdiction also. Later in 1884 the Mysore Chief Court was constituted and later renamed as The High Court. In British possessions like Belgaum, Bellary areas, the British judicial system pervaded and there were District judges, civil judge and Munsiff for civil matters and the magistrate for criminal matters at the taluk. Village committees dispensed with petty crimes and disputes. There were the High Court, Federal Court and Privy Council in England as Courts of appeal. After unification (1956) the High Court became the highest court of judicature in the State. By the Karnataka Civil Courts Act of 1964 a three-tier system of courts under uniform designation prevailed. They were District Court (district Level); Civil Judge's Court (district or smaller area); and Courts of Munsiff in respect of Civil justice and District and Sessions Judge (District level) and the Judicial Magistrate First Class (other places) in respect of criminal cases. In metropolitan areas, the Chief Magistrate is to be designated as Chief Metropolitan Magistrate.

Besides there are Special Tribunals like Land Tribunals (for each taluk) and the Karnataka Appellate Tribunal, Labour Courts, Karnataka Administrative Tribunal (in Bangalore), Consumer's Redressal Forums, Consumer Courts, Income Tax Tribunal, Educational Tribunal etc. There are Legal Aid Boards, even at the district and Taluk level to provide legal assistance to the needy. The Advocate General is the Chief Legal Advisor and Advocate for the State. There is a Directorate of Prosecutions, functioning with prosecutors, Asst. Public Prosecutors assisting at the taluk level in respect of the Government cases. Lok Ayukta (1986) (formerly Vigilance Commission founded in 1948) looks into the cases against the public servants.

Since 40 per cent of the total number of civil cases arising in the State are from Bangalore, it was considered necessary to have a two-tier system for the purpose of speedy disposal of cases. Accordingly the Bangalore City Civil Courts Act 1980 was enacted. Under the Act in the Metropolitan City of Bangalore the City Civil Court were established.

As on 31-3-1992, there were 24 judges in the High Court, 35 District Judges including Additional Judges, two Judges of Family Courts, 73 Civil Judges, 20 Judges of Small Causes Courts, 209 Munsiffs, 35 District and Sessions Judges, 28 Metropolitan Magistrates, 247 Magistrates in the State in various courts. The total sanctioned strength of staff in the High Court was 1,117 and Subordinate Courts was 10,506. The sanctioned strength of Judicial Officers as on 31.12.1999 was District Judges 137, Civil Judges (Senior Division) 170, Civil Judges (Junior Division) 332, Totalling 639.

As in 1992-93 total number of civil cases for disposal in the High Court was 1,50,510 and of which, 32,808 cases were disposed off and out of 5,562 criminal cases for disposal 3,014 cases were disposed off. Similarly 6,25,689 civil cases were to be disposed off in 1992-93 in all other courts in the State, of which 1,79,139 cases were disposed off. Out of 5,44,242 criminal cases, 2,82,805 cases were disposed off. In addition, in Bangalore City as in 1992-93 1,34,810 civil cases were to be disposed off, of which 48,272 cases were disposed and out of 3,66,311 criminal cases, 1,01,086 cases were disposed. The total of 1106504 cases were pending as on 31.12.1999 of which 658131 was Civil and 448378 Criminal.

The following courts were established in 1999. (1) III Additional District Sessions Court Tumkur; (2) court of Civil Judge (Senior Division) Maddur, (3) Court of Civil Judge (Senior Division) Kundapur and (4) District and Sessions Courts at Gadag, Haveri, Davanagere and Bagalkote.

There are about 37,000 advocates enrolled in the State out of which 5,300 are women. There are the Advocates' Association and Bar Council of India, Karnataka branch, both with their central offices at Bangalore.

### **List of Chief Justices in Karnataka since 1955**

Justice Sri.R. Venkataramaiah	10.4.55 to 15.7.57
Justice Sri.Subodh RanjanDasgupta	25.7.57 to 13.8.61
Justice Sri. Nittoor Srinivasa Rao	29.3.62 to 7.8.63
Justice Sri.H.Hombegowda	7.8.73 to 1.8.69
Justice Sri.A.R.Somanatha Iyer	23.11.69 to 29.12.69
Justice Sri.M. Sadashivaiah	13.12.69 to 16.9.70
Justice Sri.A. Narayana Pai	17.9.70 to 7.6.73
Justice Sri.G.K.Govinda Bhat	7.6.73 to 15.12.77
Justice Sri.D.M.Chandrashekar	23.2.78 to 25.9.82
Justice Sri.K. Bheemaiah	28.10.82 to 11.4.83
Justice Sri.V.S.Malimath	6.2.84 to 23.10.85
Justice Sri.P.C. Jain	28.8.86 to 16.9.89
Justice Sri.S. Mohan	28.10.89 to 7.10.91
Justice Sri.Barucha	1.11.91 to 30.6.92
Justice Sri.S.B. Majumdar	2.7.93 to 13.9.94
Justice Sri.G.T. Nanavathi	28.9.94 to 4.3.95
Justice Sri.M.L. Pendse	28.7.95 to 25.3.96
Justice Sri.S.A. Hakeem	3.5.96 to 9.5.96
Justice Sri.R.P. Sethi	29.6.96 to 6.1.99
Justice Sri.Y. Bhaskar Rao	9.3.99 to 25.6.2000
Justice Sri.P.V. Reddi	25.6.2000 till date

### **Police Administration**

Under the rulers of Mysore, the duties of police were performed by Talwars, Totis, Nirganti, Kavalgars, Kattabidi peons, Halepaikas, Umblidars, Amargars, Hulagavals, Ankamalas and Kalla Kormaras who formed the militia and Patels supervised them, under the rule of Tipu and Poorniah in princely Mysore. Dewan Poorniah introduced Kandachar

Peons for doing the work of police. In 1856, the judicial Commissioner was appointed and he became the ex-officio head of police. In 1879 the Chief Commissioner was in charge of the police. After the Rendition the police administration was under the control of Dewans. Later a police Secretary was appointed. In 1906 the posts of Superintendents and Asst. Superintendents of Police were merged in the general cadre of Assistant Commissioner. Later by 1910, the Police force in Mysore consisted of village police and regular police.

In Madras-Karnataka Area, Talari's (watchmen) in each village was the ancient "Kaval" (watch system). Under this system Talaris were subordinate to Kavalgars who were controlled by Palegars or local chieftains and later by the Patels. In 1904, there was one constable for every six square miles of area, in the Madras Presidency. The head of the department was the Inspector General. Each district was under the District Superintendent of Police. In Bombay Karnataka Area, a regular police force was organised under the administrative control of the District Magistrates by the Bombay Regulation Act XII of 1827. Every district had a Superintendent of police. Earlier there were village militia consisting of talaris and shetsanandis under the supervision of the Patil.

In Hyderabad Karnataka Area there was no well organised police force till 1853. In 1866, a regular police force was raised and placed under the Revenue authorities. In 1869 a special Sadar-ul-Mohawn or Police Minister was appointed for Hyderabad State. After 1948, Gulbarga was the divisional Headquarters comprising four districts of Gulbarga, Bidar, Raichur and Usmanabad. There were two separate Police forces namely the Diwan's police belonged the Nizam's Government and the Jahgir police belonged to individual Jahgirdars, who had been allowed to maintain their own police establishments to administer law and order.

After unification a common Police Act (1963) was implemented. Minor changes have taken place in the administrative set up and as in 1993, in the state the Police set up was as follows;

The State Police consists of 27 police districts 3 Police Commissioners at Bangalore, Mysore and Hubli-Dharwad cities, 112 sub-divisions, 228 circles, 782 police stations, and 297 police out-posts and 7 women police station. The strength of the State Police as in 1991 was 50,009 with 30,434 civil police, 331 civil women police, 11,089 Armed Police 1,661 wireless staff and 6,494 KSRP. The strength state police as on 31.12.1999 was civil police 44,765. Civil Women police 1416, armed police 15,741 wireless staff 1,337 and KSRP 10,439. There are six ranges viz., Central Range at Bangalore, Eastern Range at Davanagere, Northern Range at Gulbarga, Southern Range at Mysore and Western Range at Mangalore.

The Government Railway Police is headed by a D.I.G. of police. There are seven Railway Circles, 18 Railway Police Stations, 25 out-posts.

There are four Police Training Institutes in the State viz, the Police Training College (for officers) at Mysore, Karnataka State Police Training School, Channapatna, Police Training School, Magodu and Armed Police School, Bangalore.

Besides there are Criminal Investigation Department (Forest Cell, Anti-Dowry Cell, etc.), Dog Squad, the Civil Rights Enforcement Wing, Police Wireless and police Motor Transport Organisation and special unit.]

There are Village Defence Parties to guard the villages, to partol for the purpose of preventing crime to protect persons and property in the village and to assist the police when necessary.

Home Guards Organisation also supplement the Police force in case of need. As in 1991 there were 16,122 Home Guards including 500 women Home Guards. As in 1991-92, there were 39 Fire Stations in the State. As on 31.12.1999, 16872 home guards were enrolled including 1,030 women guards as against 900 in 1998 functioning in 17 district of the State. A total of 105 fire stations were functioning in the state as on 31.12.1999.

Presently, the Police Department in the state has four officers of the rank of Director General & Inspector General of Police and one among them will be appointed by the Government to Head the entire department. He is assisted by 11 ADGP's, 26 IG's, 25 DIG's, 57 SP's and a host of Dy. SP's/ACP's, Inspectors, Sub-Inspectors, Assistant Sub-Inspectors and the Constabulary.

### **Prisons**

During the Non Regulation period (1837-1856) there were eight jails in the erstwhile Mysore State. Bangalore Central Jail was constructed in 1863. In 1923, there were one Central Jail, one district jail, and 78 lock-ups in the Mysore State. In Modern Karnataka Area, by 1905 there was a district jail at Bellary and 9 subsidiary jails. By 1926, there were 6 sub-jails in Dakshina Kannada District with one District Jail in Mangalore. In Bombay-Karnataka Area, by 1883 there were jails at each Mamlatdar's office One District Jail was at Kaladgi (later shifted to Bijapur) and subordinate jail at Basavana Bagewadi. There were district jails at Karwar, Dharwad and Belgaum and a subordinate jail at Athani. There was a Borstal school at Dharwad (even now it is there) and a Central Jail at Hindalga near Belgaum. In Hyderabad Karnataka Area, there were jails at Gulbarga, Raichur and Bidar.

At the time of Unification there were six central jails, four District jails, two special jails and two Borstal Schools. Besides there were the agricultural-cum-industrial farms at Bijapur and Khanapur. As in 1992 the following were the prisons in the State. 1) Central Prisons(6) at Bangalore, Belgaum, Bellary, Gulbarga, Mysore and Bijapur with total accomodation of 3,679 prisoners; 2) District Prisons (6) at Mangalore, Madikeri, Raichur, Bidar, Shimoga and Karwar (844 accomodation); 3) District central Sub-jails (7) at Mandya, Chitradurga, Kolar, Hassan, Chikmagalur, Tumkur and Dharwad; (558); 4) Special Sub-Jails at Davanagere and K.G.F.(113); 5) 26 taluk sub-jails under the direct control of Prisons Department and 44 Taluk Sub-Jails under Ex-Officio Superintenddent of Police Depts and Revenue Departments (1,669); 6) One Open Jail at Koramangala, Bangalore (80) and 7) One



jail for youth prisoners (Taruna Bandi Khane) at Dharwad (133). Totally there were 96 jails, working strength 1318 and vacant posts were 474 are. As in 1999-2000 the sanctioned staff strength of the jails was 1,792. The average daily expense per prisoner in the State varied from Rs. 3.05 in 1982-83 to Rs. 10.10 in 1991-92. The daily average expenditure of a prisoner is rupees 16.75 p. (December 1999).

### Local Self Government

From the beginning, Karnataka has imbibed a rich and incessant heritage of self-governing civic institutions keeping in harmony with the changing socio-economic and political conditions in the course of history.

In ancient Karnataka, the tradition of village bodies was very strong. Even in the centralised monarchy L.S.G. bodies were very much prevalent and village assemblies functioned and dealt with local problems. The local bodies were called *Uru* (town), *Okkalu* (residents), *Praje* (Subjects), *Prajesamudaya* (congregation of subject), *Urahadinentujaati* (18 communities of village) etc. In an Agrahara villages, the assembly of *mahajans* (heads of scholarly Brahmin families) served as village councils. They looked after irrigation facilities, took care of temples and other local affairs and settled minor disputes. The villages grouped themselves into *Nadu*, and the assembly was also known as *Nadu*. By about 10th century *Nadu* emerged to the status of modern *Mandal* or Taluk Panchayat. They comprised of heads of constituent villages as their representatives. The association of *Nadus* was known as *MahaNadu* which consisted of the representatives of villages, towns, merchant guilds, officials etc., It can be compared to Modern Zilla Panchayat and it was the highest local assembly. All these assemblies were entrusted with undertaking socio-economic, religious and cultural activities. They had their own financial resources. They also acted as trustees of public properties and endowments. The assembly of the towns which were founded by the enterprising merchants were known as *Nagara* or *Pattana* and the head was known as *Pattana Shetty* or *Pattanaswamy*. Their number depended on the size of the town.

All these local bodies were the creation of the local interest and the Government remained there in an advisory capacity. Government's interference was evidenced when these bodies mismanaged their affairs. The advent of the British rule in India brought several mixed changes in the working of these institutions. Efforts were made to bring back the lost glory of ancient village communities by the Indian leaders like Tilak, Ferozshah Mehtha, Gandhiji and others. The real development of villages in the modern sense started in 1863 by the passing of Village Sanitation Act in many provinces including the princely Mysore. In different parts of integrated areas of Karnataka, LSG. activities were started in different times. The princely State, Mysore, constituted Municipal Committees on an experimental basis in 1862 beginning with Mysore and Bangalore. The local Boards (District Boards and Taluk Boards) for development of rural areas actually came into being for the first time in 1919. In the former Bombay Karnataka areas, local bodies were created under

the East India Company Act 1850. Belgaum Municipal committee constituted in 1851 was the first committee for Bombay Karnataka area followed by Nippani in 1854, Hubli in 1855 and Dharwad in 1856 subsequently Municipalities were constituted under the Bombay District Municipalities Act of 1901. There were Borough Municipalities with wider powers under the Bombay Borough Municipalities Act 1925. In Madras areas, local administration was started with the passing of Town Improvement Act 1865 for Municipalities and Local Fund Act for Local Boards in 1871. Panchayat Boards were first started for single or group of villages under the 1884 Act. In Hyderabad areas, levying of local cess in 1887-88 marked the beginning of L.S.G bodies in the state. In Kodagu area Municipal Committees were established in 1870.

### Changes after 1956

In recent years there is an increase in urban migration. The percentage of the urban population to the total population of the State in 1991 was 30.91 as against 28.89 in 1981. It was well above the all-India level of 25.72 per cent. The number of towns and cities in the State have increased at a rapid rate from 245 in 1971 to 306 in 1991. Likewise the number of cities and urban agglomerations have also increased from 12 in 1971 to 22 in 1991. Municipal Law known as Karnataka Municipalities Act 1964 saw major changes in the Municipal administration in the State. These were comprehensive, uniform and applicable to the entire state. Many more radical changes have been brought into force in the constitution and *modus operandi* of Municipal administration in the State. More seats have been reserved for the SC/ST communities and women. Liberal development grants are given by the State for municipalities for undertaking the works like water supply, sanitation etc., Every Municipality is expected to reserve 18% of its budget expenditure for the ameliorative measures of SC/ST and other weaker sections. There are five categories of urban local bodies in the State viz., 1) City Municipal Corporation (Mahanagarapalike) 2) City Municipal Councils, 3) Town Municipal Councils, 4) Notified Area Committees and 5) Sanitary Boards.

Karnataka Municipal Corporation Act 1976 governs the Municipal Corporations in the State. At present there are six Municipal Corporations in the State viz. Bangalore (1949), Hubli-Dharwad (1962), Mysore (1977), Belgaum (1977), Mangalore (1980), Gulbarga (1981) (Shimoga-Bhadravathi corporation formed in 1992 was later cancelled). The number of City Municipalities is 19, and Town Municipalities 135. There are 15 Notified Area Committees. At present only one Cantonment Board is in existence in the State i.e., Cantonment Board for Belgaum constituted in 1832. It is administered by the Cantonment Act 1924 of the Central Government. As on 31.3.1999 there were 218 municipalities/corporation in the State.

A separate department ( Directorate of Municipal Administration) for Municipal Administration in the state was started in 1984-85 in order to co-ordinate the functional activities of Municipalities in the State. The total number of Municipal employees in the

state was 19,000 in 1993. Since 1984, the State Government has introduced a scheme of awarding cash prize to the best urban local bodies in the State. There are special development City/Town authorities constituted for the development of all important district head quarter towns in the State, coordinating the activities like town planning, water supply, housing sewerage, slums etc. Karnataka is one among the 16 states in the country to abolish Octroi in 1979, which used to be the main sources of Municipal income. the loss of income is compensated by the Octroi grant by the Government.

Karnataka is the first state in the country to impose a ban, by legislation on carrying night soil on head by the Bhangees (scavengers). It was banned as early as in 1973. The scavengers are re-named as *Pourakarmikas*.

### **Panchayati Raj**

During the course of these four decades (1952-1993) radical changes have been brought into practice in the concept, structure, constitution and *modus operandi* of Panchayat Raj institutions in practice in Karnataka by enacting progressive legislations by the successive Governments in power in order to translate the concept of decentralisation and 'Grama Swarajya' and 'Surajya' in to a reality.

After the Reorganisation of the State, in 1960, a unified a comprehensive Panchayat Raj Act known as Karnataka Local Boards and Village Panchayats Act 1959, came into being since 1960. Under this Act, Village Panchayats at the village level, Taluk Development Boards at the Taluk level and District Development Councils for each district were constituted. Under the above three-tier system of administration, only the Village Panchayats and Taluk Development Boards had elected representatives. The District Development Councils were mere advisory bodies comprising of Government officials of the development departments works and schemes were non-official members. In the above system most of the rural development works and schemes were channalised through Taluk Development Boards. Village Panchayats worked under the control of the Taluk Development Boards. This system of Panchayati Raj institutions continued till 1983. In order to have decentralisation in administration, at the Mandal levels, increased people's participation in the process of development etc., the earlier Act of 1959 was replaced by a new Act known as Karnataka Zilla Parishads, Taluk Panchayat Samithis, Mandal Panchayats and Nyaya Panchayat Act in 1983. This Act came into effect from 1985. The Nyaya Panchayats included in the Act did not come into existence.

These new Panchayati Raj institutions came into being in the State in 1987 when the elections were held to these bodies for the first time. Franchise was extended to those completing 18 years of age. According to the new Act the three-tier, inter-linked development oriented institutions known as Mandal Panchayats at the village level, Taluk Panchayat Samithis at the taluk level and Zilla Parishads at the district were reconstituted. In the new system, only Mandal Panchayats and Zilla Parishads were having elected bodies. Taluk Panchayat Samithis remained only as supervisory or co-ordinating

institutions between Mandals and Zilla Parishad and used to work under Zilla Parishads. In the new setup, Zilla Parishads were entrusted with more powers and functions. They almost functioned like the Governments of the districts. Most of the development activities of the state were executed or carried through Zilla Parishads and Mandals. Nearly 80% of the total development expenditure was earmarked to Zilla Parishads. Except major and medium irrigation works, all other developmental works were entrusted to Zilla Parishads. Mandals had separate powers to carry out certain specified (27) developmental works according to local needs. The impact to decentralised administration of Zilla Parishads, Mandal Panchayats was very much felt in rural areas specially in the improvement of attendance in primary schools, of both students and teachers and doctors in the rural hospitals and field staff of other departments as revealed by the evaluation committee on the working of Zilla Parishads and Mandal Panchayats.

The area of operation of a Mandal was fairly larger, compared to the earlier village panchayat. Generally, a Mandal comprised a village or groups of closely associated villages covering a population between 8,000 to 12,000. Before their abolition in 1992, there were about 2,500 Mandals in the state. The term of office of the elected members was 5 years. There was a provision for the nomination of members from the backward communities to the council of a Mandal. In addition to 18% reservation of seats for the SC/ST communities, there was provision for reserving 25% of the total seats in all categories for women. This system of local administration continued for the period of 5 years till 1992. The total number of elected members of Zilla Parishads were 887 and of them 175 were from the SC/ST communities., and 211 women. The total number of elected members of 2,469 Mandal Panchayats were 55,188, and of them 11,968 were from SC/ST communities and 14,025 women members of all categories.

### **Karnataka Panchayati Raj Act 1993**

In order to further strengthen the functioning of rural Panchayati Raj institution in the state by decentralisation at the appropriate level and to improve the quality of functioning, to provide social justice by means of extending additional reservation facilities to SC/ST communities (23 percent), women and other backward classes (33 %) etc., the new Panchayati Raj Act was introduced. The New Act also contemplates the reservation of seats for the chair persons by rotation.

The new Act has come into force from 10th May 1993. It is a comprehensive enactment to establish a three-tier Panchayati Raj system in the state with elected bodies at the Village, Taluk and District levels. It is enacted keeping in view of the 73rd Constitution Amendment relating to Panchayats. It ensures greater participation of the people and more effective implementation of rural development programmes. Panchayat at the taluk under the new Act, there will be a Grama Panchayat for a village or group of villages, at the Taluk level, and the Zilla Panchayat at the district level. All the three institutions will have elected representatives and there is no provision for nomination by the Government

to any of these councils. Karnataka is the first state in the country to enact new Panchayat Raj Act incorporating all provisions of 73rd Amendment to the Constitution. In accordance with the provisions of the present Act, the elections to 5,645 Grama Panchayats were held in December 1993 for nearly 79,865 seats of which 23,454 were women, whereas elections to Taluk Panchayats and Zilla Panchayats were held in March 1995. The number of members elected to Z.illa Panchayats and Taluk Panchayats are 919 and 3,340 respectively. Over two crore voters have exercised their franchise in these elections. In 1999-2000 there were 5,692 Gram Panchayat with a total number of 73,547 (30,155) Taluk Panchayats 3,340 (1345) and zilla Panchayat 919 (335) in the state. Figures in bracket indicate women members).

In the new Act provision has been made for setting up a District Planning Committee, Finance Commission and Permanent Election Commission.

It is reported that in these elections women will secure 40% representation in Taluk Panchayats and 36% in Zilla Panchayats, the SC and ST communities getting 18% and 5% seats respectively. The backward castes in A category will get 27% reservation in T.Ps and 26% in Z.P.s. The backward class in B category will get 7% in both the Z.Ps and T.P.s and general category will get 40% reservation in both bodies. To facilitate early elections to Gram Panchayats the Karnataka Gram Panchayat Act (2nd Amendment) – Ordinance 1999 was promulgated to amend section 4 & 5 of the Act on 28.1.1999. That State Government has also framed the Karnataka Zilla Panchayat (business) Rules 1998 pertaining to monthly allowance to member, annual grant to Gram Panchayat and convening Gram Sabhas in every village. To make Panchayat Raj institution more accountable and responsive, government has recently introduced the Panchayat Jamakhandi.



## Chapter X

# EDUCATION AND SPORTS

**A**ncient educational institutions in the form of *agraharas*, *brahmapuris*, *ghatikasthanas* and *mathas* existed in the state following traditional methods of teaching. *Mathas* were residential schools where the teacher and the taught lived together. *Agraharas* and *brahmapuris* were settlements of scholars and separate arrangements existed to teach the three R's in these villages. *Ghatika* was meant for conferring degrees or certifying scholarships. Rich families engaged teachers to teach their children. There also grew institutions like *Koolimatha*, *Salimatha* or *Odisuvamatha* where a teacher ran a school either in his house or in a public place like temple or choultry and was paid in cash, or kind during the harvesting season. Reading, writing and arithmetic were taught and much of the learning was memorising by repeating the sentences or verses collectively. The rod played a major role in disciplining pupils including those who were slow to learn.

Vocational learning was mostly hereditary. A boy who was to pursue the career of an accountant or government servant was sent to a shop or government office after mastering the three R's. He was to be a probationer for long years. Government servants initiated their own young wards into their offices, and were later absorbed into service. Administrative service was also hereditary before the advent of the British, for long even after. The offices of a Shanbhag (village accountant) is a case to remind the old practice.

The beginning of modern education could be traced to the establishment of Free English School at Mysore in 1833 by the palace of Mysore (for the erstwhile Mysore area); of the two Marathi Vernacular schools at Dharwad and Hubli in 1826 by the Bombay Native School and School Book Society respectively (for the Belgaum area); of schools in Mangalore, Udupi and Bellary in 1838 (for the Madras Karnataka area); of the Darul Uloom at Gulbarga in 1853 by Sir Salaarjung (for the Gulbarga area); of the two Anglo-Vernacular Schools at Madikeri and Virajpet and a Kannada School at Ponnampet by the Government in 1934 (for the Kodagu area). Christian Missionaries played a major role in starting schools and imparting English education during the 19th century. The Education Integration Advisory Committee constituted by the State Government in 1956 evolved a uniform system of education for the entire state. For the year 1999-2000 the rate of literacy among males was 67.25% and among females it was 44.34%. The total literacy rate was 56.04%.

The Kindergarten system of education or the pre-primary education that served as a stepping stone for primary education had become popular as early as 1900. Children who had learnt to speak were admitted to these schools without much consideration of their age. Pre-primary education was generally imparted in nursery schools attached to a few primary schools. In erstwhile Mysore State it was done mostly by private agencies. In 1957 government constituted a committee to study the question of pre-primary education. As per

the recommendations of the Committee, this education came to be imparted systematically in pre-primary schools. During 1979-80 there were 3,118 pre-primary schools in the state with 1,90,737 children in them. Under the Centrally- sponsored Integrated Child Development Services, non-formal pre-school education is given to children below six years of age. For 1999-2000 in the 175 taluks of the state 28,85,979 beneficiaries are covered. In order to encourage community support, a school adoption programme called "Dattu Yojane" has been introduced in government schools, recently. "The Samudayadatta Shale" programme brings schools closer to the community.

In the present system of pre-primary education, children who have attained 3 years and ten months of age are eligible for admission to Lower Kindergarten (L.K.G.), so that by the time they complete their Upper Kindergarten (U.K.G.), having attained 5 years and 10 months of age, they become eligible for admission to the first standard.

Primary education was recommended to be an integrated course of seven years by the Education Integration Advisory Committee. The four years of primary and four years of Middle School education was combined to form an integrated course of 8 years. A common syllabus was framed and introduced in a phased manner beginning with 1959-60, so that by 1962-63, all primary schools in the State had a uniform curriculum and syllabus. As per this revised syllabus, in addition to the inclusion of three languages as per the three-language formula, Kannada was introduced as a compulsory subject from the third standard to the sixth for the non-Kannada pupils. While Health education formed a part of science syllabus, moral education was made compulsory and physical education syllabus was strengthened. This revised syllabus was implemented from 1974-75.

During 1955-56 there were 22,803 primary schools (including Senior Primary and Basic Schools) with a total student strength of 19,17,258. By 1981-82, the total number of Primary Schools was 35,549 with a total enrolment of 51,73,621 children in them. They were taught by 1,17,686 teachers of whom 1,05,751 were trained and the rest, untrained. In the next decade the number of schools was 40,345 with a total of 71,90,963 children who were taught by 1,35,609 teachers of whom 1,30,987 were trained. During 1993-94 there was a total of 41,684 schools, where a total of 77,56,598 children studied. The total number of teachers for the said years was 1,45,068 of whom 1,39,331 were trained.

The total number of Lower Primary schools for the year 1999-2000 was 24,042 which included 22,154 government, 378 aided, 1,519 unaided ones. For the same year, the total no. of Higher Primary schools was 25,570 of which were 20,814 government, 2,058 aided and 2698 unaided schools. For the above said total of 49,612 schools, there was a total of 2,09,839 teachers of whom 1,73,120 were in government, 18,250 in aided and 18,467 in unaided schools. The total no. of children in the said schools for the same year was 1,73,340. The enrolment rate from I to VII standards was 82.96%, the drop-out rate was 40.46%.

**Operation Black Board ( OBB )**

The Centrally Sponsored Operation Black Board scheme was launched in the state from the academic year 1997-98 in a phased manner, providing for – additional teachers in single teacher schools, teaching learning equipments and construction of additional class rooms. A total of 14,350 single teacher schools were provided with an additional teacher and 2,769 Lower Primary Schools with more than 100 pupils on rolls were given with a third teacher and a third class room. Under the extended OBB scheme 17,718 Primary Schools were given with an additional teacher's post each and Rs. 40,000 grant per school was released for teaching and learning equipments. During 1999-2000 a total of 1,086 LPS with more than 100 pupils on rolls were provided with a third teacher and 3,788 classrooms were constructed.

**Public Examination for standard VII**

With a view to improve standard of education and to introduce greater accountability among teachers, public examination system was introduced for the VII standard from the academic year 1996-97. During the year 1998-99 total of 7,77,818 students appeared for the same of which 6,97,522 (89,68%) passed.

**TCH/B.Ed. Course admission centralised**

In order to improve the quality in the intake of teachers, centralised admission system based on merit-cum-roster was introduced for the TCH and B.Ed. Courses from the academic year 1997-98.

**Mobile Schools**

To provide educational opportunities to slum children and drop-outs, Mobile School System was started on an experimental basis during 1999-2000 with the help of KSRTC. The objective of the system was to bring such children to the main stream of learning and to inculcate school going habit in them. During the year, four Mobile Schools were started in four buses which were converted as classrooms, with a total expenditure of 5.15 lakhs, and about 180 children were benefited from the scheme.

In the princely State of Mysore, the first Government High School was started in 1858 in Bangalore, affiliated to the University of Madras. Later the Mission schools at Tumkur, Shimoga and Hassan and the Maharaja's School in Mysore were taken over by the Governmnet. The Secondary Education consisted of two stages-Middle School stage and High School stage. The District Boards started a number of High Schools after independence. In 1882 there were four High Schools in Belgaum area and 2 High Schools in Madras area. The A.V. School in Gulbarga was upgraded into a High School in 1875, and the Central School at Madikeri was raised to the status of a High School in 1879.

After Reorganisation, the term Secondary Education gained a different connotation. While in Old Mysore it applied to schools with a three-year course after the eighth standard,



in Bombay Karnataka area schools had a four year course after Seventh Standard or Mulki schools. In Dakshina Kannada there were Elementary (till 5th Standard), Middle (till eighth standard) and High school till 11th standard. Similar was the case in the Hyderabad area. By the time of Reorganisation, there were 537 Secondary Schools in the State (including two Military schools) with a total strength of 1,25,645 students. A new curriculum was introduced for secondary education all over the state in 1960 and a uniformity in pattern, syllabi and examination was achieved by 1963. S.S.L.C. was uniformly made a course of ten-years duration with the eight, ninth and tenth being treated as High School classes.

The scheme of conversion of High Schools into Higher Secondary Schools with the introduction of standard XI was implemented from 1964-65, upgrading 50 schools all over the state. This scheme of XI standard was drawn to a close when the I year P.U.C. was introduced which became a two year course in 1972.

During 1981-82, the total No. of High Schools was 2,416 and the number of children rose to 7.22 lakh. The total number of teachers working in High Schools during 1981-82 for the whole state was 22,407. For the year 1993-94, a total of 5,732 High Schools existed in the State of which 1,488 were Government Institutions, 2,111 were aided by the government, 2,106 were unaided and 27 came under Local Bodies. There were in all 46,527 teachers in them whose number respectively for the above category of institutions was 12,972 (with 1,314 SC's and 361 ST's), 21,392 (with 1,254 SC's and 441 ST's), 11,941 (with 700 SC's and 218 ST's) and 222 (with 220 SC's and 2 ST's).

The following are the details of High School students who appeared for the S.S.L.C. Examination for two years:- For the 1992 April Session, for a total of 5,06,998 (3,27,748 boys and 1,79,250 girls) who appeared, a total of 2,46,978 (1,51,287 boys and 95,691 girls) or 48.71% passed. For the October session of the same year, the number of students who took the examination was 1,52,264 (1,08,954 boys and 6,544 girls) or 12.68%.

During the 1993 April session, for a total of 4,09,141 candidates who took the examination under the new scheme, 2,52,109 were boys and 1,57,032 were girls. Among them, a total of 2,10,431 (1,22,655 boys and 87,776 girls) or 51.43% passed. Under the old scheme, for a total of 1,22,552 (89,817 boys and 32,735 girls), a total of 29,396 (20,141 boys and 9,255 girls) or 23.98% passed.

For the Supplementary examination conducted during 1993 October, the following were the details of candidates: New Scheme-total appeared was 97,702 (67,905 boys and 29,867 girls). Total passed was 15,002 (9,829 boys and 5,173 girls). The percentage of passes was 15.34. Old Scheme-Total appeared was 68,242 (51,522 boys and 16,720 girls). Total passed was 7,684 (5,524 boys and 2,160 girls). Total percentage of passes was 11.25.

During 1999-2000 the total no. of High Schools rose to 8,248 in which were 2,547 government, 2,649 aided and 3,059 unaided schools. The total number of teachers in them was 78,888 of whom were 3,005 in government, 29,869 in aided and 18,114 in unaided High Schools.

The total no. of children in standard VIII was 6,88,662 (3,84,026 boys and 3,04,636 girls); in standard IX it was 6,19,065 (3,44,557 boys and 2,74,508 girls) and in standard X it was 4,63,608 (2,62,080 boys and 2,01,528 girls), totalling 18,48,335. For the April 2000 SSLC Examination, a total of 3,76,314 students (2,03,896 boys and 1,72,418 girls) appeared and a total of 1,95,420 (1,08,166 boys and 87,254 girls) passed.

During 1999-2000, a total of 341 unaided High Schools were sanctioned. For the government High Schools started during 1998-99, one post of HM one post of group D employee and 434 posts of Asst. Masters were sanctioned. 500 posts of Hindi teachers were sanctioned by a the central government for them. During the same year 961 music, dance and drawing teachers were recruited.

### **Sanskrit Education**

For the year 1999-2000 there were 264 aided and 123 unaided Sanskrit Pathashalas in the state, with three government, eight aided and nine unaided sanskrit colleges imparting Sanskrit education.

### **Music Education**

There were 34 aided and 75 unaided special Music, Dance and Drama institutions in the state with a total of 1,762 students in them.

### **Awards**

During 1999-2000, 20 primary school and 10 High school teachers were honoured with state awards and nine primary school and four high school teachers were honoured with national awards.

### **Recruitment**

A total of 1,168 probationary Headmasters for High Schools were recruited by the KPSC during 1999-2000.

### **Computerisation**

With a view to computerise the activities of the education department, computers have been provided to BEO's and DDPI's of all districts. A total of 75 BEO's have been given with computers and a Computer Training Centre was opened at the office of the CPI, Bangalore to train the officials in computers. During 1999-2000, 11 officers and 219 officials have been trained.

### **Teachers' Education**

In the erstwhile State of Mysore, steps were initiated as early as 1860 for the training of teachers with the establishment of a training school at Mysore. A Normal School was also started at Dharwd in 1867. It later became a post-matric training college. With the introduction of Hobli School System in erstwhile Mysore State, Normal Schools were

established at all district headquarters (During the great famine of 1877, these schools were closed). One such school was established at Mysore in 1893 with Upper Secondary and *Pundit* courses. Two Normal Schools were opened in 1897 at Kolar and Tumkur followed by three more at Bangalore, Hassan and Chitradurga. The Wesleyan Mission started a private school at Tumkur. Teachers' training classes were started for women at Maharani's College, Mysore in 1888. The Zanana Normal School of Urdu Teachers was begun at Mysore in 1916. The first course for training Middle School men teachers was started in Mysore in 1913 and a similar one for women was started in 1928 at Maharani's Women Training College. By 1931-32, there were eleven training institutions in the State of which nine were government ones, one aided and the other, unaided. Of these eight were for men and three for women. These institutions imparted four kinds of training courses, viz., Undergraduate training course, Upper Secondary Training Course, Lower Secondary Training Course (all three of one year duration) and the revised Vernacular Training Course of two years' duration. The last three courses were revised in 1993 and a single course of Vernacular training extending over a period of three years was begun. It was reduced to two years duration in 1950 and was re-named as Teachers' Certificate Higher Course of one year duration. By 1956, there were seven TCH and Seven TCL institutions in the State with a strength of 2,431 men trainees and 983 women trainees. For the year 1999-2000, there were 136 TCH institutions with a strength of 9,982 trainees in them.

For the year 1992-93, there was a total of 49 Pre-primary TTI.s that comprised five government, one aided and 43 unaided institutions. There was a total of 1,365 trainees in them for the same year. They were taught by 86 Teacher-educators, 25 craft instructors, 12 music teachers, 11 physical education instructors and 29 part-timers, for the said year.

The total number of primary TTI.s for 1992-93 was 126 of which, were 34 Government, 41 aided and 51 unaided ones. A total of 6,571 trainees for the I year and 13,186 trainees for the II year were trained in them. The total number of staff was 1,238 that included 636 teacher educators, 108 physical education teachers, 39 music teachers, 103 craft teachers and 147 part-timers for the said year.

During 1999-2000 from the 136 TCH and 28 pre-primary Teacher Teaching Centres, a total of 9,986 candidates appeared for the examination and 7,995 out of them or 78% passed.

*Training of Graduate Teachers* : Before 1914, there was no provision in the State for the training of graduate teachers. They had to go to the Teachers' College at Saidapet, Madras for L.T. course. A training course for graduate teachers was started in the Normal School, Mysore in 1914. The Mysore University which was started in 1916 introduced the B.T. degree in 1925. In 1947, a Teachers College with practising school was started by the Government in Mysore. The faculty of education was begun in the Mysore University in 1952 and in 1956 M.Ed course was also introduced. By the time of re-organisation of the state (1956) there

were seven colleges of education in the state-one each at Mangalore and Mysore, with a total of 616 students in all, that included 121 women. By 1968, the total number of colleges went up to 17, including the Regional College of Education, Mysore. The total number of colleges was 48 in 1982, affiliated to the different universities of the state and had a total student strength of 4,687 trainees.

During 1992-93, the total number of B.Ed. Colleges in the state was 64 of which, eight were Government institutions (that included The Regional College of Education, Mysore), 16 were aided institutions and 40 were unaided ones. The total number of trainees for the said year was 801 (540 men and 261 women) in Government institutions; 1,551 trainees (737 men and 814 women) in aided institutions; 4,172 trainees (2,611 men and 1,561 women) in unaided institutions. A total of 680 staff members including 64 Principals, 153 Readers, 387 Lecturers and 43 part-timers worked in these institutions for the said year. For the year 1996 there are 63 B.Ed. Colleges and 129 Teacher Training Institutions in the state with an intake capacity of 7,260 TCH and 6,400 B.Ed. seats. For 1997 the no. of B.Ed.colleges rose to 66 and teacher Training Institutes to 132.

### **Pre-University Education**

The scheme of one year Pre-University education was introduced in the state in 1957 as a substitute for the old intermediate (which was a two year course after SSLC class). PUC was made into a two-year course in 1972, after the Board of Pre-University Education (presently called the Department of Pre-University Education) was established 1970. Schooling was reduced to 10 years (till SSLC). The two-year PUC is now being imparted in PU Colleges that are managed by Government and private bodies. The Composite PU Colleges, the Independent PU Colleges and the PUC in the First Grade Colleges-all these impart this course of education. Steps have been taken to separate PUC classes in First Grade Colleges and to attach them to the Department of PU Education.

For the year 1994-95, there was a total of 1,893 PUColleges in the state of which, 220 (184 private and 36 Government) were attached to First Grade Colleges; 313 (295 private and 18 government) were Independent Colleges; 1,360 (838 private and 522 Government) were composite PUColleges.

From all the above Institutions, a total of 3,58,225 students appeared for March '93 P.U.C examination of which 1,39,110 (38.83%) passed. For the April '94 session, for a total of 3,30,700 students, 1,24,462 (37.64%) and for the October session of the same year, for a total of 1,43,593 that appeared, 38,432 (26.76%) students passed. This P.U. course with science subjects qualifies a student to appear for the Common Entrance Test for medical and engineering degree courses. This test has been started from 1986.

During 1999-2000 the no. of PU colleges rose to 2,042 as against 1893 in 1994-95. The no. included 682 Govt.718 private aided and 642 private unaided PU colleges. In 1999-2000, a total of 3,17,687 students were in the I PU and 3,22,668 were in the II PU.

The total no. of students who appeared for the 1999 April examination was 2,20,122 (1,26,027 boys and 94,095 girls) and the total no. of passes was 1,05,390 (51,948 boys and 53,442 girls).

### **Revaluation of Answer Scripts and Issuance of Photo Copies**

For the first time in the history of PU education, the revolutionary system of issuing photo copies of second PU valued answer scripts to students in four science subjects was introduced during 1997-98 and the same was extended to other subjects also in a phased manner.

### **Collegiate Education**

The first ever institution of higher education in the entire Karnataka territory was the Second Grade College started by the Madras Government at Mangalore in 1869. The Government High School of Bangalore was upgraded into a College in 1870 and was named 'Central College' in 1875. The Mysore Maharaja's High School and the Shimoga Government High school prepared candidates for the F.A. examination of the Madras University in 1879. The Jesuits started St. Aloysius College at Mangalore in 1879 and the St. Joseph's College at Bangalore in 1882. The Maharaja's Second Grade College founded in 1864 at Mysore was upgraded into a First Grade College in 1902 and was affiliated to the Madras University. The Mysore University was established in 1916, and the First Engineering College was begun by this University in 1917 at Bangalore and a Medical College in 1924 at Bangalore. Subsequently it was shifted to Mysore in 1930. The Mysore Maharani's College, the only college for women in the state then, (1901) was upgraded into a First Grade College in 1920. Dharwad had The Karnatak College started in 1917 and Lingaraj College was started by the K.L.E. Society at Belgaum in 1933. The National College and The Basappa College were started by private agencies at Bangalore in 1945. By 1956, the erstwhile Mysore State had 14 First Grade Colleges, 14 intermediate colleges and 14 professional colleges.

The Directorate of Collegiate Education was established in 1960 to bring about uniformity in the administration of colleges of general education, By then, there was a total of 42 colleges of which 17 were Government and 25 were private, with a total of 27,338 students.

During 1994-95, there was a total of 679 degree colleges in the state. Among them were 136 Government Colleges, 267 Private Aided Colleges and 276 Un-aided Colleges. The total number of students in them for 1992-93 was - 4,81,920 (3,02,711 boys and 1,79,209 girls) and for 1993-94, the total was 4,36,128 with 2,70,536 boys and 1,65,592 girls.

Regional Offices of Collegiate Education were established at Bangalore, Dharwad and Mysore in 1980, Mangalore and Gulbarga in 1985 and Shimoga in 1996.

During 1999-2000 the total no. of degree colleges was 935 (151, government, 300 aided and 484 unaided). The total no. of students in them was 4,23,565.

The following table gives the University-wise details of degree colleges in the state.

Sl. No.	District	Govt. Colleges	Pvt. Colleges		Law Colleges	
			aided	unaided	aided	unaided
<b>Bangalore University</b>						
1.	Bangalore Urban	11	44	111	-	20
2.	Bangalore (R)	07	04	07	-	-
3.	Tumkur	10	04	20	-	02
4.	Kolar	11	05	05	-	01
<b>Mysore University</b>						
5.	Mysore	08	13	21	01	03
6.	Chamarajanagar	03	03	05	-	-
7.	Mandya	05	07	09	-	02
8.	Hassan	10	05	07	01	01
<b>Kuvempu University</b>						
9.	Shimoga	01	09	09	01	-
10.	Chitradurga	07	07	17	-	02
11.	Davanagere	03	09	13	-	01
12.	Chikmagalur	07	04	04	-	01
<b>Mangalore University</b>						
13.	Dakshina Kannada	07	19	18	-	04
14.	Udupi	07	13	11	-	02
15.	Kodagu	01	03	03	-	-
<b>Karnataka University</b>						
16.	Dharwad	02	16	22	01	03
17.	Gadag	04	09	09	-	01
18.	Haveri	04	08	06	-	01
19.	Uttara Kannada	04	13	07	01	02
20.	Belgaum	03	28	30	01	05
21.	Bijapur	-	14	14	-	02
22.	Bagalkot	02	12	12	-	01
<b>Gulbarga University</b>						
23.	Gulbarga	10	14	25	02	-
24.	Raichur	04	05	06	-	01
25.	Koppala	04	03	02	-	-
26.	Bellary	05	07	07	-	01
27.	Bidar	01	10	17	-	01
<b>Total</b>		<b>150</b>	<b>292</b>	<b>427</b>	<b>8</b>	<b>58</b>

### **University Education**

The Mysore University (1916) was the First University to be started in Karnataka. This was followed by the Karnatak University (1949), the Bangalore University (1964), the Mangalore University (1980), the Gulbarga University (1980) and the Kuvempu University (1987). The two Universities of Agricultural Sciences- the one at Bangalore (1965) and the other at Dharwad (1986), cater to the needs of students aspiring after specialisation in the different branches of agriculture. Recently in 1991 Kannada University at Hampi has also been started to promote the study of the Kannada language, art and culture. The Manipal Academy of Higher Education (MAHE) has been granted the status of a Deemed University from 1993.

There are other centres of higher learning like the Indian Institute of Science, Bangalore (1911), Indian Institute of Management, Bangalore (1972), the National Law School of India University (1987) Bangalore and Institute for Social and Economic Change, Bangalore (1972).

### **Medical Education**

The erstwhile State of Mysore started the Medical School in Bangalore in 1917. It was under the control of a senior surgeon of the Medical Department. A training of four years duration prepared candidates for the Licentiate in Medical Practice (LMP) course. The first Medical College preparing students for the MBBS Course was begun in 1929 at Bangalore. These two institutions were run for the next six years with a common teaching staff. The Medical College was shifted to Mysore in 1930 and the school remained in Bangalore and was subsequently closed in 1956. The Mysore College was expanded in 1940.

The Bangalore Medical College was formed in 1954. Later the Kasturba Medical College at Manipal and the Karnataka Medical College at Hubli were started in 1953 and 1956 respectively. By 1980, there were in all 12 Medical colleges in the state, out of which four were Government and eight were private. The Government Medical College, Bellary (1961) has been granted autonomous status in 1995. The All-India Institute of Mental Health and Neuro Sciences at Bangalore offers P.G. Courses in M.D. (Psychiatry) and M.Ch (Neuro-Surgery). The All India Institute of Speech and Hearing located at Mysore makes use of non-clinical facilities in the Departments of Anatomy, Physiology and Pathology at Mysore Medical College as well as clinical facilities in the Departments of ENT and Neurology at the Mysore K.R. Hospital.

For the year 1993-94 there were 19 Medical Colleges of which four were Government institutions. The number of Dental Colleges was 41, of which one was a Government institution. A total of 61 Pharmacy colleges including the Government College of Pharmacy at Bangalore and the 11 Nursing Colleges including the Government Nursing College, at Bangalore were working in the state. In addition to them, there are Ayurvedic, Homeopathic and Unani Medical Colleges which have been offering degrees in the respective fields of medicine. There are 16 colleges of Ayurvedic medicine in the state of which the College of

Indian Medicine Mysore (1908) and the Jayachamarajendra College of Indian Medicine, Bangalore (1967) are run by the government. Thirteen colleges are run by private managements of which those at Belgaum, Bijapur, Hubli, Udupi and Dharmasthala are among the earliest. There are three Homeopathic Colleges in the State offering L.C.E.H. and G.C.E. degrees. The only Unani College of Medicine (1975) is located at Bangalore and offers B.U.M.S. Degree of Five and a half years.

### **Rajiv Gandhi University of Health Sciences**

Rajiv Gandhi University of Health Sciences was founded in 1996 with the objective of upgrading standards of teaching, research and dissemination of knowledge in all branches of health sciences.

During the academic year 2000 a total of 258 institutions offering different health science courses spread all over Karnataka are governed by this University. These institutions impart knowledge in the faculties of Medical, Dental, Ayurvedic, Unani, Homeopathy, Nursing, Planning Physiotherapy, Naturopathy, Yogic Sciences, Speech and Hearing and other allied health science courses. In addition, two more new courses BSC - Operation Theatre Technology and BSC - Anaesthesia Technology have been started in some colleges.

The university has under its jurisdiction, 22 Medical, 40 Dental, 46, Pharmacy, 34 Nursing, 39 Physiotherapy, 43 Ayurvedic, three Unani, 13 Homeopathic, One Speech and Hearing Colleges under its jurisdiction. It offers medical Lab Technology course in six institutions, Radiotherapy in four institutions, Hospital Management in two institutions and Naturopathy and Yogic Sciences in three institutions, spread in different parts of the state.

### **Technical Education**

The imparting of technical education as a part of curriculum made its beginning in the latter part of the 19th century, when the first technical institute, the School of Engineering was established in 1862 at Bangalore, affiliated to the Madras University. Rao Bahadur Arcot Narayanaswamy Mudaliar established a technical institution in the Civil and Military Station at Bangalore in 1873 where students were prepared for lower services of the P.W.D. The Industrial School, Dharwad was established in 1873. An Industrial School at Hassan and another at Mysore were established in 1889 and 1892 respectively. The one started at Bidar in 1905 taught Bidri work. The Mechanical Engineering School was started in Bangalore in 1913. These schools were later brought under the control of the Department of Industries and Commerce. In addition to the two major Industrial Schools-Chamarajendra Technical Institute, Mysore and the Weaving Institute of Bangalore, there were Government Industrials Schools at Mysore, Hassan, Chickmagalur, Shimoga, Chitradurga, Chikballapur, Dodballapur, Sagar and Nelamangala. The Zanana Home Industrial Institute, Channapatna was the only grant-in-aid institute imparting industrial training for women. At the time of integration, there were 14 industrial Schools in the erstwhile Mysore area. The Mysore Government constituted a Council of Technical



Education and a syllabus Board in 1952. The D.P.I. was appointed Ex-Officio Director of Technical Education in Mysore. The State Board of Technical Examination also came into being in 1952 and awarded Diploma from 1953-54.

*Degree Colleges:* The first Engineering College was started by the Mysore Government in 1917 at Bangalore. After 1946, three more colleges were started - one by Government and two by private agencies. By the time of Integration of the State, there were totally five engineering colleges (two government and three private) in the State. They were, the Government Engineering College, Bangalore, Govt.BDT Engineering College Davanagere, BMS College of Engineering, Bangalore, National Institute of Engineering, Mysore and BVS College of Engineering, Hubli (all private). By 1993-94 there was a total of 47 Engineering Colleges in the State of which were four Government institutions, nine were aided and the rest unaided. The large number of professional institutions in Karnataka attracts students not only from the several parts of India but also from foreign countries.

In 1999, The Vishveshwaraiah Technological University was established at Belgaum. For the academic year 1999-2000 there were 77 government aided and private Engineering Colleges and 185 government, aided and private Polytechnics, six Junior Technical Schools, and three degree level aided Fine Arts colleges under the purview of the department of technical education. During the said academic year six private Engineering Colleges in various places of the state and one Government Polytechnic exclusively for women at Gulbarga were started.

During 1996-97 government started polytechnics at Koppal, Soraba, Kushtagi, Bagepalli and SKSJT Eve. Institute at Bangalore. The intake capacity in all engineering colleges is a total of 24,354 per year : Polytechnics - total 32,212; Junior Technical Schools total - 360 and Fine Arts colleges total 160.

During 1999-200, eight government and aided Polytechnics were given autonomous status, 12 Engineering Colleges and 10 Polytechnics have been selected as "Centres of Excellence".

*Legal Education:* The first Law College in Karnataka was started at Belgaum in 1939 by the Karnataka Law Society, a private body and the name of the college was Raja Lakmangauda Law College. There were four Law Colleges in the state at the time of reorganisation-two in Mysore area and two in Belgaum area with a total strength of 758 that included two women. The course was of two years duration, leading to the B.L.Degree of the Mysore University and the L.L.B Degree of the Karnataka University. The latter also conducted examination for the Master Degree in law (LLM). By 1968, the number of colleges went upto 13 with the region-wise break-up as, eight in Mysore, three in Belgaum (including the University law College of Dharwad), one each in Mangalore and Gulbarga. The total enrolment in all the above colleges was 4,080, including 147 women. By 1981-82, there was a total of 32 Law Colleges in the State including the two University Law Colleges-one at Bangalore and the other at Dharwad. The rest were managed by private agencies, where classes were conducted either in the morning or in the evening to facilitate employed students.

The Law course which was to be previously taken up after graduation was changed and the Bar Council of India proposed a drastic change bringing legal education at par with the other professional courses. It was made a five year course to be taken up after the +2 course, common to students all over the country. However the old system still prevails in a majority of the law colleges. The National School of Law University is a prestigious institute in Bangalore, established in 1988.

For the year 1999-2000 the number of Law colleges was 68 with 23,302 students in them (including the two University Law colleges).

### SPORTS

Karnataka holds the third place in the sports map of India to-day. Through the paintings of pre-historic period we learn that sports and games were the favourite pastime of people in the state. Records and evidences are available to us from the Kadamba times. Gambling and dice playing were among the means of recreation. *Manollasa*, a 12th century Sanskrit encyclopaedia gives a long list of games like playing at the swing, at sands, and in groves, boat race, dice, animal fights etc. Several indigenous games played by boys and girls in groups, became popular. They included *Kalla-police*, *Koti-Koli*, *Toptiyata*, Cat and Rat, Run for Supper, Sun and Shadow, *Upparapatte*, *Karnamuchchale* (hide and seek), *Kuntebille*, *Gultorio*, *Kabaddi*, *Marakoti*, *Bugariyata*, *Haavuchelu*, *Chinni-dandu*, horse-race, sackrace, potato race and the like. Indoor games included *Gajjigata*, *Chess*, *Ganjipa* (a kind of card game), *Adagulimane*. *Swargarohana* (snake and ladder), Chess etc. Krishnaraja Wodeyar III had written a book on the game of chess.

Of late Physical Education is being imparted on scientific principles. Several institutions like *yogasana* centres, Sevalal, Scouts and Guides and the NCC also train children in physical exercise. Department of Education, Directorate of Youth Services and Sports, Director of Physical Education, attached to each University and several voluntary youth organisations are also engaged in sports activities. The Netaji National Institute of Sports (at Bangalore) and Nehru Yuva Kendras located in almost all district headquarters are provided with grants both by the State and the Central Government for the streamlining of the sports sector. The Department of Public Instruction in Karnataka has included Physical Education in the curricula of schools. After reorganisation, uniform rules were framed regarding the curriculum, staff and time-table for physical Education. The "National Fitness Corps" (NFC) came in being in 1965, applicable to children in the age group of nine to 16, as per which, a new comprehensive syllabus was formed. Thus Physical Education became a co-curricular syllabus. The NFC instructors were absorbed in the Department of Youth Services in 1976. A post of Superintendent of Physical Education was created to assist the D.P.I. in Karnataka. Later, a post of Divisional Superintendent of Physical Education was also created for each of the revenue divisions, attached to the J.D.P.I. At the University level, the Department is headed by the Director of Physical Education with several Assistant Directors to help him.

A separate College of Physical Education was started by the Government in Bangalore in 1959, where D.P.Ed Course for graduates was offered. In 1967, CP.Ed.course was also introduced for matriculates. In 1972, when the M.P.Ed. course was introduced, C.P.Ed. was abolished. The College was taken over by the Bangalore University in 1976. Similarly the Physical Education College (1972) run by the University of Mysore and two colleges of Physical education under the Karnatak University also offered B.P.Ed. course. In addition to this, many private colleges prepare students for C.P.Ed. course in the State. The prominent among them being, the YMCA, Bangalore, College of Physical Education Mallihalli, Municipal College of Physical Education, Chikkaballapur, Hemavathi College of Physical Education, Shravanabelagola and Colleges in Anchihalli (Tumkur dt.) and Bethamangala (Kolar Dt). Several associations in different sports events have been encouraging all games and they conduct tournaments, inviting players from all over the country. There are several recreation clubs all over the state that cater to the employed masses to spend their evenings joyfully. Generally all factories have such clubs. Apart from traditional gymnasias called *garadimane* that existed in villages where wrestling and Malkhamb training was imparted. During national movement, Vyayamashalas came to be founded in all important centres like Dharwad, Bellary, Kottur, Bangalore, Bantwal and other places. Dr. Hardikar's Hindustani Seva Dal played a special role by encouraging sports and physical exercises.

Wrestling has been a favourite sport from the ancient times. 'Garadimane' can be seen in all towns and big villages even to-day as mentioned already. The rulers of Mysore themselves were good wrestlers. They even conducted wrestling competitions. Wrestling bouts were common during Dasara in Vijayanagara times and Dasara sports were an annual feature in Mysore during the days of royalty and even to-day.

The State can boast of a host of athletes and players in different track and field events, athletics and other popular games. Here is a list of some notable ones till 1982 (given in brackets are the games they represent):- Amjad Khan (football), Allen Schofield (Hockey), Ananth K.R.(Mountaineering), Angel Mary (Athletics), Anil Kumar (Basket ball), Anisha Prasad (Swimming - Women), Anthony (Foot ball), Appaiah (Hockey), Aravind Savoor (Billiards), Aswathaiah (Volley-ball), Brijesh Patel (Cricket), Chandrasekar B.S. (Cricket), Chitra Gangadharan (Football-Women), Deshmuthu.C. (Hockey), Dev Prasad (Cycling), Elviro Britto (Hockey-Women), Gabriel (Athletics), Ganesh.M.P.(Hockey), Gopalappa.P.(Kabaddi), Govinda.B.P.(Hockey), Harischandra Hejmadi (Body-building), Indira Srinivasamurthy (Ball Badminton-Women), Jayappa (Power lifting), Jugtha Kahai (Cycling), Kabad Jayanth (table tennis), Kasturi Rangan (Cricket), Kenneth Powel (Athletics), Kench.R. (Cycling), Khurshed.R.Irani (Cycling-Women), Kirmani S.M.H.(Cricket), Krishna Gowda.H.N.(Kabaddi), Krishnan Kutti (Mountaineering), Lakkappa.T.V.(Weight lifting), Laxmi.V.Karanth (Table tennis for Women), Mac Britto (Hockey-Women), Manjunath Hegde (Body building), Nirmala Uthaiah (Athletics-women), Ponnappa .PC.(Athletics), Prakash Padukone (Shuttle), Prasanna E.A.S. (Cricket), Ravindran.R.(Chess), Ravindranath (Karate),

Ravi Prakash (Yogasana), Roger Binny (Cricket), Swetha Devaiah (Basket ball-women), Shailendra.D.N.(chess), Shyla K.N.and Shantha Ramamurthy (Ball badminton-Women), Sridharan. R. (Chess), Subbanna.M. (Kabaddi), Vasudevaraju (Yogasana), Vishwanath.G.R.(Cricket) and so on. Shantha Rangaswamy had been the captain of national ladies Cricket team for long. The ladies badminton team from Karnataka held championship for several years.

Of late, the Department of Youth Services and Sports, Government of Karnataka, has been providing facilities to athletes and sportsmen and women to pursue their interest in sports. A youth Service Officer is in charge of each district and is responsible for the progress of sports activities in his district. Athletes and sportsmen from all over Karnataka have been given all encouragement to participate in national and international events. In the National Women's Sports Meet held at Bhopal in 1993, the following ladies participated: 1) Athletics - V.A.Sumana (100 mts), Shanti Clever (400 mts), Mariamma (1500 mts), Gowramma (4 x 100 relay), Shital Patil (Long jump), G.R.Rekha (High jump). B. Padmavathi (Discuss Throw), Sharin Belliyappa (Javelin throw), Shanti Oliver (4 x 400 relay) and Levina Lobo (4 x 400 relay); 2) Kabaddi - Jamuna Mayamma, Sumithra, Kavitha, Jalajakshi, N.C. Savitha, S.K.Omachagi, C.R.Hadpad and N.Kavita; 3) Badminton- Sharmila, Dipa Ganapathi and Dipa Bokil; 4) Volley ball - Jayamala, Farida, Kalpana, Chandrakala; 5) Handball - Indumati, Veenadevi, Sahana, Renu, Rukmini, Shobha, Kanthi, Vanaja Kalappa, Nutan, Sujata, Indira, poornima, Anita, Veena Naidu and N.Jayashri; 6) Swimming - Vaishali, Rohini, Shanthi, Sagari, Rajani, Seema, Sangeetha, Srikripa, Priyadarshini; 7) Hockey - Padmini, Anuradha, Padmavathi, Tarana, Sujatha, Pratima, Varalaxmi, Rina, Savitha, Renu, Rukmini, Shobha, Kanti, Vanaja Kalappa, Nutan and Suja; 8) Basket ball - Shanthi, Meena, Chandrakala, Radhika, Jamuna, Sarita, Sylvia, Vinita, Sumangala, Nagarekha and Geeta S.N; 9) Gymnastics - Kavitha Ranganath, Vinkitha Rana, Suma Rani, Chaitra and Jayalaxmi; 10) Kho-Kho - S. Shamala, Chetana, Shanta, Asha, Bharathi, Rajashree, M.R. Patil, Maya, Chandrakala, Radha and Pushpavathi.

#### **Arjun Awardees from Karnataka**

1) Athletics: Kenneth Powell (1965), Panjil Mary Joseph (1978), Vandana Rao (1978) and Aswini Nachappa (1990); Cricket: E.A.S.Prasanna (1968), B.S.Chandrsekhar (1978), G.R.Vishwanath (1977), Syed Kirmani (1980), Shanta Rangaswamy (1976); Hockey: Elvira Britto (1965), V.G.Peters (1966), M.P.Ganesh (1973), B.P.Govinda (1975); Ball Badminton: Jayamma Srinivas (1972); Boxing: C.C.Machaiiah (1978); Snooker: Aravind Savoor (1978); Table Tennis: Usha Sunder Raj (1966); Kho-Kho: S. Prakash; Power lifting: P.K.Yeshodhar; Badminton: Shobha Murthy (1971) and Prakash Padukone (1972).

The following were the Arjun Awardees after 1985 :- Sudhanva (Hockey - 1985) : Vandana Rao (Athletics - 1997); Subbaiah (Hockey - 1997); Malathi Holla (Athletics - 1997); Mahadev (Athletics - 1998); Ashish Ballal (Hockey - 1999); S.D. Eashan (Athletics - 1999); Shobha Narayan (Kho-Kho - 1999); Satish Rai (Weight lifting - 1999); Venkataramanappa (Athletics - 2000) and Nisha Millet (Swimming - 2000).

### **Men and Women Ekalavya Awardees for 1994 from Karnataka**

Athletics: Arjun Devaiah and Sylvia Pias; Ball Badminton: V.Dhruva and P.Asha; Basket Ball: Rajkumaran and Rekha Mallik; Body building: Manjunath; Billiards and Snooker: B.V. Srinivasa Murthy; Cricket: Anil Kumble; Hockey: K.S.Uthaiah; Judo: Mirza Najib Aga and M.N.Triveni; Kho-Kho: Channabasavaiah and T.H.Veena; Kabaddi: B.Gopal; Lawn Tennis: P.Srinath and Arathi Ponnappa, Power Lifting: Satish Kumar; Swimming: J. Abhijit and Sajni Shetty; Table Tennis: G.K.Vishwanath and S. Poorna Rao; Weight Lifting: Shyamala Shetty; Volley Ball: Amit Roy Chowdary and T. Padmaja; and Women Cricket - Kalpana V. Shyamala Shetty holds the world record in weight lifting (women) for the present.

In the 12th Asian Sports Meet held at Hiroshima in 1994, the following Sportmen from Karnataka participated: Munivenkatappa (Kabaddi, Gold), Sylvia Pias (4 x 400 Relay, Gold), Varsha Shamarao Patki (Weight /lifting), Sabu Varki (Hockey), Ravi Naikar (Hockey), Sumita Thakur (Judo), Satish Rai (WeightLifting), E.B. Shaila (Sprinter) and N. Laxmi (Weight Lifting). Jude Filix headed the Indian Hockey Team in the said meet.

The following were the Ekalavya Awardees in different games and events for 1995: cricket - B.K. Venkatesh Prasad and K.S. Pramila Bhatt (1995); C.K. Harish, H.G. Apsara, Mahadev and K. Malathi Holla (1995); Ball Badminton - Puttaraju (1995); Hockey - Vinoda Chinnappa and K.M. Neelamma (1995); Body Building - T. Bhaskar (1995); Gymnastics - Shailesh (1995); Weight Lifting - K.V. Sridhar Gowda and Kumari (1995) Table Tennis - Bona Thomas John (1995) Lawn Tennis - V. Arathi (1995); Kho-Kho T.S. Siddalinga and N. Shobha (1995); Chess - Khalil Ur Rehman (1995); Swimming - Hakimuddin and Abhinaya Shetty - (1995); Judo - Aganel Siddi (1995); Taekwondo - A. Satish Kumar (1995); Wrestling - M.R. Patil (1995); Roller Skating - K. Srikantha Rao and Kavitha Poovaiah (1995); Volley ball - T.B. Ravindra (1995) and Handball - S. Amal Raj (1995). The National Games were held in Bangalore, the capital of Karnataka between the 31st May 1997 to the 11th June 1997. The participants from karnataka emerged as overall champions.

The following were the State Youth Award winners for 1999-2000. K.J. Suresh, Shankar, D.C. Manje Gowda, S. Balaji, Probodhachandra Hejamadi, O.N. Siddaiah, T.R. Venkatesh, Ganesh Anantha Booramane, Imthiaz Syed Mesthri and V. Chandramma.

For the same year Nisarga Youth Club and Spoorti Artistes Association got the Youth Award given to Associations.



## Chapter XI

# MEDICAL AND PUBLIC HEALTH SERVICES

**C**onsequent on the Reorganisation of States, the newly integrated areas of Karnataka state were lacking in medical and health service facilities especially in rural and border areas of the state. To overcome this, the State Government rigorously started implementing various national and state health programmes to improve the prevailing health services in the state in a short span. The policy of expansion and successful implementation of comprehensive public health service schemes has enabled the state to occupy a unique place in the country. During (1993-94) the state had an extensive network of 293 (176 Government) hospitals, 1,297 Primary Health Centres, 622 Primary Health Units/dispensaries and 7,793 Sub-centres. At present, (1999-2000) there are 176 Hospitals, 1,726 Primary Health Centres, 583 Primary Health Units, 249 Community Health Centres and 8,143 Sub-centres with more than 50,000 bed strength functioning in the State.

*Departmental Setup:* The Medical department came into existence in the erstwhile Mysore State in 1884. A Senior Medical Officer renamed as Senior Surgeon was made as the head of the department. He was looking after the administration of all the Medical Institutions of the State and was also made the ex-officio Sanitary Commissioner. Later on, the Medical department was separated from the Sanitary Department in order to give more importance to public health. In 1929 the Sanitary Department was renamed as public Health Department. The arrangements from the integrated areas with erstwhile Mysore in 1956 were fitted into this setup. The two departments so formed existed till 1965. A single line of command for both curative and preventive medicines was instituted as per the recommendations the Health Survey and Development Committee Report in 1945 and the Director of public Health and Directorate of Medical Services were merged to form one Directorate of Health and Family Welfare Services in 1965. Again in 1978, the department was bifurcated into two Directorates viz., Directorate of Health and Family Welfare Service and Directorate of Medical Education. The Directorate of Health and Family Welfare Services is providing comprehensive health care and services to the people of the state through its network.

At the divisional level there are four Joint Directors of Health and Family Welfare Services stationed at Bangalore, Belgaum, Gulbarga and Mysore. At the district level the District Surgeons, as well as the District Health and Family Welfare Officers are responsible for providing curative and promotive services including referral services apart from over all supervision of all the Health and Medical Institutions under them. In all the academic matters pertaining to medical education Rajiv Gandhi University of Health Sciences, Bangalore is co-ordinating Medical Education Department besides Medical Council of India, Dental Council of India and Nursing Council of India.

### **Vital Statistics**

The Director of Economic and Statistics is the Chief Registrar of Births and Deaths. The Joint Director, the Deputy Director and Assistant Directors are in charge of Vital Statistics as the Joint Chief Registrars. The Registration of Births and Deaths Rules 1970 came into effect from 1971 in the State. The Chief Registrar is the Chief Executive Authority in the State for implementing the Act.

The total number of births and deaths, are 7,80,496 and 209,873, respectively in 1990-91. And in 1998 the total number of births and deaths is 11,07,096 and 4,11,700 respectively. The crude birth and death rates for the year 1990-91: 27.9 and 8.7 for 1991-92: 27.8 and 8.1; for 1992-93: 26.8 and 9.0; and for 1993-94: 26.8 and 9.0, respectively, and the infant mortality rate for the same period was 80, 71, 77, 77 (for 1000 infants). For 1998-99 and 1999-2000 the crude birth and death rates are 22, 7.9 and 21.5, 7.5 respectively and the infant mortality rates are 58 and 50 respectively.

### Indian System of Medicine

The Ayurveda system of medicine was in practice from very early times. Several Ayurvedic Vaidyas enjoyed royal patronage. In every village there were at least one or two families capable of offering relief to patients with the help of herbs. Restricted to towns the Unani System of medicine was introduced in around the 14th century, during Muslim rule. The Unani physicians known as Hakeems enjoyed the confidence of the Muslim rulers as well as the general public. The Bahmani King Ahmed II (1436-53) ordered the construction of a splendid Shara Khana (hospital) at Bidar which attracted patients from all communities. Homeopathy, Yoga, Naturopathy and Siddha systems are also in practice.

A Separate Directorate for Indian System of Medicine was created in 1972. Prior to 1972 the system was under Health Department. Ayurveda, Unani, Homeopathy, Yoga, Naturopathy and Siddha Systems come under Indian system of medicine. There were 34 hospitals with 901 bed strength and 436 dispensaries. And three Government Ayurvedic Colleges, 39 private Ayurvedic Colleges, one Government Unani College at Bangalore and one Nature Cure Yoga College at Bangalore during 1992-93 in the State. There is a Nature Cure College at Ujire near Dharmasthala.

During the year 1999-2000 there are 93 hospitals with a provision of 1,430 Beds and 582 dispensaries in the state. The systemwise break up is given here below:

Name of the system	Hospital	Dispensaries
Ayurveda	68	507
Unani	11	45
Homeopathy	07	25
Nature Care	03	05
Yoga	03	-
Siddha	01	-
Total	93	582

There are 17 Ayurvedic Hospitals at District Level, of them Sri Jayachamarajendra Institute of Indian Medicine Bangalore, Government Ayurvedic Medical College Mysore and Government Taranatha Ayurvedic Hospital Bellary are teaching hospitals.

### Communicable Diseases

*Cholera* : Diseases like Cholera, diarrhoea and gastroenteritis are serious intestinal diseases which become fatal if timely treatment is not given. In Karnataka State, eight district namely Belgaum, Bellary, Bijapur, Chitradurga, Dharwad, Bidar, Mysore and Gulbarga

have been declared as endemic for Cholera. Cholera Combat Teams take up investigation, treatment and containment on spot in each of the above districts. During 1992-93 the attacks and deaths due to cholera were 401 and 14 respectively and the figures for gastro enterities for the same period were 15,262 and 608. Ten number of anti-cholera inoculations administered was 12,50,316. But with the provision of drinking water through borewells on a large scale, the incidence of cholera has declined during the last one decade. But industrial pollution has contributed to its appearance in many new areas like Mysore district. During the year 1999 there are 134 cholera attack cases noticed and three deaths occurred. For the same period the incidence of of Gastroenterities were 17,743 and 126 deaths caused due to gastroenteritis. Bangalore City also registered several cases in early 2001.

*Malaria:* Next to cholera malaria spreads in the community through the bite of female Anopheles mosquitoes. It was a serious disease in Malnad areas, and thousands suffered from it and with enlarged spleen. The spraying of D.D.T. started in 1940 had completely brought down the incidence to almost nil. But the disease has appeared again. The Government of India has selected Karnataka State for Malariosenic stratification of Bioenvironmental measures for its control. At present in some parts, the A.P.I.(Annual Parasite Index) is more than two, where two rounds of D.D.T. and three rounds of Melathion is being sprayed. The National Malaria Control Programme had been implemented since 1953 in the State. Later in 1958 it has been changed into the National Malaria Eradication Programme in all the districts. In the districts like Chitradurga, Hassan, Kolar, Mysore and Tumkur where high incidence of Malaria as much as 70% is noticed. During 1992, 69,13,592 blood smears were collected and examined and 81,057 positive cases were treated. During the year 1998, 75,68,135 blood smears were collected and examined 26,776 positive cases were treated. Under Urban Malaria sScheme during the same period 1,41,008 blood smears are examined 8,739 Malaria positive cases are treated.

The Urban Malaria Scheme is functioning in Bangalore, Belgaum, Hospet, Raichur, Hassan, Tumkur and Chikmagalur cities. There are 6,610 drug distribution centres and 3,234 fever treatment depots during the year 1992. The Central Malaria Laboratory Bangalore is serving as a referral laboratory in the State. Presently all the District Hospital, General Hospitals and Primary Health Centres are provided with blood testing and clinical facilities for eradication of malaria. During 1999-2000 both Central and State Governments have spent Rs. 55 crores each for implementation of this programme.

*Plague:* Plague is primarily a disease of some rodent and human infection on an appreciable scale. Plague appears in two forms (1) bubonic and (ii) pneumonic, the latter being more severe of the two. Sulphathiozle and Sulphapyridin have been found to be useful in the treatment of the disease.

Plague is of recent origin and dates from 1886 when it was introduced in some parts of Bombay Presidency from China and spread rapidly over a large part of the country. During 1897, the disease took a heavy toll. In 1898 Bangalore City alone had 4,472 deaths. Further the disease spread to Kolar, Tumkur and Mysore districts. In Bombay State, it took a heavy toll killing nearly 30,000 in Dharwad district alone in 1898 and the disease persisted killing thousands for almost two decades in Dharwad. After the advent of state-wide insecticidal spray operations under the National Malaria Control Programme, Plague declined. There have been no cases of plague in recent years. The plague surveillance unit was founded in



Bangalore in 1975 and become functional in 1976. Once again in 1994, Pneumonic plague appeared in Maharashtra spread to Karnataka also.

**Tuberculosis:** All the district headquarters of the state are having Tuberculosis Control Centres besides additional centres at Sira, Hospet, Sirsi, Yadgir and Koppal. The Central Programme was fully integrated with the general health service in 1992. There were 10 TB Hospitals, 172 X-ray Centres, 805 Microscopic Centres, 840 referral centres and one after-care and rehabilitation training centre at Bangalore. In 1992-93 as many as 68,109 tuberculosis cases were detected 11,89,401 were administered BCG inoculations. During the year 1999-2000, 1,87,936 sputum examined and 48,086 T.B. cases were detected and 11,75,688 were administered BCG inoculations.

**Leprosy :** The estimated leprosy cases in the state were 42,031 by the end of 1992 showing Karnataka has a medium endemicity of leprosy with a prevalent rate of 1.1 per thousand population. A total of 36,108 new cases were registered during 1992. There are 31 National Leprosy Control Centres, 14 Modified Leprosy Control units, 50 Urban Leprosy Centres. All the districts had a District Leprosy Officer to look after the district Leprosy Control Programmes. There is one Epidemiological Surveillance Team and there are 26 voluntary organisations. A multidrug treatment project was first introduced in some district during 1986 and later the facility has been expanded to few more districts. The number of new cases detected in 1992-93 was 26,499 and 39,529 cases were discharged/cured/disease arrested. Somanahally near Bangalore has a hospital run by Christian Missionaries who have been successfully curing leprosy patients. The number of cases detected during 1999-2000 was 73,515 of which 8,881 were found positive and were treated.

**AIDS :** Acquired Immune Deficiency Syndrome, a recent nightmare in public health had its first case found in Saundatti of Belgaum district in 1987. AIDS Surveillance activities started in 1987 in the state. There are 8 blood testing centres spread over different parts of Karnataka. The disease spreads mostly through sexual contacts and blood transfusion. During 1992, as many as 1,02,336 persons were examined 168 (HIV) Human Immune Deficiency Virus cases were noticed. Since 1987 to December 1999, 4,15,169 blood samples have been examined out of which 5,820 are found HIV positive, 255 AIDS cases confirmed and 90 have died.

**Filaria :** Filaria is a public health problem prevalent in Dakshina Kannada, Uttara Kannada, Bidar, Bijapur, Raichur and Gulbarga districts of the State, where control measures are being taken up. There are 16 Filaria Clinics at Gulbarga, Shorapur, Sedam, Yadgir, Shahpur, Shahabad, Chittapur, Aland, Bidar, Humnabad, Basavakalyana, Bhatkal, Gokarna, Mangalore, Udupi and Guledgud as on 1991. There is one Filaria Survey Unit in Raichur. In 1992 four more clinics were sanctioned, 1,19,816 Blood Smears were examined, 1,620 micro filaria cases were noticed, 2,838 disease cases were found and 4,022 treated. During the year 1999, 1,28,632 persons are examined and 1,178 microfilaria cases were noticed 8,591 disease cases were found and 9,671 treated. At present there are 25 flaria centres in the state.

Besides, Guinea Worm disease which evidenced in Belgaum and Gulbarga district. Japanese Encephalites is commonly seen in Tumkur, Mandya, Kolar, Raichur, Chitradurga, Bellary and Bangalore districts. Kyasanur forest disease prevalent in the districts of Uttara Kannada, Dakshina Kannada and Chikkamagalur. Handigodu Syndrome is in Shimoga

and Chikkamagalur districts. Fluorosis is common in the districts of Gulbarga, Dharwad, Tumkur, Bellary, Kolar and Raichur. It is caused by contaminated water, containing more fluoride and causes decay of teeth and deformities of bones.

There are three cholera combat teams at Bijapur, Gulbarga and Mysore. For Filaria Control there are six control units at Mangalore, Udupi, Gulbarga, Shahpur, Bidar and Guledgud (Bagalkot Dt) and 20 filaria clinics besides one Filaria Survey Unit at Raichur. There are 19 Health Laboratories and 9 Regional Chemical Examination Laboratories and one Virus Diagnostic Laboratory in Shimoga with two field stations at Sagar and Honavar. Attached to District Hospitals, there are 25 V.D. Clinics, 20 T.B. Treatment Units, 31 Leprosy Control Units, 6 Child Guidance Clinics at Bangalore, Belgaum, Bijapur, Gulbarga, Kolar and Mangalore. There are eight Psychiatric Clinics in the State. Under National Leprosy Control Programme, there are 50 Leprosy control Centres, functioning in the state besides 265 Survey Education and Treatment Centres. There are 25 voluntary organisations also serving the people of the State. The Government has also opened two Leprosy Training Centres, one at Gulbarga and the other Kollegal (Chamarajanagar Dt).

### **Medical Institutions**

Most of the major hospitals of the state are attached to the Medical colleges and they are providing clinical facilities along with almost all specialist services. They function as a referral hospitals to the other institutions which come under their jurisdiction. They are having specialities like Medicine, Surgery, Obstetric, Gynaecology, ENT, Skin and VD, Pathology and Bacteriology, Radiology, Anesthesia, Dental etc., besides latest modern medical services. A brief account of some of the major hospitals of the state is as follows.

- 1) Bowring and Lady Curzon Hospital, Bangalore (1866) was the only Civil medical institution till 1900 in Bangalore. It had a bed strength of 104 at the beginning and at present, it has a bed strength of 686.
- 2) Victoria Hospital, Bangalore (1900) inaugurated by Lord Curzon is the biggest hospital in Karnataka. To begin with the accommodation was provided to 100 inpatients. It has facilities like operation theatre, laboratory, pharmacy section etc., It is a teaching hospital. It has a burns ward sponsored by the Mahabodhi Society.
- 3) K.R.Hospital, Mysore (1876) was a dispensary and in 1918 it was upgraded to a general hospital. Later on, it was converted into a teaching hospital attached to Mysore Medical College. It started with a bed strength of 20 and presently the bed strength has been raised to 1,070.
- 4) St. Marthas Hospital, Bangalore (1886) was a 40-bed hospital. Now the bed-strength is over 600. There is a school of Nursing attached to it. All types of diseases are treated here. It is equipped with modern medical and surgical facilities.
- 5) Father Mueller's Charitable Institution Mangalore had its beginning in the modest Homeopathic Poor Dispensary founded by father Mueller, a German Missionary in 1880. Gradually, it is expanded into a General Hospital by 1895. Now, it is a full-fledged general hospital with all modern facilities.
- 6) Mary Calvert Holdsworth Memorial Hospital, Mysore (1906) is a hospital for women and children. At present it has grown to 280-bed hospital with all modern facilities.

- 7) Ellen Thoburn Cowen Memorial Hospital, Kolar, (1910) is a property of Methodist Church in India. It is a 210-bed hospital.
- 8) Minto Regional Institute of Ophthalmology, Bangalore was founded in 1913 as the Minto Ophthalmology Hospital. In 1982, it was upgraded as Minto Regional Institute of Ophthalmology with a provision of 277 beds.
- 9) The Karnataka Health Institute, Ghataprabha, Belgaum District was founded in 1935 with a purpose of bringing modern medical facilities to the doors of neglected villages. It is a 166-bed hospital along with 55-bed maternity ward.
- 10) Vanivilas Hospital, Bangalore started functioning in 1935 with 250 bed strength exclusively for women and children.
- 11) St. Philomena's Hospital, Bangalore was founded in 1937 is one of the well equipped hospital with 255-bed provision.
- 12) The Kempa Cheluvamba (K.C.) General Hospital, Bangalore was started as a maternity hospital in 1939 with a provision of 40 inpatients. Later in 1962 it was converted into a General Hospital with 313 bed strength.
- 13) Karnataka Medical College Hospital, Hubli, started in 1960 as a teaching College with 150 beds. At present the bed strength is 770. This hospital caters to all branches of medicine with laboratory and pharmacy facilities.
- 14) St. John's Medical College Hospital, Bangalore started in 1975. It is a fully equipped modern hospital to treat all types of diseases. The present bed strength is 401.
- 15) Sanjay Gandhi Institute of Accident, Rehabilitation and Physical Medicine is an autonomous body receiving grant from Government. It started working from April 1984. The Kasturba Medical College Hospital at Manipal and the Government Medical College Hospital at Bellary are also two notable institutions.

There are many private hospitals and Nursing homes in Bangalore. Of them Manipal Hospital, Mallya Hospital and Sri Satya Sai Institute of Higher Medical Sciences and Super Speciality Hospital in Bangalore are prominent. Manipal, Mangalore, Hubli, Belgaum etc., have full fledged private nursing homes to treat almost all major ailments.

### **Specialised Institutions**

In addition to Medical Institutions there are specialised institutions/hospitals which render specialised treatment and undertake the research work. A few of them are listed below :

- 1) Kidwai Memorial Cancer Institute, Bangalore.
- 2) Srivenkateshwara ENT Institute, Bangalore.
- 3) Jayadeva Institute of Cardiology in the Victoria Hospital Campus, Bangalore.
- 4) All India Institute of Mental health and Neuro-Sciences, Bangalore.
- 5) Institute of Ophthalmology, Bangalore.
- 6) Institute of Speech and Hearing, Mysore.
- 7) National Tuberculosis Institute, Bangalore.

- 8) Lady Willingdon Tuberculosis Institute, Bangalore.
- 9) Karnataka Institute of Mental Health, Dharwad.
- 10) Karnataka Cancer Therapy and Research Institute, Hubli (private)
- 11) Hope Infertility Clinic, Bangalore (private)

**Following are the specialised institutions like clinics, laboratories, etc.**

1) Central Malaria Laboratory, Bangalore	1
2) Drug Distribution Centres	3,074
3) Fever Treatment Depots	4,897
4) Urban Malaria Centres	8
5) Filaria Survey Cell	1
6) Filaria Clinics	15
7) Filaria Control Units	6
8) Virus Diagnostic Laboratory, Shimoga	1
9) KFD Trial Vaccine Unit	1
10) Cholera Combat Teams	5
11) Mobile Ophthalmic-cum-Dental Units	4
12) Divisional Mobile Ophthalmic Unit	4
13) District Mobile Ophthalmic Units	6
14) Eye Banks -(3 Government, 1 private)	4
15) District T.B. Centres	22
16) District Leprosy Centres	20
17) Urban Leprosy Centres	46
18) Leprosy Control Centres	30
19) Modified Leprosy Control Units	12
20) Survey Education and Treatment (SET) centres	675
21) Epidemiological Surveillance Team	1
22) Sample Survey-cum-Assessment Unit	4
23) Temporary Hospitalisation for Leprosy	22
24) Reconstructive Surgery Units for Leprosy	6
25) Model Leprosy Control Centres	1
26) Leprosy Rehabilitation Promotion units	3
27) Voluntary Organisations	22
28) Mobile Nutrition Education and Demonstration units	5
29) Public Health Institute, Bangalore	1
30) Divisional Food Laboratories	4
31) District Laboratories	19
32) Regional Assistant Chemical Examiners Laboratories	9
33) Vaccine Institute, Belgaum	1
34) Hospital Pharmacy	51
35) Sexually Transmitted Diseases Clinics	24

36)	Psychiatric clinics	13
37)	Dental Clinics	127
38)	Burns Wards	6
39)	Blood Banks (34 Govdernment, 19 private, 5 voluntary, 2 autonomous)	60
40)	Ambulance Facility available in Institution	54
41)	Mobile Medical Units	4
42)	'X'-Ray Plants Taluk level	125
	Below Taluk level	16

### General Hospitals

General Hospitals are located in all the district hearquarters as well as in some important taluk Head Quarters with bed strength varying from 30-400. Usually district level hospitals have more than 250 beds. These hospitals provide specialist services such as medicine, surgery, obstretics and gynaecology. But district hospitals provide speciality seervices like ophthalmology, ENT, paediatrics, orthopaedic, skin and STD, palnology, bacteriology, radiology, dental etc. and have been provided with facilities such as 'X'-ray unit, screening and laboratory, blood bank etc., The district hospitals serve as referral hospitals to the peripheral institutions.

Epidemic diseases hospitals which are functioning at Bangalore, Mysore and KGF are special type of institutions. These hospitals are meant for treating epidemic diseases like, cholera, gstro-enteritis, diphtheria, tetanus, hooping cough, rabies, measles, chickenpox and other infections. As in 1990 there are 16 hospitals having pharmacy units in the state under the control of the director Medical Education and one unit is under the control of the Director of Health and Family Welfare Services, Bangalore. During 1999-2000 there are 177 General hospitals in the State.

### India Population Project - IX

Under this project various projects and programmes have been undertaken. During the year 1998-99. 315 sub-centres, 14 Primary Health Centres, and 43 medical officers quarters have been constructed and repairs of 1,225 buildings are undertaken besides, the construction work of State Health and Family Welfare training centre in Bangalore, eight district training centre four Junior Health Assistants (Female) training centres and one Health and Family Welfare training centre in Mysore. In training section a total of 3,994 different health staff including Medical officers have been provided training during 1998-99.

Action has also been taken to put 1000 metallic tin bounds in KSRTC buses about the aims of IPP (IX) (K) and to bring awareness among the various people about health and Family Welfare, 12 Tele series, 11 Tele Films and 100 V.H. copies of Tele films have been provided for exhibition under IEC., For implementation of the project three work stops have been conducted. Action has been taken to supply furnitures to the constructed buildings and computers to each District Hospital.

### Population Centre Bangalore

The main object of the Population Centre is to assist the Government of Karnataka especially Directorate of Health and Family Welfare Services in implementing various health

and family welfare programmes more effectively and efficiently by undertaking various Research and Evaluation Studies and organising in service training programme for various categories officials.

*Rural Health Programme* : For attaining the desired level of health, every individual must have access to primary health care through comprehensive health service system. The state is following the National pattern of three-tier health infrastructure in rendering Primary Health Centres, Health Units, Community Health Centres and Sub-Centres. The policy of the Government is to establish one Primary Health Centre for every 30,000 population and primary health unit for every 15-20 thousand population and a Sub-Centre for 5,000 population. The Community Health Centre (CHC) for every one lakh of population or one out of four P.H.C.s to be formed to cater to the health care of the rural mass.

During 1992-93, there were 198 Community Health Centres, 1,297 PHCs., 622 PHUs and 7,793 Sub-centres functioning in the State. At present there are 249 Community Health Centre, 1726 Primary Health Centre, 583 Primary Health Units and 8,143 sub centres functioning in the State. The earlier scheme of establishing Primary Health Units has been discontinued. Existing units will be upgraded as Primary Health Centres in a phased manner. The table provides districtwise details on hospital facilities in Karnataka as in 1999-2000 (see page 243 for details)

### **Family Welfare Services**

Erstwhile Mysore State had initiated the idea of some kind of birth control as early as in 1930, inducing clinics to advise mothers on the subject in two hospitals in the state. The Family Planning programme gained momentum at the beginning of the Second Plan. For better co-ordination and supervision, while implementing the programmes at various levels, the District Health Officer was redesignated as the District Health and Family Welfare Officer to look after the Welfare activities of the District. In 1964 Family Planning Bureau was formed at each District Headquarter to co-ordinate the family welfare activity.

Extension approach was adopted in 1964, wherein Education Service facilities were extended to the door steps of the rural masses and the urban people. Facilities have been provided in all medical institutions for conducting vasectomy, tubectomy, leproscopic operations and IUD placements. Intensive propaganda through lectures, filmshows, exhibitions, publicity, literature etc., is being conducted throughout the state to popularise the programme. As a result, female sterelisation gained momemtum and laproscopic operation was found to be safe.

The achievement under Family Welfare Programme during 1992-93 included 3,31,500 sterelisations, 2,37,820 IUD placements, 2,65,872 CC users and 81,561 OP. users in the state. Number of sterelisations during 1998-99 was 2.70, lakhs, IUD palcements, 2.53 lakhs, C.C. users, 2.75 lakhs and OP users 1.44 lakhs.

*Maternal and Child Health Services* : As a part of Family Welfare Programme, great emphasis has been layed on improving health of the mothers and children since it is of vital importance to the acceptance of the family norms. Under this MCH programmes children are immunised against tetanus, T.B., polio, Measles, Diphtheria and Pertursis and tetanus

and pregnant women against tetanus. During 1992-93, the progress achieved under this programme was 10,88,000 doses of DPT, 9,56,000 doses of D & T, 12,16,000 TT for mothers. 7,34,000 TT for children below 10 years, 10,91,000 doses of oral polio drops, 11,89,000 measles and 10,13,000 BCG administered in the State.

In the year 1999-2000 achievement under MCH immunisation programme is as follows : DPT 10,99,455, Polio 10,99,425, BCG 11,75,688. Measles 10,41,556 and T.T. 12,10,239 (for children below 10 yrs) doses were administered.

#### District-wise Immunisation and Family Welfare Programmes for 1999-2000

Sl. No.	District	Immunisation Programme					Sterilisation
		DPT	Polio	BCG	Measles	TT	
1.	Bangalore	107,202	107,202	110,576	107,758	112,520	47,729
2.	Bangalore (R)	38,961	38,961	42,141	36,165	44,398	16,715
3.	Chitradurga	33,540	33,540	38,116	31,798	41,474	12,097
4.	Davanagere	37,466	37,466	44,905	35,627	41,301	12,622
5.	Kolar	56,956	56,956	62,076	51,897	63,274	24,246
6.	Shimoga	39,232	39,232	40,444	37,245	45,299	14,480
7.	Tumkur	53,769	53,769	58,934	51,152	59,942	16,677
8.	Belgaum	97,287	97,287	104,538	91,360	109,731	43,272
9.	Bijapur	43,166	42,718	43,311	37,677	44,377	12,646
10.	Bagalkot	41,171	40,675	43,054	38,619	44,471	13,848
11.	Dharwad	35,674	35,685	41,116	32,245	37,439	14,649
12.	Gadag	23,237	23,408	24,332	21,525	26,027	7,970
13.	Haveri	34,978	35,710	38,505	34,096	40,383	12,359
14.	U. Kannada	21,986	21,986	22,541	20,853	23,585	8,634
15.	Bellary	46,686	46,686	54,677	44,550	54,942	12,941
16.	Bidar	36,530	36,530	35,474	34,348	39,923	14,233
17.	Gulbarga	78,990	78,990	86,327	75,825	83,610	19,621
18.	Raichur	24,448	24,448	25,836	21,490	26,601	7,590
19.	Koppal	43,260	43,260	42,516	41,799	47,351	11,479
20.	Chikmagalur	21,697	21,697	23,304	20,910	23,197	9,534
21.	D. Kannada	22,675	22,675	22,325	21,616	25,184	7,904
22.	Udupi	12,907	12,907	12,958	12,993	13,170	5,394
23.	Hassan	33,954	33,954	35,371	31,291	36,601	14,901
24.	Kodagu	11,132	11,132	12,076	10,555	11,512	3,894
25.	Mandya	33,174	33,174	35,469	31,381	35,576	15,095
26.	Mysore	50,247	50,247	55,497	54,997	56,744	24,565
27.	Chamarajnar	19,130	19,130	19,269	17,980	21,597	8,013
<b>Total</b>		<b>10,99,455</b>	<b>10,99,425</b>	<b>11,75,688</b>	<b>10,41,556</b>	<b>12,10,239</b>	<b>4,13,092</b>

Source : Directorate of Health and Family Welfare Services

**Health Institutions and Hospital Facilities in Karnataka 1999-2000 (District Wise)**

Sl. No.	District	State Government		Indian System of Medicine		Primary Health Centre		Primary Health units		Unter ISR	Family Welfare	
		Nos.	Beds	Nos.	Beds	Nos.	Beds	Nos.	Beds	Nos.	Centres	Sub-Centres
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Bangalore	12	4,327	7	396	31	412	42	35	13	47	140
2.	Bangalore (R)	4	210	4	32	73	777	29	36	13	15	286
3.	Chitradurga	4	635	3	22	57	598	32	36	33	19	458
4.	Davanagere	5	1,130	1	6	70	664	33	-	32	-	-
5.	Kolar	10	1,127	3	26	83	820	37	61	11	22	375
6.	Shimoga	6	692	3	60	55	546	38	94	32	18	380
7.	Tumkur	4	508	5	46	97	850	39	36	27	21	418
8.	Belgaum	9	1,060	5	34	136	988	13	36	27	34	598
9.	Bijapur	5	536	3	17	65	516	2	13	13	29	456
10.	Bagalkot	7	370	326	46	354	2	13	15	-	-	-
11.	Dharwad	5	1,430	1	25	29	332	3	-	13	41	596
12.	Gadag	7	291	1	10	29	222	6	-	18	-	-
13.	Haveri	5	180	212	50	426	23	75	12	-	-	-
14.	Uttara Kannada	11	3	26	62	466	19	50	12	17	316	-
15.	Bellary	11	1,300	8	138	54	473	17	4	67	17	264
16.	Bidar	5	443	3	31	42	350	13	47	21	13	231
17.	Gulbarga	12	1,190	7	50	105	790	24	90	44	29	512
18.	Raichur	4	340	3	31	47	362	6	10	16	23	378
19.	Koppal	5	138	3	22	43	388	2	-	16	-	-
20.	Chikmagalur	5	479	3	22	52	552	40	44	40	14	335
21.	Dakshina Kannada	6	1,163	1	6	64	516	5	-	7	28	708
22.	Udupi	4	493	-	-	63	565	11	10	6	-	-
23.	Hassan	7	820	5	557	82	769	52	160	55	18	463
24.	Kodagu	8	950	3	30	29	329	4	-	5	6	163
25.	Mandya	6	558	3	37	72	774	37	36	15	15	376
26.	Mysore	8	2,100	8	199	97	937	47	186	32	33	690
27.	Chamarajnagar	2	157	2	16	52	468	7	16	11	-	-
<b>Total</b>		<b>177</b>	<b>23,273</b>	<b>93</b>	<b>1,430</b>	<b>1,685</b>	<b>15,144</b>	<b>583</b>	<b>1,122</b>	<b>609</b>	<b>459</b>	<b>8,143</b>

Source : Karnataka State at a glance 1999-2000



Under the National Programme of Prevention of Blindness, Vitamin 'A' concentrate is being distributed to the children of 1 to 5 years of age at an interval of six months.

### School Health Programme

Medical examination of school children in all the primary and higher primary schools in the rural areas are conducted. Immunisation against DT and TT treatments of ailments, Health Education to teachers and students etc., are included in this School Health Programme. From April to November 1992, 3,94,326 students have been medically examined, 35,966 were found to be medically defective, 4,39,172 students were administered DT vaccine and 3,23,875 were given TT vaccine. In 1999, 7,65,757 students are examined of which 1,34,411 are found to be medically defective. During the period 5,19,902 students were administered DPT and 7,21,693 were administered with T.T. vaccine.

**Central Government Health Services :** The Central Government Health Services Department is running 14 dispensaries, two Ayurvedic, one Homeopathic, one Polyclinic unit in the State. There is a Central Drug Stores at Bangalore.

### Selected Indicators of Health Facilities in Karnataka

Sl. No	Physical Indicators	1997-98	1998-99	1999-2000
1.	Number of Primary Health Centres	1676	1676	1676
2.	Number of Sub-Centres	8143	8143	8143
3.	Crude birth rate	22.7 (27.2)*	22.00	21.3
4.	Crude death rate	7.6 (8.9)	7.9	7.5
5.	Infant Mortality rate	53 (71)	58	50
6.	Life expectancy Project (1996-2001)			
	Female	65.40	65.40	65.40
	Male	61.70	61.70	61.70
7.	Eligible couples (lakhs)	81.80	82.50	83.00
8.	Couples Protected (lakhs)	47.70	48.30	50.00
9.	Proportion of couples (present) protected	58.30	58.60	60.00

\* Figures underbracket indicate all-India rate. Source : Director of Health and Family Welfare Services.

### Pulse Polio immunisation programme

With the objective of eradication of poliomyelitis by 2000 AD. The pulse polio programme is being implemented in the state from the last five years. Every year two rounds of Polio drops were administered to the children below the age of five years. But during the fifth year in the final phase of Intensified Pulse Polio Programme 64.67 lakhs children were administered Polio Drops on 13th October 1995, 66.5 lakhs on 21st November 1995, 8 lakh on 19th December 1999 and 69.09 lakhs on 23rd October 2000.

**Employees State Insurance Scheme : ESI** a Centrally-sponsored scheme is a major social security programme to give protection against loss of wages for the labourers on account of sickness, disablement, confinement and death. In addition, medical assistance is also given to the family members of the insured persons. Under this scheme for the year 1992-93, 4.05 lakh persons were covered and 20 lakhs of their family members were treated.

As on 1991-92 there were seven ESI Hospitals, 115 full-time dispensaries, 12 part-time dispensaries, 12 Employees facility dispensaries and two Ayurvedic dispensaries in the State. A total of 1,761 beds were reserved for ESI patients. During 1991-92, 40,50,829 out-patients were treated and 63,428 in-patients received treatment under the scheme in the state. For the year 1999-2000 medical the facility has been extended to 7,73,000 insured persons and about 40,00,000 of their families through this ESI organisational set up, through a network of nine ESI hospitals, three ESI Annexure hospitals, 129 Full Time ESI dispensaries, seven partime ESI dispensaries 12 employer facility dispenseries and one Diagnostic Centre in the State.

**Drugs' Control :** The protection of health of the medicine consumers of the state by exercising strict control and vigil, so that the drugs manufactured and marketed for sale in the state are of standard quality and are available at controlled prices is attended to by three wings viz 1) Enforcement/Administration, (2) Drugs Testing Laboratory and (3) Government College of Pharmacy.

The Drugs Controller is the head of the Department assisted by one Additional Drugs Controller at the headquarters who are in charge of licensing, manufacturing, intelligence, price control, hospital inspection and advertisement wing duly assisted by Drugs Inspectors. A separate Assistant Drug Controller is in charge of the Board of Examining Authority for the purpose of conducting Examinations in Diploma in Pharmacy.

There were 237 drugs and 80 cosmetic manufacturing units, 14,019 qualified pharmacists, 6,113 chemists and druggists and 9,485 registered licensed sale establishments in the State as on 31st December 1992. Presently, (1999-2000) there are 657 licencees comprising of 566 drug manufactures and 76 cosmetic manufacturers and 15 Repacking units engaged in manufacture of both bulk drug and fomulations. There are 13,209 dealers (chemists and druggist) in the state. During the year there are 94 blood banks and eight testing laboratories functioning in teh state. In all the District Hospitals drug sub-centres are opened.

**Karnataka Medical Council :** Karnataka Medical Council was established after the passing of Mysore Medical Registration Act V of 1931 in 1932, as Mysore Medical Council and later in 1974 it was renamed as Karnataka Medical Council. The main objective of its formation was to provide the Registration facility for Medical practitioners practising allopathic system of medicine, surgery and obstetrics. The total number of members at the end of December 1999 was 58,073. The membership in the council carries certain privileges to the Medical Practitioners.

**Indian Medical Association :** Karnataka State Branch of I.M.A. was founded in 1928, at Bangalore with the aim of promoting medical and allied sciences in all their different branches. The membership of this Association is optional. Any qualified doctor of modern medicine serving either in Government or in private can become a member. There are 67 branches of this Association spread all over parts of Karnataka State. This is a purely non-political organisation which offers, suggestions to Government on matters pertaining to projects such as health education and also promotes fellowship among doctors. The total membership in Karnataka at the end of December 1992 which was 5,043, rose to 8,232 by the end of 2000 AD.

#### **Karnataka Chief Minister's Medical Relief Society**

A Sum of Rs. 19,86,54,503 has been collected for the Karnataka State Chief Minister's Relief Society Fund. So far (upto 1998-99) 3,178 have been benefited from this scheme. An expenditure of Rs. 1,52,00,000 has been incurred so far.



## **Chapter XII**

# **SOCIAL WELFARE MEASURES**

**I**n addition to education and health care, many welfare activities are undertaken by the State. Welfare of labour, Scheduled Castes and Scheduled Tribes, Backward Classes, women and children, the disabled and other weaker sections are concerns of Welfare State. Besides, the Government, various voluntary organisations and agencies have also come forward in fulfilling the task. Some of the major activities and programmes taken up in this direction are highlighted here.

### **Labour Welfare**

The Labour Department headed by the Labour Commissioner is functioning with Bangalore as head office. The Labour Commissioner is assisted at the Head Quarters by the Additional Labour Commissioner, two Joint Labour Commissioners and other Officers. There are five Regional officers of whom, two are in Bangalore and one each at Hassan, Belgaum and Gulbarga. There are 11 Divisional offices, 39 Sub-divisional offices at the District level, seven Labour Officers Exclusively for Child Labour, 63 Circle Offices coming under the municipal corporation and 164 Circle offices at taluk level. The main functions of this department are: 1) Prevention of strikes, lock-outs, settlement of industrial disputes and maintenance of industrial peace and harmony in the State. 2) Administration and enforcement of various Central and State Labour laws and rules framed there under. 3) Fixing minimum wages at regular intervals for various scheduled employments under the Minimum Wages Act. 4) Popularisation of Worker's Education Scheme and enforcement of recreational activities among workers through welfare centres of the Labour Welfare Board. 5) Implementation of the recommendations of the various Wage Boards and other Tripartite Bodies. 6) Implementation of International Labour Organisation conventions ratified by the Government of India. 7) Extending the benefit of welfare provisions of the various Labour Legislations and bringing about improvement in working conditions. 8) Ensuring minimum wages to unorganised categories of workers in agricultural and other scheduled employments as per the minimum wages Act.

During the year 1999-2000, there were twenty three strikes and seven lock-outs involving 6,721 workers in the State. As per the Industrial dispute Act 1947, 334 cases were settled. 152 were withdrawn and 843 were pending at the end of December 1999. The number of applications received as per the Worker's Compensation Act 1923, were 3,655, the number of claims settled were 2,580 and as per the Industrial Employment (Standing Orders) Act, 1946, the number of establishments certified were 2,277.

*Employees State Insurance Scheme* was introduced in the year 1952 in accordance with the E.S.I. Act 1948 and rules thereunder. Initially, this scheme was covering non-seasonal factories employing 20 or more workers and those who were drawing wages upto the maximum of Rs. 400 per month. Since January 1997, the wage limit was raised to Rs. 6,500 per month and the Act also has been amended to cover factories not using power with 20 or more persons and shops and business establishments, hotels, cinema homes and such other establishments employing 20 or more persons. The ESI Scheme provides mainly six benefits, namely; 1) Medical benefit in kind 2) Sickness benefit, 3) Maternity benefit 4) Disablement

benefit 5) Dependents Benefit and 6) Funeral Benefit, all in cash. The medical benefits are extended to persons insured as well as to their families. The E.S.I. Scheme in Karnataka was first implemented in Bangalore on 27-7-1958 with 12 dispensaries and one 100-bedded hospitals for 48,000 in patients. Since then, the scheme was expanded rapidly and is now providing full medical care to about 7,73,000 insured persons. Karnataka is the first State in the country to extend full medical care to families of insured persons. During 1999-2000, the State has provided full medical care to about 5 lakh families units covering 40 lakhs beneficiaries in the state. During 1999-2000 there were 9 E.S.I. Hospitals, 129 full time and seven part-time dispensaries, nine Ayurvedic dispensaries, 12 Employer facility dispensaries and one diagnostic centre.

In order to create awareness in the minds of both management and workers about safety, health and welfare while working in factories, the Department of factories and Boilers headed by the Chief Inspector of Factories and Boilers is functioning in the State. The Department is entrusted with the responsibilities of enforcing the following Acts and rules thereunder: a) The Indian Boilers Act, 1923, b) The Payment of Wages Act, 1936, c) the Factories Act, 1948, d) The Maternity Benefit Act, 1961 and the Dangerous Machines (Regulation) Act, 1983. The Department ensures a safe working environment for about 8.98 lakh workers employed in about 5,978 registered factories exposed to dangerous operations. It conducts inspection of 2,355 registered boilers, as per specifications prescribed in the Indian Boilers Regulations Act, 1950, and certifies their safety.

**Trade Union Movement:** Though Karnataka has a number of modern industrial units by the close of the First World War, labour was not organised in the State till then. The Railway workers had organised themselves at Hubli and Mysore in 1920s. The Trade Unions Act that was passed in 1926 at the Centre. But this Act was not extended to erstwhile Mysore till 1941. As a result Trade Unions in erstwhile Mysore, were registered as charitable institutions. The first labour unions were those organised by Congressmen in Bangalore. The early leaders were A.M.Ramsharma, a Journalist, and K.T.Bhasyam who organised the Binny Mill workers in the 1920s. The Binny Mill firing of 1926 in which some persons were killed, resulted in the Congress conducting an enquiry by appointing a private Commission headed by C.V.Narasimha Murthy. This incident helped to strengthen the morale of the workers. The Raja and Minerva Mill workers were also organised by the congress leaders. In 1929, Bangalore Textile Trade Union was founded and it became powerful. By 1938 it had acquired strength for compelling the State government to intervene on behalf of the Management. An Act similar to the Central Act 1926 was passed in 1941.

Trade Union Movement was strong in many other districts of the state, like Gokak Falls, Hubli and Mangalore. In 1929, the Mysore Railway Men's Association was established under the Presidentship of M.Venkatakrishnaiah. During 1930s, V.V.Giri, General Secretary of All-India Railwaymen's Federation visited the state to strengthen trade union movement.

In Belgaum district, the trade union movement was initiated even before the passing of the Trade Union Act 1926. some of the earliest trade unions as per the available sources were Presidency Postmen's and Lower Grade Staff Union (1918), the Belgaum Divisional Postal Union (1920), and the Belgaum district Postmen's and Lower Grade Staff Union (1925).

In Mangalore the tile and cashewnut workers and Beedi workers had also organised themselves in 1937, Kamaladevi Chattopadhyaya being one of the leaders. The Bharat Mills of Hubli and Gokak Mills of Gokak Falls organised such similar trade unions prior to the second world war.

The textile worker's long strike in Bangalore in 1940 forced the Mysore Government to recognise labour unions by an Act of 1941. The trade unions all over struck work for many days to support the Quit India Movement in 1942. Upto 1940, labour movement was more or less confined to textile industry. In the engineering industry which constitutes the second largest sector of the State, the movement emerged only after the Second World War.

The Hindustan Aircraft Employees Union was founded in 1946. An employee of HAL who organised labour was dismissed in 1951. The Union was received by outside leadership in 1954. This pattern was followed in other units and gradually the Trade Unions in the Industries admitted outside leadership.

The Trade Union Movement was gradually becoming stronger in its membership and also in the number of unions year by year. By the end of 1980, there were 1,636 trade unions which increased to 3,905 in 1999.

There are 4 Industrial Tribunals functioning in the state, two at Bangalore, and one each at Hubli and Mysore. There are 12 Labour Courts, 4 at Bangalore, two at Hubli, one each at Mangalore, Mysore, Chikmagalur, Gulbarga, Bijapur and Madikeri.

#### **Welfare of SCs and STs**

The welfare movement of Scheduled Castes and other depressed classes was initiated in many parts of the State, even earlier to the movement started by Mahatma Gandhi. In the year 1889-90, two Government Schools were opened for the untouchables at Huskur (Bangalore Dt.) and Narasapur (Kolar Dt). During 1890 a Mission School was started at Mysore for them. The Theosophical Society took initiative for the welfare movement of the Untouchables when it started its activities in Mysore during 1896. Kudmul Ranga Rao started Depressed Classes League at Mangalore in 1897 and started schools for the Koragas and other untouchables in Dakshina Kannada. In 1910, M. Venkatakrishnaiah founded "Panchama Education League" and in 1913, Government sanctioned a Central Boarding School for the Panchamas at Mysore with provision for Industrial Training. The Depressed Classes Education Mission was formed in 1913 at Mysore and it took up the work of improving the conditions of the Depressed classes. During 1915-16, there were 287 schools for the Depressed Classes, in which, 171 were government, 108 aided and 8 unaided in the erstwhile Mysore. In and in the same year, the Mysore Government passed an order to admit untouchables in all the public schools in the State with the principle that none should be denied admission to schools run by the public funds.

In 1918, a resolution was made to work for Education of Untouchables at District Political Conference at Athani and in the same year Panchama boarding school was started at Tumkur and Chikmagalur. Veeranna Gowda Patil had started a Hostel for untouchable boys in Belgaum in 1920's before his joining the Congress. Tagadur Ramachandra Rao had started his movement for eradication of untouchability in Mysore District by strongly opposing the restriction on the untouchables in utilising public tanks and wells, taking out processions in streets, securing the admissions to schools and entry into temples during the 1930's. He

also established Satyagraha Ashrama at Tagadur during 1931 to bring about social equality. Govindacharya Swamy a retired engineer, was another person who strived for the cause in Mysore.

During the Gandhian era, special efforts were made to work for the upliftment of the Scheduled Castes called as Harijans by Mahatma Gandhi. He undertook Harijan tour in various parts of the State in 1934 and 1936. During his tour he visited many Harijan colonies and appealed to the people to put an end to the practice of untouchability and to improve the lot of the depressed classes. A branch of the Harijan Sevak Sangh was started in Karnataka soon after his tour and Sardar Veerannagowda Patil became the State President. R. Gopaldaswamy Iyer worked tirelessly during the 1930's and 1940s in the erstwhile Mysore State for the education of the Untouchables and securing jobs for the newly educated among them.

In 1935, an advisory committee for the welfare of the depressed classes, consisting of members of the depressed classes and others was constituted under the Chairmanship of the Director of Public Instruction in Mysore. In Gulbarga area, the Government made it a policy to allow the private agencies to open special primary schools for the children of the depressed classes with the financial aid from Nizam's government. Another effort to uplift the untouchables was the opening of a 'Sarvajanika' Hostel at Mysore for all communities including the untouchables by T.S.Subbanna, who moved from street to street to collect the resources for its establishment. The scheme for the award of overseas scholarships to the students of Backward classes was sanctioned by the Government of erstwhile Bombay Presidency in 1948-49. In 1949 a separate Harijan Welfare Department was started to look after the welfare of the Schedules Castes and Scheduled Tribes with the Collector as District Welfare Officer in Bombay State. One such hostel was also opened at Khanapur (Belgaum Dt.).

The Arya Samaj which started its activities in Bangalore in 1894, gradually took the form of a reformist body involving many active workers like M.Arya Murthy, and his wife H. Saraswathamma. They took up various social reform activities including the upliftment of untouchables. Brahmachari Ramachandra carried on ceaseless effort to organise the Harijan Sevak Sangha throughout the erstwhile Mysore State and the establishment of the Deena Seva Sangha at Bangalore and the Gurukula Ashram at Kengeri. A residential school "Abhayakuteera", with night classes for the Scheduled Caste and Scheduled Tribe children was started at Channapatna by Arya Murthy. N. Nanjundaiah of Doddaballapur worked for the cause of the untouchables and for long duration he was the Taluk President of Harijan Sevak Sangha.

After Independence, and particularly after reorganisation of state, the Government has streamlined the welfare programmes in an organised way for the advancement of Scheduled Caste and Scheduled Tribes mainly under three heading, namely, education, economic upliftment and health and housing schemes. Till 1999, the Department of Social Welfare was functioning in the State to implement various welfare programmes for both the Scheduled Castes and Scheduled Tribes. The Department of Tribal Welfare has been separated from the department of Social Welfare from January 1999, and is working for the development of Schedule Tribes. It has schemes similar to that of the Department of Social Welfare. Among the various programmes of these departments, the following are some of them.

- 1) During 1999-2000, 489 Nursery-cum-Women welfare Centres benefiting 25,950 Scheduled Caste children and 70 Schedule Tribe Centres benefitting 3,288 ST children, are functioning in the State to provide pre-primary education along with mid-day meals and two sets of dresses annually, and the amount spent on SCs upto December 1999 was Rs. 509.74 lakhs out of 708.15 lakhs provided upto the end of February 2000, Rs. 40.22 lakhs has been spent on STs.
- 2) Eighty-eight residential schools for Scheduled Castes and 94 Ashram schools for Schedule Tribes benefitting, 8,800 Scheduled Caste students and 5,725 Scheduled Tribe pupils respectively are functioning during 1999-2000 to provide education from the first standard to the fourth standard.
- 3) Pre-metric hostels are maintained by the Departments of Social Welfare and Tribal Welfare to provide boarding and lodging facilities to the Scheduled Caste and Scheduled Tribe students studying from 5th standard to 10th standard. During 1999-2000, there were 1044 such hostels run by the Department of Social Welfare benefitting 62,665 Scheduled Caste students, 1,071 Pre-metric hostels run by the Department of Tribal Welfare benefitting 2,835 Scheduled Tribe students. The amount spent on in 1999-2000 was Rs. 3,673.92 lakhs and Rs. 151.37 lakhs respectively. Besides, there are 289 and 16 Pre-matric aided hostels benefitting 15,332 SC students and 2835 ST students respectively. During 1999-2000 Rs. 21.74 lakhs and Rs. 18 lakhs has been spent by both the Departments respectively.
- 4) In order to provide boarding and lodging facilities for Scheduled Caste post-metric students, post-metric hostels are maintained by the Department of Social Welfare. There were 214 such hostels in the State during 1999-2000, benefitting 16,390 Scheduled Caste students with an outlay of Rs. 460.51 lakhs under certain norms. Apart from this 79 recognised post-matric grant-in-aid private hostels are run by voluntary organisations benefitting 7,040 post-metric students.
- 5) Besides metric and post -metric scholarships, merit scholarships and incentives are provided for Scheduled Caste and Scheduled Tribe students by both the Departments. Upto the end of 1999-2000 the number of beneficiaries under these schemes was, 2,85,866 and 92,403 SC and ST students respectively for pre-matric scholarship, and the amount spent on this was Rs. 218.49 and 78.54 lakhs respectively. Under the Post-metric scholarship scheme, 2,993 students from the Department of Social Welfare and 4,866 students from the Department of Tribal Welfare are benefitted during 1999-2000.
- 6) Four Special Employment Exchanges are there for the physically handicapped and one for SC/STs.
- 7) There are 6 University Employment Information and Guidance Bureaus to give vocational guidance and take up related activities.
- 8) Besides 47 Morarji Desai Residential schools, the Department of Social Welfare also maintains 4 Navodaya pattern residential schools at Channapatna, Bailahongal, Raichur and Mundaje. Rs. 15.8 lakhs have been spent on this scheme for the year 2000-2001.

The Department is also providing funds to impart training to SC students at Sainik Training School, Belgaum, for getting admission to Sainik school.

- 9) Prize money is being awarded to the Scheduled Caste and Scheduled Tribe students who secure first class in the first attempt in the Public Examination and under this scheme, upto to the end of December 1999/January 2000, the amount spent on this was Rs. 26.42 lakhs for SCs, and Rs. 5.49 lakhs for STs. Besides these, the other facilities like book banks, study tour and admission to Ramakrishna Ashrama for meritorious students to provide better education and such other educational facilities have been provided for the Scheduled Caste and Scheduled Tribe students by the Departments of both Social Welfare and Tribal Welfare.
- 10) During 1999-2000, Rs. 20 lakhs have been provided to extend fellowships to 127 Ph.D. students, at Rs. 10,000/- for Ph.D. and Rs. 8,000/- for M.Phil., and depute 5 meritorious SC students for higher studies in foreign universities.

In order to create healthy competition among SC and ST students and to encourage them for continuing education, merit scholarship are being awarded upto 9th standard. For those who secure more than 60% marks in the annual examination, the rate of scholarship is Rs. 75 per annum, for those students studying in 5th to 7th standard and Rs. 100, for those who are studying in 8th to 10th standard. During 1999-2000 Rs. 64.16 lakhs have been provided to the Department of Social Welfare, out of which a sum of Rs. 20.10 lakhs has been spent upto the end of December 1999, on this, benefitting 22,533 students. The amount provided for this scheme to the Department of Tribal Welfare during 1999-2000 was Rs. 17.07 lakhs out of which Rs. 7.03 lakhs has been spent upto the end of January 2000, benefitting 7,015 students.

Under the Centrally-sponsored scheme, the SC children of those engaged in unclean occupation like flaying, tanning, scavenging etc., are sanctioned scholarship and they are also admitted to the Government hostels with a view to providing education facilities. During 1999-2000 the number of beneficiaries under this scheme was 23 and the amount spent up to December 1999 on this was Rs. 0.22 lakhs.

Five Pre-Examination Training Centres are functioning in the State under the Centrally-sponsored scheme, two at Bangalore and one each in Gulbarga, Dharwad and Mysore to train Scheduled Caste and Scheduled Tribe candidates who intend to appear for various competitive examinations conducted by Karnataka Public Service Commission, Staff Selection Commission and other recruiting agencies. During the year 1999-2000, a sum of Rs. 29.31 lakhs was spent upto to the end of December 1999.

The Scheduled Caste and Scheduled Tribe candidates undergoing training in typewriting and stenography are sanctioned stipend ranging from Rs. 50 to Rs. 200 by the Department of Social Welfare. In addition to this, the fees at the prescribed rate is payable to the Institution by the Government. During the year 1999-2000 a sum of Rs. 3.11 lakhs has been spent upto December 1999, benefitting 492 candidates.

Under the self-employment scheme, foremanship is imparted to Scheduled Caste and Scheduled Tribe Diploma Holders in the field of Mechanical, Electrical and Metallurgical Engineering courses for a period of minimum three months upto two years for improving the employment opportunities. Each trainee will be sanctioned Rs. 500/- per month as stipend.



In order to train Schedules Caste women in various crafts, 61 tailoring training centres, eight Tailoring Production Units and one Lacquerware Training Centre at Channapatna have been run by the Social Welfare Department. Every year 1,395 women are being trained in these centres. The stipend of Rs. 150 p.m. per trainee is being paid by the Department. The Department is also supplying sewing machines free of cost to the successful candidates of tailoring training centres functioning under the Department. During the year 1999-2000, a sum of Rs. 107.37 lakhs has been spent upto the end of December 1999, benefiting 1,395 candidates. The two Departments are imparting training to law graduates belonging to Schedules Caste and Scheduled Tribes, for four years to acquire sufficient knowledge about judicial administration and during the training period a sum of Rs. 1,000 p.m. will be paid as stipend. Under this scheme, 100 SC and 100 ST candidates are to undergo training every year. To start their own law practice and also to enrol themselves in the Bar Council, the Government in another scheme, is assisting the unemployed SC and ST Law graduates by giving them Rs. 5,000 as lumpsum aid. An amount of Rs. 35.10 lakhs to Social Welfare Department and Rs. 15.97 lakhs to Tribal Welfare Department has been provided for these schemes for the year 1999-2000. In the year 1999-2000 the Tribal Welfare Department has spent Rs. 4.07 lakhs upto January 2000 benefitting 61 trainees.

Educated Youths are given occupational training, under Navachetana Scheme for enabling them to get employment or self employment. In this regard certain reputed institutions and private organisations have joined their hands, and are giving training to uneducated youths in different trades and also in computer work. Various courses in computer training are conducted. An amount of Rs. 40 lakhs was earmarked to benefit 600 SC students and an amount of Rs. 10 lakhs to benefit 125 ST students during 1999-2000.

Under the scheme of self-employment and training, the Schedules Caste and Scheduled Tribe unemployed candidates are encouraged to undergo three-months training in driving autorickshaws and light motor vehicles with a view to make themselves self-employed and the urban area students are paid monthly stipend of Rs. 150 and rural area trainees are paid Rs. 300 as stipend during training. Training fees to the driving schools are also paid by the concerned departments, as prescribed by the R.T.O. In 1999-2000 the number of ST beneficiaries were 33, by the end of January 2000.

Rs. 171.52 lakhs are being shared equally by the State & Central government to encourage inter-caste marriages, where one spouse belongs to SC, financial assistance of Rs. 25,000 is sanctioned to the married couples. This scheme is being implemented with an intention to remove untouchability. To compensate the victims of atrocities, assistance ranging from Rs. 2,500 to Rs. 2 lakhs is paid to the victims depending upon the nature of the loss sustained. An Amount of Rs. 50 lakhs has been spent upto the end of December 1999 under State Sector through the Department of Social Welfare.

The houses of Schedules Caste and Scheduled Tribe are electrified by sanctioning financial assistance of Rs. 500 per house. A sum of Rs. 13.00 lakhs to Social Welfare Department and Rs. 4.10 lakhs to Tribal Welfare Department has been provided for this scheme, during 1999-2000, to electrify 2600 SC houses and 820 ST houses respectively. The Department of Social Welfare has taken up a scheme of construction of hostel building on a massive scale in a phased manner. Seventy-three hostel buildings were completed with a cost of Rs. 14.583 lakhs during 1999-2000. Under Dr. Ambedkar Housing Scheme the

Department of Tribal Welfare, spends Rs. 20,000, per unit for construction of houses for Scheduled Tribes. In this, the Department of Tribal Welfare grants Rs. 19,000 and the Rural Development Department shares Rs. 1,000. This scheme is being implemented from 1997-98. The Department has sanctioned Rs. 26.60 crores for construction of 4,000 ST houses during the year 1997-98, and 5,000 houses during the year 1998-99. Including 1,600 houses of Urban area taken up in 1997-98, an amount of 12.70 crores have been provided during 2000-2001, to construct a total number of 6,600 houses. The Department of Social Welfare, during 1999-2000, targeted to construct 15,000 houses under this scheme for SCs. Totally 15,942 Ambedkar houses have been completed so far, including houses taken up prior to 1999.

Under vocational training programme, the Corporation is imparting training for TV/VCR, radio repairs and servicing, computer training, etc. for women. New programmes like pre-press technology/DTP, Fashion designing have also been started. During 1999-2000, the number of beneficiaries, assisted under this was 4,471, with an amount of Rs. 213.44 lakhs as subsidy.

A comprehensive integrated planned development effort, directed towards eradicating poverty among the Scheduled Castes is made by providing the much-needed basic infrastructure like water supply, irrigation, electricity, approach roads, housing sanitations, education etc., Thirty-nine development departments including Boards and Corporations are implementing the Special Component Plan by earmarking 15% of their annual budget. During 1999-2000 a sum of Rs. 44,276.79 lakhs has been provided under different heads of development departments towards this plan to assist 2 lakh SC families.

Under Integrated Rural Development Programme, at least 50% of the funds are to be utilised for Schedules Caste and Scheduled Tribes. Intensive development work on a phased manner was started during the Second Five Year Plan to improve the social and economic conditions of the Scheduled Tribes and also encourage their education under the Integrated Tribal Development Programme. According to 1991 Census, 55,000 families are in the top areas which are in the Districts of Mysore, Kodagu, Dakshina Kannada and Chikmagalur. There are 21 LAMPS (Large Sized Agricultural Multipurpose Co-operative Society) functioning in the Tribal areas of the State. During 1999-2000 there were 62,339 Scheduled Tribe members have been enrolled in these LAMP Societies. A Special Programme of Social Security Scheme (Life Insurance) to the Scheduled Tribes in the Integrated Tribal Development Programme has been sanctioned by the Government in the year 1992. According to this scheme, Tribals working as forest labourers between the age group of 18 to 60 years are provided insurance coverage to the extent of Rs. 25,000 to every member. Under this scheme, 82,589 Tribals are covered and Rs. 9.91 lakhs has been spent during 1999-2000.

### **Women and Child Welfare**

The Women and Child Welfare Movement received impetus with the spread of modern education, liberal thought and the social reform movements in Karnataka. Christian Missionaries did pioneering work in the field for female education by starting Mitralaya in 1842 in Bangalore. As early as 1881, the Maharani's high caste school was founded at Mysore by the efforts of Ambil Narasimha Iyengar to encourage female education. It became a college in 1901. During 1892, under the auspicious of the Literary Union,

M. Venkatakrishnaiah of Mysore initiated the discussion on the problem of Nautch girls and havoc caused by the licenced prostitutes and requested the members of the union to take a pledge not to encourage *tafes* (dancing during marriages) and thereby to put an end to Nautch system which was then in practice.

In 1894, the Mysore Infant Marriages Regulation, was passed and marriage of girls below eight years was banned. Shama Rao Vittal Kaikini, the renowned lawyer of Uttara Kannada district translated a book in widow marriage into Kannada. Ganapathi Bhat Akkadasa, a veteran fighter and social worker of the same district translated a book on widow marriage into Kannada. He strongly advocated widow marriages and he conducted more than 100 widow marriages till 1932. He also wrote books and articles on widow marriages. The civic and Social Progress Association of Bangalore arranged a lecture tour on widow marriage in the erstwhile Mysore State by Akkadasa in 1934, preceding the passage of Widow Marriage Act of the State. During 1906, Rukminiyamma and Srirangamma had the distinction of becoming the first women graduates of the Mysore University. During 1907, a widow Home was started in Mysore with the help of Darbar Bakshi Ambil Narasimha Iyengar. The Brahma Samaj through its comprehensive programmes of social reforms influenced many people in Bangalore. The members of the Samaj established a Girl's High School in 1872 in Ulsoor area in Bangalore. Divine Providence Orphanage was started in Belgaum in 1921 to cater to the needs of orphans and destitute children.

Many attempts were made in the erstwhile State of Mysore to promote the welfare of women and children through social legislation. Organisations in such other agencies are functioning in the State for the cause of women and children welfare. The Vanitha Sadan, the Bhagini Seva Samaj and the Mahila Sadan of Mysore, Abhaya Ashraya Destitutes Home of Mangalore, Akkana Balaga's at Bijapur and Hassan, Mahila Seva Samaj, Malleswaram Ladies Association, Basavanagudi Ladies Club and Sharada Stree Samaj of Bangalore, Vanitha Seva Samaj of Dharwad (1928) and Vanitha Vikasa Mandali of Gulbarga are some of the examples for this. There are a number of Orphanages functioning in the State in order to provide food, clothing and shelter to the orphan children and also to encourage education for them. In order to implement various welfare programmes for the benefit of women and children, the women and Child Development Department is functioning in the State. The Department is also incharge of implementing social legislation like Child Marriage Act 1929, Probation of Offenders Act, 1958, Dowry Prohibition Act 1961, Devadasi (Prohibition of Dedication) Act 1982, Juvenile Justice 1986, and Supression of Immortal Traffic (Amended) Act 1986. In Karnataka, the process of empowerment of women has been started with the reservations for women in Karnataka Panchayat Raj Act 1983 and 43.6% of Gram Panchayat seats have been allocated for women. Similar reservation has been made at Taluk and Zilla Panchayat level. Under the programme of Social Defence (Under the control of the Women and Child Development Dept.). During 1999-2000, 20 observation homes, 24 Juvenile homes, 16 Fit Person institutions, 11 Reception Centres, eight State Homes for women, two institutions for Mentally Retarded Women and nine Juvenile Service Bureaus are functioning in the State.

The Department is making an attempt to identify the sectors where women's participation is possible with a view to improving their status. Finacial assistance is provided to voluntary organisations, Government undertakings and Government-sponsored agencies

to start training-cum-production centres in order to assist women to take up income generating activities. During 1999-2000, 0.140 lakhs has been provided. There were fifty training -cum-production centres. The Department is encouraging women and girls from lower group to take up various Diploma Courses, Courses in ITI, Library Science, Secretarial Practice, Nursing etc. by providing financial assistance in the form of fees, scholarship and moral facility for the rural girls. During 1999-2000 an amount of Rs. 25 lakhs has been spent on such assistance. Destitute widows above the age of 18 years and whose annual income from all sources does not exceed Rs. 1,500 are eligible for a monthly pension of Rs. 100 per month.

Financial benefit is extended to widows for their re-marriage if they belong to a family whose family income is below poverty line. This benefit is also extended for Devadasis for their marriages. A sum of Rs. 5000 is granted to the Devadasis marriage and Rs. 10,000 for the widow re-marriage. During 2000-2001, Rs. 12.85 lakhs have been provided to 128 beneficiaries (widow re-marriage). For rehabilitation of Devadasis 0.65 lakhs have been provided to assist 425 Devadasis to take up self-employment activities. Besides, the Department is rendering financial assistances of creches for children of working mothers, this assistance is provided through Zilla Panchayat to non-government organisation and Mahila Mandals. During 1999-2000, financial assistance of Rs. 6.94 lakhs has been granted to 63 creches. Rs. 11.57 lakhs was sanctioned for the construction of ten working Women Hostels in the State and Rs. 5.86 lakhs for 117 Mahila Mandals at the rate of Rs. 5,000 per Mahila Mandal.

The scheme of Childrens Day celebration is modified as the 'Financial Assistance for the Education of Bravery Awardees' since 1995-96, till the completion of schooling. Financial assistance of Rs. 2,000/- is being given to the children, who are given bravery awards. During 1999-2000 an amount of Rs. 42,000 has been sanctioned to 21 bravery awardees. The government has instituted state awards for the best work done for atleast three years in the field of child welfare. During 1999-2000, an amount of Rs. 70,000 has been spent on this, for three Awardee Institutions. With an objective to promote education of the girl child from families coming under IRDP norms. Financial assistance is given since 1996-97, to a child, between the age group of 4 to 6 years. The initial Contribution is Rs. 2,500 at the age of five and the maturity value would be around Rs. 4,410 at the age of 18.

In order to promote child welfare the Integrated Child Development Services Programme (ICDS) is implemented by the Department. ICDS provides a package of supplementary nutrition, immunization, health check-up, referral services, treatment of minor illness, nutrition and health education, Pre-school Education to children in the age group of 3 to 16 years. During 1992-93 there were 142 'CDS' Projects in operation and the number of beneficiaries was 18,74,829. During 1999-2000, 185 projects are fully operationalised covering 175 taluks and 28,85,979 beneficiaries. Amount spent on this is Rs. 5,621.99 lakhs.

The Department is implementing the Special Nutrition Programmes to children in the age group of 0-6 years and nursing mothers living in urban slums and Tribal villages. Under this programme milk and bread or energy food is given to the beneficiaries, for 310 days in an year. During 1999-2000, a sum of Rs.5,603.94 lakhs have been spent upto 2,000, under this scheme covering 28,85,979 beneficiaries.

The financial assistance is given for the education of the children of Ex-Prostitutes, Ex-Devedasis, Drug addicts, alcoholics and Ex-Prisoners whose family income does not exceed Rs. 15,000 per annum, as education incentives from fifth standard until they attain the age of 20 years in case of girls and 18 years in case of boys. And during 1999-2000, upto the end of February 2000, there were 1,041 beneficiaries under this scheme for which the amount was Rs. 13.10 lakhs.

Attendance scholarship upto 10th standard will be provided for the girls from the rural areas whose family income is below Rs. 10,000 per annum and the girl must be resident of the village having less than 20,000 population. There were 55,250 beneficiaries under this scheme during 1999-2000, and a sum of Rs. 182.55 lakhs was spent on this upto the end of February 2000. Under the programme of extending financial assistance to registered voluntary organisation working in the field of child welfare is given to start cottages for a unit of 25 children for their care and maintenance. 303 destitute cottages functioning, were extended aid during 1999-2000. Upto the end of February 2000, expenditure incurred on this was 54.55 lakhs. The department is offering training for Anganawadi workers and also providing financial assistance for the construction of Anganawadi building to uplift ICDS programmes. During 1999-2000, a sum of Rs. 428.66 lakhs was ear marked, towards the construction of 857 Anganawadi buildings. During the year 2000-2001, Rs. 290.50 lakhs to construct 290 buildings at Rs. 50,000 per building has been provided.

#### **Welfare of the Disabled Population**

Welfare of the handicapped both physically and mentally has assumed greater importance in recent years. The Welfare of the handicapped was not given much importance by the Government of India before independence. However the Government of Mysore liberally assisted an educational institution started by an individual effort at Mysore for the deaf and dumb children in 1901 and the school was taken over by the Government during 1927. In 1936, a Printing Press was started in the Deaf and Dumb school at Mysore to produce the necessary brail books for the blind students. Since 1982 it is working as an independent establishment and it secured sophisticated machines by the assistance of the UNICEF. After independence, both the Central and the State Government have taken various measures to promote their welfare. Besides, many voluntary organisations in the State have started rehabilitation programme for the handicapped. According to 1981 provisional census, there were 18,106 totally blind, 19,011 totally crippled and 17,613 totally dumb in the state.

The Association of the Physically Handicapped was started in Bangalore in 1959 to provide training for the orthopaedically handicapped persons and to rehabilitate them. The activities of the Association include the maintenance of an integrated school, an Industrial Training Institute, an advanced training-cum-production centre, a home-bound programme and a training scheme in horticulture. The Red Cross Home of the Indian Red Cross Society was started in Bangalore in 1946 to provide specialised treatment and Vocational Training to the disabled Ex-servicemen. The Cheshire Homes India have branches in Mangalore and Bangalore where residential accomodation is provided for the disabled. The Rohini Physically Handicapped Society, Bangalore was set up in 1979 to rehabilitate the disabled persons, which is an ancillary units of the New Government Electric Factory.

The Welfare Programmes for the handicapped was vested with the Department of Women and Child Development and during 1988, the Department of Welfare of Disabled was created

to implement the various welfare programmes for the benefit of the handicapped effectively. There are four schools functioning under the department for the deaf children at Gulbarga, Mysore, Bellary and Belagaum. There were 338 children studying in these schools during 1999-2000. There are four schools for the blind under the control of the department functioning at Gulbarga, Mysore, Davanagere and Hubli, and there were 245 blind children, studying in these schools during 1999-2000. Besides, about 125 voluntary organisations were involved during 1999-2000 in the Welfare activities for the deaf, orthopaedically handicapped, mentally retarded and visually handicapped children in the State. These institutions were given financial assistance by the department. Some of the major schemes that have been implemented for the benefit of the handicapped were educational scholarships for the handicapped children, award prize money for the merited disabled students, self-employment scheme for disabled entrepreneurs, hostel for disabled employees and trainees, distribution of aids and appliances to the disabled persons, scheme for setting up of telephone booths for disabled under the Centrally-sponsored Rajeev Poornanga Yojana and monthly financial assistance of Rs. 100 p.m. for disabled persons. This department is providing financial assistance to the Vocational Training Centres in various Districts like Kolar, Gulbarga, Chitradurga, Bidar and Bijapur. The Government of India has instituted seven awards and the Government of Karnataka have instituted an award for outstanding work for the cause of disabled institutions and individuals every year.

#### **Other Welfare Schemes**

The Karnataka State Government has introduced various schemes like Old Age Pension Scheme, Pension for Freedom Fighters and Destitute Widow Pension Scheme.

The Old Age Pension Scheme was initiated in the State during 1964-65. Initially the qualifying conditions for the sanction of the old age pension required that a person should be aged 70 years and above, not having sons or grand-sons aged 20 years or more. Subsequently it has been relaxed from time to time and at present the minimum age limit is 65 years for destitutes and no age restriction for the physically handicapped and mentally retarded persons.

Initially the rate of old age pension was Rs. 15 per month which has been subsequently raised to Rs. 75 and at present it is Rs. 100 per month. The total number of beneficiaries was 4,86,784 old age pensioners, 5,44,530 widow pensioners and 3,19,491 disabled pensioners during 1999-2000

The scheme for the grant of pension to Freedom fighters and the widows of Freedom fighters was introduced by the Government of Karnataka in 1968, and initially the monthly pension was Rs. 50 per month. This has been revised subsequently and the rules for getting the pension have also been revised. The Government of India has introduced a scheme for grant of pension for freedom Fighters in 1972. The rate of pension is raised from Rs. 750 to Rs. 1,000 per month from September 2000 under the State Scheme. The number of beneficiaries upto December 2000 was 19,736 under the State Scheme.

A maintenance allowance of Rs. 100 per month is paid to the physically and mentally handicapped persons for those whose family income is less than Rs. 6,000 per annum. During 1999-2000, a total of 3,18,661 persons were benefited under this scheme upto January 2000.

Under the schemes of 'Sadhane' and 'Prathibhe', encouragement is given to the disabled persons to promote sports and cultural activities. During 1999-2000, the amount spent on this till January 2000, was Rs. 15.00 lakhs.

The number of beneficiaries under various schemes and the amount spent on that during 1999-2000 are as follows : Scholarships for the physically handicapped students studying from first standard to university is extended to 21,000 persons, and out of Rs. 115.02 lakhs provided, the amount spent upto January 2000 was Rs. 42.46 lakhs. The supply of aids and allowances for the disabled persons under rehabilitation programme was providing 612 tricycles and 3,500 other appliances which included wheel chairs, calipers and braille watches. The Insurance scheme for the mentally retarded was extended to 795 persons, the amount provided being Rs. 2 lakhs.

The Government has also set up Corporations for the upliftment of Scheduled Castes, Scheduled Tribes, Backward Classes and Minorities and for the Development of Women and Children. The department of Backward Classes and Minorities was constituted in October, 1977. Since 1998, the Schemes related to the group of Minorities are seperated and implemented through the Department of Minorities, which have started functioning from May 1999. Four Morarji Desai Schools have been sanctioned in Shimoga, Bellary, Belgaum and Hubli to provide better education to minorities students studying in 5th to 10th standard.

The Department of Backward Classes has many more schemes similar to that of the Department of Social Welfare. During 1999-2000, this department is running 187 post-matric hostels with a sanctioned strength of 12,065; 1,129 pre-matric hostels with 58,065 sanctioned inmates; 22 Morarji Desai/ Navodaya Residential Schools with 3,900 sanctioned inmates; 45 women welfar centres with 2,250 sanctioned inmates; 48 Tailoring Training Centre with 960 sanctioned inmates; 84 Ashram Schools with 3525 sanctioned inmates. The number of private organisations which are getting aid through this Department are 41 Minorities hostels with 2,075 inmates, 201 private aided pre-matric hostels with 9,826 inmates; 99 orphanages with 11,542 inmates. Besides, sanction of pre-matric scholarships, post-matric scholarships, sanction of cash awards and incentive awards to meritorial students, extra boarding and lodging charges to those who have not secured the hostel facilities, fee concession, pre-coaching to IAS students etc., are the other benefits extended through the Department of Backward Classes, to the students belonging to backward classes and for the present to minority groups also. During 1999-2000, the number of students benefited under the scheme of pre-matric scholarship is Rs. 2,55,769, post-matric scholarship is 91,621; under extra boarding and lodging charges, is 5,902; fee concession is 1,67,340, pre-coaching to IAS is 11. Diploma/Post-Diploma in foremanship training; driving training; job orientation training and the Ganga Kalyan irrigation plan are some of the important schemes implemented through the Department of Backward classes and Minorities and the two corporations.

There are many voluntary organisations in the State, working for the cause of various sections of the people of the Society like Scheduled castes, Scheduled Tribes, Women and Children, the Aged Persons and the Disabled. Many of the institutions are also getting financial assistance from the Government Organisations like Rotary, Lions, Innerwheel, Jaycees and YMCA are actively functioning in the State involving themselves in various ameliorative activities.



## Chapter XIII

# CULTURE

**K**arnataka's cultural heritage is rich and variegated. Kannada literature saw its first work from the 9th Century and in modern times it has created seven winners of Jnanapeetha Award for their literary talents. Literary activity in other languages of neighbouring areas in this state and purely local languages like Tulu and Kodava is also considerable. Journalism in Kannada has its history dating back to 1843 and has many achievements to its credit. Karnataka has thrown up outstanding men in histrionic talent. In the musical map of India, the State has bright spots, whether it is Hindustani or Karnatak, the latter having originated in this land. In the field of dance and art too Karnataka has creditable achievements. Yakshagana is both a folk and elite art that is flourishing here. The State's tradition in folk arts is also colourful.

When one thinks of the cultural scene, Shivaram Karanth, Kuvempu, Dr. Rajkumar, Maya Rao, Mallikarjuna Mansur, T. Chaudiah, K.K.Hebbar, Gangubai Hangal, B.V. Karanth U.R. Anantha Murthy, Girish Karnad, Chandrashekar Kambar are a few bright faces that shine forth. An attempt is made to survey the cultural pageant of Karnataka in this chapter.

### Kannada Literature

Kannada literature has a history dating back to at least 1500 years. This apart, the folk literature which began earlier, still runs parallel to the written form. Seygotta Sivarama's 'Gajashtaka' is cited as an example of early folk literature. The oldest available work in Kannada is however, a book on poetics, called 'Kavirajamarga'. Some controversy surrounds this work regarding the authorship, but the consensus is that it was written more likely by Srivijaya than king Nripathunga. The work not only discusses figures of speech like 'rasa' and 'dhwani', but also gives descriptions of the geographical boundaries of Karnataka, as well as its life and culture.

Thumalacharya is credited with having written 'Chudamani', a philosophical work, much earlier. But the earliest Kannada prose work is Sivakotiacharya's 'Vaddaradhane' which even to this day is considered a masterpiece. It is a collection of 16 Jaina stories. These seem to have been based on an earlier Prakrit commentary called 'Bhagavathi Aradhana'.

Pampa's 'Vikramarjuna Vijaya' based on 'Mahabharatha' and written in Champu style, which is a mixture of prose and poetry, unique to Kannada, is the earliest epic work in Kannada. Pampa's influence on Kannada literature is so deep that T.N.Srikantiah speaks of him as the Kalidasa of Kannada. Being a Jaina poet, he also wrote 'Adipurana' based on Jinasena's 'Mahapurana'.

Ponna who wrote 'Shanthipurana', and Ranna's 'Gadayuddha' have earned them immortality as poets, were also Jainas. They lived in the 10th Century. Nagavarma II who belongs to the next century was also a Jaina poet and wrote 'Kavyavalokana', a book on poetics, and 'Karnataka Bhashabhushana' a Kannada grammar in Sanskrit. His 'Vardhamanapurana' was discovered only recently. Janna, a Jain poet again, wrote 'Yashodhara Charithe', a love story. Durgasimha, in 11th century, wrote 'Panchatantra' based on Vasubhaga's Sanskrit work, and it is a classic example of the ancient art of story



telling. Rudrabhatta wrote 'Jagannatha Vijaya' based on 'Vishnu Purana'. The last two were Brahmin poets.

The 12th century saw a sea of change in Kannada literature both in content and style. What caused this is the growth of Veerashavaivism which was essentially revolutionary in approach. It derecognised untouchability and saw women as equals. It liberated Kannada from the clutches of Sanskrit. The moving spirit behind this movement was Basaveshwara, who was a minister in the court of Prince Bijjala. His Vachanas which can be called prose-poems, have their moorings in folk-literature and folk-culture, and yearn to liberate man from the bondage of untruth and ignorance. They seek to provide happiness here and elsewhere. Allamaprabhu, Akkamahadevi, Channabasavanna, Siddarama, Madivala Machayya, Dohara Kakkayya, etc., were other Vachanakaras.

After Basavanna, the greatest influence on Kannada literature was Harihara, who used an innovative form called 'Ragale'. His 'Basavarajadevara Ragale' and 'Nambiyannana Ragale' are the examples of this genre. His nephew Raghavanka introduced yet another form of poetry called 'Shatpadi' and apart from 'Somanatha Charithe' and 'Siddarama Charithe' and his 'Harischandra Kavya' is considered to be a masterpiece.

The Sixteenth Century saw Veerashaiva poets of extraordinary merit. Sarvajna who was real Vairagi in that he had no settled home, and no religion, wrote 'Sarvajna Padagalu' in Vachana style. This work is really a compendium of wit and wisdom. Nijaguna Sivayogi who was a ruler, saint and scholar wrote 'Viveka Chintamani' an encyclopedia in Kannada.

Dasakoota or the Vaishnava movement was led by Purandara Dasa, who is also considered the father of Karnatic music. Through his Keerthanas, he propounded the Dwaitha Philosophy and gave an impetus to Bhakthi movement. Kanaka Dasa, though hailing from the Kuruba community, followed in the footsteps of Purandara Dasa.

Karnataka culture reached its zenith during the Vijayanagara empire. Naranappa's 'Karnataka Bharatha Kathamanjari' or 'Gadugina Bharatha' as it is popularly known is the finest example of the literature of this period. This was followed by Lakshmisha's 'Jaimini Bharatha' which is also an immensely popular work. Chamarasa's 'Prabhulingaleele' is another notable work of this period.

Post-renaissance movement saw a four-lined folk-metre called 'Sangatya' which was particularly suitable for singing. Nanjundakavi who wrote 'Kumararamana Kathe' proved its multi-dimensional application. But it was Rathnakaravarni who, in 'Bharathesha Vaibhava', explored its full potential.

The Wodeyars of Mysore gave a boost to Kannada literature. Particularly noteworthy is Chikkadevaraja Wodeyar's period from 1672 to 1704. He himself wrote 'Chikkadevaraja Binnapa'. Tirumalaraya's 'Chikkadevaraja Vijaya' has Mysore history as its theme and is in Champu style. Singararya's 'Mitravinda Govinda', translated from Harsha's 'Rathnavali' is considered to be the earliest Kannada play. Another noteworthy poet of this period is Honnamma who wrote 'Hadibadeya Dharma' in Sangatya metre.

Mummudi Krishnaraja Wodeyar continued the tradition of his predecessor. Kempunarayana's 'Mudramanjusha' deserves a special mention. Wodeyar also started the

Raja's English School (1833) and this along with the expansion of Missionary activities, increased the Western influence on Kannada literature.

Chamaraja Wodeyar's period saw a new era in Kannada literature. M.S.Puttanna's 'Madiddunno Maharaya', D.Venkatachalayya and Dr.B.V.Venkateshaiyya's detective stories like 'Parimala' and 'Arindamana Sahasagalu', Galaganatha's social and historical novels, Kittel's dictionary, Cha.Vasudevarayya's 'Bala Bodhe' belong to this period. Muddanna's 'Ramashvamedha' is an epic episode in prose. This has a tinge of modern writing. Translated novels by B.Venkatacharya and Galaganath, mostly historical made a deep impact on readers.

In 1921, Professor B.M.Srikantayya heralded the 'Navodaya' movement. His 'English Geethagalu' was a free rendering of some great English poems. Around this period, and unknown to him, K.V.Puttappa (Kuvempu) had switched over from English writing to Kannada and the culmination of his work was 'Sri Ramayana Darshana' written in blank verse. Puttappa's social novels such as 'Malegalalli Madumagalu' are equally well acclaimed. Among the works of the thirties, D.V.Gundappa's 'Manku Thimmana Kagga' stands out as a jewel. It is considered to be unique in the sense that it contains ethical principles, philosophic truths and experiences of life. Samsa wrote many plays in Halegannada, of which 'Vigada Vikramaraya' is the best example.

It is interesting to note that except U.R.Ananthamurthy and Girish Karnad, all the five of the seven Jnanapeeta awardees in Kannada, Kuvempu, Da.Ra Bendre, Shivarama Karantha, Masthi Venkatesha Iyengar and V.K.Gokak have been writing since the Navodaya period. Da.Ra. Bendre won the award primarily for 'Naku Thanti' a metaphysical poetic work but his popularity is based more on his writings drawn from folk culture. Shivarama Karantha still remains one foremost prolific writer, and his writings range from encyclopedia to novels, essays, drama and poetry. 'Marali Mannige' is his oft-mentioned novel, but 'Bettada Jeeva' 'Chomana Dudi' and 'Kudiyara Koosu' are also noteworthy. His works mirror the cultural ethos of Dakshina Kannada. Masthi Venkatesha Iyengar is primarily noted as short story writer, his 'Chennabasava Nayaka' and 'Chikaveerarajendra' are historical novels dealing with degeneration of monarchy, and 'Subbanna' is a long story which reaches metaphysical heights. V.K. Gokak began as a Navodaya poet but his *magnum opus* is 'Bharatha Sindhu Rashmi' which seeks to find answers for the modern man's dilemmas in ancient epics. Significantly, Anantha murthy's 'Bhava' also seeks inspiration from traditional wisdom.

K.S. Narasimha Swamy's 'Mysora Mallige', a collection of poems with love and separation as the theme is a landmark of the Navodaya period. G.P. Rajarathnam's 'Rathnana Padagalu' perhaps stands unique in world literature in seeing truth a beauty in drunken man's gay gibberish. Pu.Thi. Narasimhachar's 'Gokula Nirgamana' has Krishna's separation from Radha as its theme, and this again reaches spiritual heights. Gorur Ramaswamy Iyengar chose the easy form to portray the life of rural Karnataka his 'Halliya Chitragalu' is considered the supreme example of his writings. His tradition was continued by A.N.Murthy Rao in 'Hagaluganasugalu' and M.R.Srinivasa Murthy in 'Rangannana Kanasina Dinagalu'.

The period also saw a spurt of literary criticism. Of these T.N. Srikantaiya's 'Bharathiya Kavya Meemamse' is considered to be a classic. A.R. Krishna Shastry nurtured a whole generation of writers through 'Prabuddha Karnataka', a periodical brought out by the Kannada Sangha of the Central College. S.V.Ranganna, an English Professor, who had by this time

established himself as a Kannada writer through 'Ranga Binnappa', wrote on literary criticism in 'Shaili' and 'Ruchi'. V.Sitaramayya's output varied from 'Hana Prapancha', an economic treatise, to 'Pampa Yathre' a travelogue, to host of writings, from poetry to literary criticism. R.S. Mugali wrote 'Kannada Sahitya Charithre', a succinct and balanced history of Kannada Literature.

In the mid-forties the Navodaya movement gave way to Pragathisheela Chalavali. A.N. Krishna Rao was the torch bearer for this. The movement brought writers from their ivory tower to the common man. Though Anakru's short stories are better examples from this genre of writing, than his novels, he is mainly noted for his novels such as 'Sandhya Raaga', 'Udaya Raaga', 'Nata Sarvabhuma', 'Grihini' and 'Kanneeru'. Basavaraja Kattimani, hailing from North Karnataka, wrote 'Nee Nanna Muttabeda', 'Shivadara Janivara' and 'Nanoo Polisanagidde' portraying the netherworld behind the facade of Kaavi and Khaki. Ta.Ra.Su started as a progressive writer with novels like 'Parijatha', 'Masanada Hoovu' and 'Munjavinda Munjavu' found his forte in historical novels woven around his birth place Chitradurga, and 'Durgasthamana' is the finest example of his writing. Niranjana who was an active communist during freedom struggle wrote such down-to-earth novels as 'Doorada Betta' and 'Rangamma Vathara' as well as 'Chirasmarane' based on agrarian movement, but his magnum opus is considered to be 'Mrityunjaya', dealing with Egyptian history.

Chaduranga who inspite of his close relationship with the Mysore Royal family was a rebel and wrote 'Sarvamangala' and 'Uyyale' both dealing with extra-marital love. Interestingly, his 'Vaishaka' written many decades later also deals with extra-marital relationship in a rural setting.

Among the women writers Triveni, whose novels like 'Bekkina Kannau', 'Sharapanjara' and 'Mucchida Bagilu' were essentially psycho-analytical, Anupama, who drew themes from her rich experience as a medical practitioner in stories like 'Aranyadallondu Aragini', and M.K.Indira whose forte was the portrayal of Malnad life in novels such as 'Phaniyamma' were all offshoots of the Progressive movement.

Next to the progressive movement was the Navya movement. This was influenced mostly by the post-war writers like T.S.Eliot, Auden, Ezra Pound, D.H.Lawrence, Sartre and Camus. Gopalakrishna Adiga was the foremost exponent of the Navya movement and his 'Bhoomi Geetha' is said to have been influenced by T.S.Eliot's 'Waste Land'. P. Lankesh's collection of stories 'Kurudu Kanchana' and his absurd play 'Teregalu', Srikrishna Alanahalli's long story 'Kadu', Shanthinatha Desai's 'Vikshepa', Poornachandra Tejaswi's 'Nigoodha Manushyaru', Nisar Ahmed's poem like 'Masthi', 'Ramanu Sattha dina', U.R. Ananthamoorthy's stories like 'Prashne' and 'Clip Joint', Yeshwanth Chittala's 'Shikari', Vyasaraya Ballala's 'Bandaya' are some examples of the new writing in Kannada. Chandrashekara Kambara and A.K. Ramanujan widened the frontiers of Navya poetry. Kambara has a good command on the diction and tunes of the folk poetry, like Bendre, but who used them to embody the tensions of life caught between tradition and a new culture. He has made a mark as a poet, a novelist and a dramatist. His 'Jokumara Swamy' besides other awards, has won the prestigious Kamaladevi Chattopadyaaya Award. It is a hit play, with liveliness, good song and gaiety. A.K. Ramanujan, a remarkable poet, presented clear, vivid pictures with an apparent casualness.

S.L.Byrappa who shot into fame with his 'Vamshavriksha' is one writer who has scrupulously avoided confining himself into any frame. Some of his celebrated works are 'Anveshane', 'Grihabhanga', 'Thabbaliyu Neenade Magane', 'Daatu' and 'Thanthu'.

Post-Navya writing is sometimes called as Navyotthara Sahitya or Bandaya Sahitya, or even Dalita Sahitya. The writers belonging to this movement are of the firm view that only Dalits can authentically write about their trials and tribulations, and anything written by others, however, impressive it might be, will still remain second-hand experience. Still, it is interesting to note that Devanuru Mahadeva who does not like to classify himself into this or that group or 'ism' has given some of the finest Dalit literature. His 'Odalala' and 'Kusuma Bale' have won many laurels. Chennanna Valikar and Siddalingaiah are another notable Dalith writers. B.T. Lalitha Nayak, Aravinda Malagatti and Geetha Nagabhushana are other important writers who are identified with their notable dalith works. G.Venkataiah of Maddur Taluk had written some books in 1940 itself highlighting the pains and pleasures of Dalit people even before there was any such movement.

The Feminist movement began after the Dalit movement. Women writers started writing independently about their own experiences that had quite a different dimension. They not only questioned the male supremacy in society but also tried to bring about equality with men. The works of R. Kalyanamma, who published 'Sarswathi' a montly for 42 years, Nanjanagudu Tirumalamba who published 'Sathi Hithaishini' and then 'Karnataka Nandini', Sarawathi Bai Rajawade (Giri Bale) who had new attitude and a vision of modern education for women, Kodagina Gouramma, Belagere Janakamma, Shyamala Devi Belagaumkar and the like, gained prominence in 80's and after, through the feminist writers of this movement. 'Phaniyamma' by M.K. Indira, 'Itigeetike' by Vijaya Dabbe, 'Gandasuru' by Veena Shanteshwar, 'Sahana' by Sara Abubakar, 'Seetha Rama Ravana' by H.V. Savitramma', are some such quotable writings. The 'Karnataka Lakhakiyara Sangha' a feminist writers organisation founded in 1978, played an important role in giving a feminist touch to social values and also in mirroring them in the writings of women. 'Streevahi Praveshike' edited by B.N. Sumitra Bai and N. Gayathri is noteworthy. Many women writers wrote books on different fields from a womens' points of view. Among them mention may be made for their writings and related activities of Hemalatha Mahishi (Law), H. Girijamma and Leelavathi Devadas (Health), Vijaya and S. Malathi (Theatre), Namichandra (Science and Fiction) and Vaidehi (Fiction). B.N. Sumithra Bai, Vijaya Dabbe and many others are good feminist critics. (The list is not exhaustive.) Feminist poets are large in number. Following this movement, discussions, seminars, workshops and conferences were held on the questions of women and feminism at all levels in the State. 'Women Studies' was introduced as a subject for students of degree level, first in NMKRV College Bangalore and then in almost all Universities of the State.

Any survey of Kannada literature would be incomplete without the mention of some writers, who while not specifically representing this or that school were still successful in drawing enormous number of readers towards them. Krishnamurthy Puranika is one such. At one time, his novels like 'Dharmadevathe' which faithfully depicted the middleclass life of old Mysore or Hyderabad Karnataka or Mumbai Karnataka were a rage among women readers. Likewise, N.Narasimhayya who wrote detective stories under the series 'Patthedara Purushotthamana Sahasgalu' was so successful that the series exceeded one hundred. He

was never seen in any literary meet, it is doubtful if he ever got invited, nevertheless his books did inculcate the reading habit in school boys. M. Ramamurthy of Mandya District continued such type of writing of detective novels.

At the other end of the spectrum, we find the B.G.L.Swamy who blended humour and science writing so effectively that his 'Hasiru Honnu' about the botanical wealth around us, remains a classic many decades after its publication. His 'Kaleju Ranga' and 'Kaleju Tharanga' are master peices of humour, dealing with his experiences as College teacher. 'Thamilu Thalegala Daduve' is a scholarly work which takes in its sweeps subjects like archaeology is venerated with deceptive humour.

In the sphere of drama, Girish Karnad's plays and performances are worth encore. His 'Tugalaq' and 'Nagamandala' with all its dramatic elements and high thoughts, made a big impact. 'Hayavadana' and 'Agni mattu male' are also notable plays. Karnad has given many plays drawing profusely from history, folk lore and epics. Along with the above plays, 'Kacha Devayani' also may be cited as an example for this.

Similarly there are writers like C.K.Nagaraja Rao, Ma.Na.Murthy, Devudu Narashimha Shastry and K.V. Iyer who have scholarly novels like 'Pattamahishi Shanthala', 'Shanthala', 'Mahabrahmana' and 'Mahakshatriya', and 'Rupadarshi'.

Travelogues are far too many even to make a brief mention. However Karanth's 'Apoorva Paschima', A.N. Murthy Rao's 'Apara Vayaskana America Yathre', Goruru's 'Americadalli Gorur', popular detective story writer T.K.Rama Rao's 'Golada Melondu Suttu', N. Lakshminarayan's 'Nirdeshakana Videsha Yathre', D. Javere Gowda's 'Videshadalli Nalku Vara', Krishnananda Kamat's 'Naanoo Americakke Hogidde', Navarathna Ram's 'Pyarissininda Preyasige', K. Anantharamu's 'Udaya raviya nadinalli', Susheela Koppar's 'Paduvanada Pathramale' may be cited as examples.

This can at best be only a cursory glance or bird's-eye view of Kannada literature through many centuries. Omissions will be far too many. Nevertheless, what has been given encompasses some of the best reading in Kannada language.\*

#### **Gnanapitha Award Winners**

1. K.V. Puttappa (1967), 2. D.R.Bendre (1973), K. Shivaram Karanth (1977), 4. Masti Venkatesh Iyengar (1983). 5. V.K.Gokak (1990), 6. U.R. Ananthamurthy (1994). 7. Girish Karnad (1998)

#### **Central Sahitya Academy Award Winners**

1. K.V. Puttappa (1955), 2. R.S. Mugali (1958), 3. D.R.Bendre (1958), 4. K. Shivarama Karanth (1959), 5. V.K.Gokak (1960), 6. A.R. Krishna Shastri (1961), 7. Devudu Narasimhashastri (1962), 8. B. Puttaswamaiah(1964), 9. S.V. Ranganna (1956), 10. P.T. Narasimhachar (1966), 11. D.V. Gundappa (1967), 12. Masti Venkatesh Iyengar (1968), 13. H. Thipperudraswamy (1969), 14. Sham.Ba.Joshi (1970), 15. Shriranga (1971), 16. S.S. Bhoosanuru Matha (1972), 17. V. Seetharamaiah (1973), 18. M. Gopalakrishna Adiga (1974), 19. S.L. Bhyrappa (1975), 20. M. Shivaram (1976), 21. K.S. Narasimhaswamy (1977), 22. B.G.L.Swamy (1978), 23. A.N. MurthiRao (1979), 24. Goruru Ramaswamy Iyengar (1980), 25. Channaveera Kanavi (1981), 26. Chaduranga (1982), 27. Yashavantha Chittala (1983),

28. G.S. Shivarudrappa (1984), 29. Ta.Ra.Su (Subbarao) (1985), 30. Vyasaraaya Ballala (1986), 31. K.P.Purnachandra Tejasvi (1987), 32. Shankara Mokashi Punekar (1988), 33. Devanuru Mahadeva (1989), 34. S.V. Parameshwara Bhatta (1990), 35. Ha.Ma.Nayak (1990), 36. Chandra-shekara Kambara (1991), 37. H.S.Venkatesha Murthi (1991), 38. Su.Ram.Yakkundi (1992), 39. Saraswathi Gajanana Risbud (1992), 40. P.Lankesh (1993), 41. Kirthinatha Kurthakoti (1993), 42. Girish Karnad (1994), 43. Pradhan Gurudatta (1994), 44. Thippeswamy (1995), 45. G.S.Amura (1996), 46. M.Chidananda Murthy (1997), 47. B.C.Ramachandra Sharma (1998), 48. D.R. Nagaraj (posthumous 1999) and Shantinatha Desai (posthumous 2000).

#### **Pampa Award Winners**

1. K.V. Puttappa (1987), 2. T.N. Shreekanthaiya (1988), 3. K. Shivaram Karanth(1989), 4. S.S. Bhoosanurumath (1990), 5. P.T. Narasimhachar (1991), 6.A.N. Murthi Rao (1992), 7. M. Gopalakrishna Adiga (1993), 8. Sediya pu Krishna Bhatta (1994), 9. K.S. Narasimhaswamy (1995), 10. M.M. Kalburgi (1996), 11. G.S: Shivarudrappa (1997), 12. D. Javare Gowda (1998), 13. Chennaveera Kanavi (1999), 14. L. Basavaraju (2000)

#### **Rajyothsava Award Winners**

To bring progress in different aspects of culture of the State, the Government is recognising the good work done by the scholars and artistes and is encouraging them with Rajyothsava Awards, on the Rajyothsava Day, every year. Upto 2,000 a total number of 1210 have been honoured with this Rajyothsava Awards.

#### **Dana Chintamani Atthimabbe Award Winners**

1. T. Sunandamma (1995), 2. Shantadevi Malavada (1996), 3. Vaidehi (1997), 4. Kamala Hampana (1998), 5. Mallika (1999) and 6. Jayalakshmi Srinivasan (2000).

#### **Jaanapada Shree Award Winners**

1. S.K. Karim Khan (1994), 2. Kamsale Mahadevaiah (1995), 3. Yedramanahalli Doddabharamappa (1996), 4. Phakiravva Gudisagara (1997), 5. Hiriyadka Gopala Rao (1998), 6. Sukri Bomma Gowda (1999), 7. Takkalike Vitthala Rao (2000).

#### **Karnataka Sahitya Academy Awards**

Karnataka Sahitya Academy is sanctioning Annual Awards to those renowned litterateurs and other personalities in recognition of their services towards promotion of literature and culture. Since its inception, Academy has honoured 195 persons.

#### **Tulu Language and Literature**

Tulu is one of the rich and ancient languages of the Dravidian family. Tulu speaking people are called Tulavas mostly found in Dakshina Kannada and Kasargodu Dt. of Kerala. Tulunadu is bounded by the Kalyanapura river in the North, Arabian sea in the west, Western ghats in the east and the Payaswini/Chandragiri river in the south.

Tulu has its own linguistic peculiarities and shares a number of common features with Kannada and other Dravidian languages. Tulu has a very vast folk tradition which has its own peculiarities. Folklore in Tulu is mainly found in the form of Paddanas, Sandi, Kabita, Uralu, Padipu, Nritya-padya, Gadi, Ogatu, Jogulo, Ajjikathe etc.,

Tulu Brahmins are generally educated people in the Vedas and Shastras. Their folk songs are based on the episodes in the epics 'Ramayana' and 'Mahabharatha'. Among the lower castes and untouchables the Bhuta dance tradition is prevalent.

When compared with other Dravidian languages, Tulu has a very little classical literature. During the past 150 years, Tulu has adopted the Kannada script for its literary works. Even though the works of Tulu literature initiated by the Basel Mission Christians were only translations of the teachings of Christianity in the beginning, a few important works like the Tulu English Dictionary etc., were published later. Collections of their folk songs etc., and histories of Dakshina Kannada and Tulava Culture were also published. Works on Tulu Grammar, dialect and a doctoral theses on the structure of Tulu verb transformational analysis were published in the latter half of the Twentieth Century. The Kerala and Karnataka governments have helped in developing lexicons and text books of Tulu. Many Kannada plays of Yakshagana and many religious works also have been translated into Tulu. Notable early writers of Tulu literature are Sankayya Bhagawat, Sheenappa Hegade, K.B. Narayana Shetty and M.V.Hegde. S.U.Phaniyadi established the Tulu Mahasabha in Udupi in 1928. This gave great boost to Tulu literature and culture. It led to a linguistic-cum-cultural movement in Tulu.

The Tulu theatre and drama developed during this period. K.Doddanna Shetty, K.N.Tailor, Rama Kirodiyan, U.R. Chandar, K.B. Bhandari, Machendranath, Ramananda Churya, Sitaram Kulal, P.S.Rao, Vishu Kumar etc. were the pioneers of the Tulu Theatre. The beauty of Tulu idioms, proverbs and expressions is very well represented in the social activities of this period. Yakshaganas, the spectacular folk dances of Karnataka are becoming popular even in Tulu now-a-days. In recent years, Tulu poets like Amrita Someswara, Anatharam Bangady, Purushottama Punja, Nityananda Karanth, Ashok A. Shetty, K.Shekar.V.Shetty, G.Bayaru, madhukumar and A.N.Shetty have composed Tulu Yakshagana epics. There are some organisation which are working for the propagation of Tulu language and culture. Tulu Koota of Mangalore is one such organisation. A few Tulu journals are also being brought out.

Many other poets have made a name in Tulu literature. The notable among them are Mandara Keshava Bhat (his 'Mandara Ramayana' is a wonderful epic), Venkataraju Puninchittaya, P.V.Acharya, Ramakrishna Achar, Dumappa Master, Vamana Nandavar, K.V.Ravi, Tilakanath Manjeshwar, Ratna Kumar, Yeshwantha Bolur, Bhaskar Rao, Sitaram Kulal, Sitaram Alwa and Bannanje.

Three Tulu classics in Grantha script, each of them more than 200 years old have been found in palm manuscripts. They are 'Tulu Bhagavato' (by Vishnu Tunga) 'Kaveri' and a prose work 'Devi Mahatme'.

Many scholars are engaged in research on Tulu language, culture and folklore of the Tuluvas. They are D.N.S.Bhat, S.N.Bhat, M.Rama, S. Malklikadevi, U.P. Upadhyaya, William Madta, T. Gopalakrishna Bhatta, Sediypu Krishna Bhatta, A. Acharya, Venkataraju Puninchattaya, Vivek Rai, Amrita Someshwar, Sushila Upadhyaya, Chinnappa Gowda, K. Padmanabha Kekhunaya and other young scholars. Some of the works on Tulu linguistics and folklore brought out are: 'A comparative study of Tulu Dialects', 'Tulava Darshana', 'Folk epics of Tulunadu', 'Tulu Janapada Sahitya', 'Bhutaaraadhane', 'Tulu Baduku', 'Paaddanagalu', 'Janapada aaradhane Mattu Rangakale', 'Karaavali Jaanapada', etc. Tulu Academy was founded by the State govt. in 1994.

#### **Tulu Academy Award Winners**

1995-96 : Kedambadi Jattappa Rai and Mandara Keshava Bhat; 1996-97 : Ku.Shi. Haridasa Bhat, Keranji Seetharama Alwa, Mijar Annappa, B. Rama Kerodian; 1997-98 :

Sunitha M. Shetty, Suryanatha U. Kamath, K.N. Tailor, Malpe Shankaranarayana Samaga; 1998-99 : Amrita Someshwara, Venkataraj Punichittaya, Mankude Sanjeeva Shetty, M. Leelavathi; 1999-2000 : U.P. Upadhyaya, Kudakari Vishwanatha Rai, Kolluru Ramachandra Rao, Sadananda Suvarna; 2000-2001 : Sushila Upadhyaya, P.S. Rao, B.S. Rao, Phalinche Ramaiah Shetty.

Research on Tulu language, folklore and history is carried on in the Kannada department of the Mangalore University and the Rashtrakavi Govinda Pai Research Centre at M.G.M.College, Udupi. Scholars in Pune, Annamalai and Trivandrum Universities are engaged in research in Tulu language. The Govinda Pai Centre of Udupi has compiling a multi-volume modern Tulu Lexicon.

### **Kodava Language and Literature**

Historically speaking, it has been proved that till the 17th century Kodava language was spoken as the principal language in Kodagu, which was then a separate state. Kodagu had considerable Malayalam influence as its principal trade connection was with Malabar. The Haleri dynasty which took over the reins of administration of Kodagu adopted Kannada as the court language. The Kannada influence of about 230 years changed many shades of the original language of which adoption of Kannada script for writing is the most important. Appaneranda Appachcha who wrote many Kodava plays and Nadikeriyanda Chinnappa compiled 'Pattoe Palame' and translated 'Bhagavad Gita' were pioneering writers in Kodava language.

After the merger of Kodagu with Karnataka, there is a great literary awakening. Dr. I.M.Muthanna who is the author of 'A Tiny Model State of South India' and many other books has published a collection of poems in Kodava language. B.D. Ganapathy has written two books in Kodava Language called 'Nanga Kodava' and 'Kuttambolicha'. His Kannada book on Kodava culture 'Kodagu mattu Kodavaru' has won him the State Academy Award. Recently, effort are being made to foster Kodava literature and the Kodava Thak Parishat was established in 1978. It is working to bring out a Kodava lexicon. The first conference was presided over by the noted writer B.D.Ganapathi. It is holding conferences every year, the last being the one held in April 2000. Mekerira K. Kariyappa, now the President of Kodava Academy, presided over the conference.

Kodava has a very rich folk tradition. Kodava folk songs depict the facets of their colourful life and the poems are both robust and humorous. In these songs, we can see the Kodava language with its peculiarities. These songs seem to be very old, being of a bygone age and their authors are unknown. The difference between the language used in these songs and the present spoken language is striking. The Kodavas, above all, loved their land and we find their songs begin with patriotic praise of their land. Thus, Kodavas have a unique language, culture and tradition.

I.M.Muthanna, noted writer from Kodagu has completed a 'Kodava-Kannada Nighantu' in Kannada. Starting of 'Brahmagiri' weekly in Kodava language (1980) from Virajpet and 'Jamma Nangada' (1983) from Gonikoppal gave a great fillip to writing in the Kodava language apart from the publication of books. but all these publications are in Kannada script. A feature film titled 'Nada Mann Nada Kool' made in Kodava language and directed by S.R.Rajan



was released in 1972. In 1994 Kodava Akademy was founded by the State Government. The Academy have honoured 54 persons with **Annual Awards** upto 2000. Among them mention may be made of Ichettira Muttanna, B.D. Ganapathi, V.S. Ramakrishna and Ulliyada M. Poovaiah.

### **Konkani in Karnataka**

Konkani which is an independent language is spoken by more than 15 lakh people mostly spread all over the Western coast of India, of which more than six lakhs are in Karnataka. The Konkani-speaking people were mostly living in Goa but after the annexation of Goa by the Portuguese, many of them fled to Dakshina and Uttara Kannada fearing conversation to Christianity. At present, there is a large concentration of Konkani speaking people in South and North Kanara districts of Karnataka. Even though the Konkani language and culture were suppressed by the Portuguese, the people who migrated from Goa managed to help their culture to flourish. In the Konkani literature produced in Karnataka, there are two distinct groups, one produced by the Konkani Hindus and other by their Christian counterparts.

The Hindus Konkani works date back to the famous Bhakti poets and poetesses like Santappayya, Raghavadas, Jogavva and Avadi Bai who composed devotional songs in Konkani. Later the Bhagavad Gita was rendered into Konkani by Bangle Narayana Kamath (1872-1918). Mangesh Ramakrishna Telang, Bolantur Krishna Prabhu, Upendra Pai, Swamy Prabhavananda, N.V.Prabhu and B.V.Baliga wrote excellent poems and plays in Konkani. Scholars like Udyavar Narayanachar, Hattangadi Narayana Rao and M.M.Shanbhag published Konkani grammars. Other notable writers are Sheshagiri Keshava Prabhu, Mundas Devadas Pai, Kodbet Ramaraya Kamati, Bantwal Pundalika Baliga, V.R.Prabhu, S.V.Kamat, M.G.Pai etc.,

Konkani language had also its newspapers and as early as in 1929 a fortnightly periodical by name 'Saraswat' was published from Mangalore. Other journals like 'Navyug', 'Uzvadh', 'Konkana Kinara' and 'Sarvodaya' then followed it. Organisation like the Konkani Bhasha Mandal, Konkani Bhasha Parishad, Institute of Konkani, Konkani Bhashabhimani Samiti, work for the promotion of Konkani. Konkani feature films have also been made.

Konkani language flourished among the Christians of Dakshina Kannada. Konkani tracts and commentaries were prepared on the New Testament, Rev. Rafaele Pascetti and Rev. Fransesco Saverio da Santa Anna were pioneers who studied Konkani. The Jesuits who arrived and set up institutions like St. Joseph Seminary, St. Aloysius College, Fr. Muhller's Hospital and Codailbai press gave a fillip to the development of Konkani culture and literature. Many other writers and poets wrote verses and commentaries on the Christian religion and culture.

As far back as 1912, two Mangalorean youngsters, Louis Mascarenhas and Louis Kannappa published the first Konkani journal in Kannada script, the 'Konkani Dirvem'. This was followed by other journals like 'Rakno', 'Poinari', 'Mitr', 'Sukh-Dukh', 'Sevak', 'Zag-mag', 'Vishal Konkan', 'Kanik' and 'Udev'.

Many Konkani playwrights like G.M.B.Rodrigues, A.T. Lobo, V.J.P Saldanha, M.P.D'esa, Henry D'Silva, Eddie D'Souza and C.F.D. Coasta have written many plays in Konkani and

earned fame. Novels and stories in Konkani are also written. Many scholars are involved in research on Konkani language, literature and culture. Notable among them are Dr. William Madta and Dr. Rockey Miranda. Dharwad also is a centre for research and literary activity in Konkani language. Konkani stage is playing an important part in Karnataka. The pioneers in this field are Bolanthoor Krishna Prabhu, Kumble Narasimha Nayak, Benedict Rasario, Srinivasa Nayak, N.R. Kamath, Sridhara Bhat, Kamalaksha Nayak, Babuti Nayak and M.Venkatesh Prabhu. Two feature films titled 'Tapasvini' and 'Janamana' were made by the Saraswats and the Catholics made 'Jeevit Amchem Ashem' and one or two other films. B.V.Baliga had been editing a Konkani monthly 'Panchkadayi'.

Konkani has been recognised as a State language in Goa and is also included in the Eight Schedule of the Indian Constitution. The State Government founded the Konkani Academy in 1994.

#### **Konkani Academy Award Winners**

1995-96 : A.T. Lobo, Hossada Babutti Nayak; 1996-97 : V.J.P. Saldanha, Balakrishna Pai; 1997-98 : Edwin J.F. D'souza, J.B. Rasaginni; 1998-99 : Jeri Kulashekhar, Heranjala Gajanana Rao; 1999-2000 : William D'Silva, M. Venkatesha Prabhu; 2000-2001 : Victor Rodrigues, Kota Narasimha Pai, Melvin Peris and Anantha Yeshwanta Bhat.

#### **Urdu in Karnataka**

Urdu is being spoken by nine percent of the people in Karnataka and their number is next only to that of the Kannada speakers. It is the mother tongue of a majority of Muslims in the State. The Urdu Academy is established in 1976, by the Karnataka Government to foster the development of Urdu.

The growth of Muslims power in the Deccan gave rise to a dire necessity for a new dialect which would help the ruling class to converse with various sections of the local population. The new dialect, the Deccani that emerged was a symbol of co-ordination, integration and understanding between the Hindus and the Muslims. The Bahamani Sultans patronised this language. There were great literary works by celebrated writers and poets like Nijama ('Kadam Rao Padam'), Wajhi ('Qutab Mushtari and Sub-Rus'), Gawasi ('Saiful Mullock-O-Badie-Ul-Kamal'), Aajiz('Laila Majnu'), Balaqi ('Meraj Nama'), Ibn-Nishati (Phool Ban), Tabie ('Khaisa-L-Behram-O-Gul Andam') and Sewak ('Jung Nama'). Hazrath Bande Nawaz and his descendants wrote copiously in Urdu.

The advent of Haidar Ali and Tipu Sultan in Mysore gave a fresh impetus to Urdu. They patronized some eminent writers like Mohammed Sayeed Mekhri aasi, Shah Mohammed Sadruddin, Mohammed Ishaq Bijapuri, Ziaul Abeddin Shustri, Hassan Ali Izzat, Ahmed Khan Sherani, Syed Shah Aarif Khadri, Qazi Ghulam Ahmed, Lala Badha Singh, Lala Mehtab Rai Sabqat and Mir Hassan Kirmani.

The benevolent Maharajas of Mysore also extended patronage to this language. The golden period was the 19th Century. The outstanding men who strived for the development of Urdu literature in this period were Shah Abu Haiwaz, Hazrat Mohammed Khasim Gham, Sufi, Kaleem Athar, Dil, Sabir, Nawab Sultan Naseem, Jadoo, Ameer, Shoukat Nasir, Barq, Tahqiq, Amir, Tahril and Aaram.

The development of Deccani as Urdu in North India led to Urdu becoming a written language and Deccani, the spoken language in Karnataka. The outstanding litterateurs of

the first half of the twentieth Century were Khaji Abdulla Hussain Khaleeli, Shah Abdul Hussain Adib, Syed Ghouse Mohiddeen, Hajrat Faiq, Hazrat Alta, Hajrat Zaiq, Hazart Showq and Mohamood Khan Mohmood. The literary personalities of the present generation who have followed in the footsteps of their predecessors are Sulaiman Khateeb, Imami, Tadbish, Khaleel Semabi, Mahmood Iyaz, Hameed Almas, Rahi Quereshi, Dr. Muddanna Manzar, Fiyaz Belgodi, Shula Mailli, Mohammed Hanif, Kaleem Mohammed Khan and Mabarijuddin Rafat. Spread of education among the ladies has brought many female writers to the fore. They are Sayeeda Akhtar, Mumtaz Shireen, Begum Rahmatunnisa, Maimon Tasneem, Husna Sarur, Zubaida Nusreen, Dr. Habibunnisa Begum, Dr. Amina Khatoon, Dr. Waheedunnisa, Dr. Fahmida Begum and Basheerunnisa Begum.

Many Urdu journals have started publication in the Twentieth Century. The First Urdu newspaper was brought out by Mohammed Khasim Gham under the name 'Khasim-Ul-Akhbar' in 1860. In 1848 the first Urdu lithographic press called Mutha-E-Firdose was established at Bangalore. Today there are nearly 200 lithographic and 25 to 30 power printing presses all over the state busy engaged in urdu printing and publishing. 'The Marshum-E-Mohammedi' 'Mysore Akbar', 'Sultan Akbhar'. 'The Bangalore Guardian', the 'Bangalore Akhbar' and 'Nyer-E-Ajam' are the notable journals that can be mentioned. Some other journals include 'Targheeb', 'Taleem', 'Mussale' and 'Sham-E-Saqur'. Many other journals have been started in different cities of the state. 'Salar' (1964), 'Karnataka Leader' (1972), 'Sultan' (1990) and 'Khubsurat' (1994) are some current journals from Bangalore. The impact of Urdu on Kannada language is also notable. There are about 438 Arabic and 614 Persian words which have entered into Kannada through Urdu. These are mostly seen in Revenue records. Some of them are Zamindari, Muzrai, Masidi, Gumasta, Kacheri, Kharchu, Divan, Karkhana, etc.

Among the winners of State Urdu Akademi award, for their literary talent, mention can be made of Fiaz Belgodi, Syed Shahabuddin Nadvi, Hakim Mohammed Imam Imami, Mohammed Qasim Pyare, Saleem Tammanai (Mysore), Rahi Qureshi (Gulbarga), Abdul Hadi Rafat, Wahab Andaleeb (Gulbarga), Mazharuddin Samad Shahid (Mysore), Hamid Almas (Gulbarga), Khaeel Bebak (Mysore), Meer Badruddin Ali (Bangalore), Hamid Akmal (Gulbarga), Manzoor Ahmed (Bangalore), M.A. Hamid (Bidar), Meer Maqsood Ali Khan (Bidar), Shakeel Javeed (Bangalore), Mohammed Abdulla (Bangalore), Hakim Shakir (Gulbarga), Saleh Muneer (Bangalore), Anil Thakkar (Dharwad), Mohammed Obaidulla Shariff (Bangalore), Usman Asad (Bangalore), Khali Manzari, Tayab Ansari (Gulbarga), Shafi Ahamed (Mysore), M. Hameedulla Bhat (New Delhi), Gauhar Tarikerwi (Chickmagalur), Razzaque Afsar (Mysore), Abbdul Khalaq (Bangalore), Naeem Iqbal (Bangalore) and Rafi Bhandari (Bijapur).

### **Sanskrit in Karnataka**

It is difficult to trace the advent of Sanskrit into Karnataka because the earliest available inscriptions are in Prakrit, and only from fourth century we have Sanskrit records. The early Jaina poets who first wrote in Prakrit, later switched over to Sanskrit and only in the 9th Century A.D. they atarted writing in Kannada. Kannada is a language of the Dravidian group while Prakrit and Sanskrit belong to the Indo-Aryan group. The early books on Kannada grammar were modelled on the lines of Sanskrit grammar and some were also written in Sanskrit. Kannada script has originated from the Brahmi script which also fathered the

Devenagari script used for Sanskrit. In the field of poetics and prosody, Kannada has derived much from Sanskrit, 'Kavirajamarga', 'Udayadityalankara', 'Kavyalankara', 'Madhavalankara', 'Rasaviveka', 'Shringararatnakara', 'Aprathima Veera Charita', 'Navarasalankara', 'Rasaratnakara', 'Narapativijaya' and many other works on 'alankara' written in Kannada closely follow Sanskrit 'alankara' works. Gradually many Sanskrit words entered Kannada and they were accepted into its fold. Literary works in Kannada mostly draw their themes from the original Sanskrit works like the 'Ramayana', the 'Mahabharatha' 'Brihatkatha', Jain Aagamas, the Saiva Aagamas and the Puranas. There were many poets and scholars in Karnataka who wrote in Sanskrit. 'Chudamani' (Vardhamanadeva), 'Kathasarith-sagara' (Somadeva) and many other Jain writers wrote in Sanskrit, some of the notable early works in Sanskrit that were produced by Sanskrit scholars of Karnataka are 'Parswanathacharita', 'Chandraprabha-charita', 'Varangacharita', 'Yashodhara-charita', 'Harivamsha Purana', 'Gadya-chintamani', 'Jinadattacharita', 'Uttarapurana', 'Yashastilaka-champu', 'Kavirahasya', 'Mritasanjeevini', 'Vikramankadeva Charita', 'Gadyakarnamrita', 'Rukminikalyana', 'Ushaharana', 'Madhawavijaya', 'Jayateerthavijaya', 'Vadirajacharitamrita', 'Vidyhadhishavijaya', 'Satyanathabhyudaya', 'Raghavendra Vijaya', 'Satyabodhavijaya', 'Guruwamshakathakalpataru', 'Udaharanamala', 'Ramollasa', 'Tripuravijaya', 'Veerakamparaya charita' or 'Madhuravijaya', 'Alankara Sudhanidhi', 'Subhashitasudhanidhi', 'Ramabhyudaya', 'Narakasuravijaya', 'Jambavathikalyana', 'Kavikarnarasayana', 'Veerabhadravijaya', 'Subhadradhananjaya', 'Nanjarajayoshobhushana', 'Konkanabhyudaya', 'Hamsasandesha', 'Subhadra Parinaya' etc. are in Sanskrit.

In recent times writers like Jaggu Alwar Iyengar, Galagali Ramacharya, K.S. Nagarajan, Prof. K.T. Pandurangi, Dr. Raghavan, C.G. Purushottama, etc., are working in the field of Sanskrit literature. Pandarinathacharya Galagali and Jaggu Vakulabhushanam have received Central Sahitya Akademy awards for their works.

In the field of *Kavya*, *Nataka* and general literature the above mentioned works can be included. But Karnataka's contribution in the field of literature on *Shastras* and religion in Sanskrit is very rich. Sureshwara-Vishwarupa, Anandagiri, Prakashatman, Anandabodha, Vidyananya, Sayanacharya, Nrisimhashramamuni, Bharatiteertha, Vadindra and Nrisimhasharma have written treatises on Advaita doctrines. Ramamishradeshika, Vatsyavarada, Parakalayati, Srinivasacharya and Anantacharya have written works on Vishitadvaita.

Karnataka has exclusive claim over the contributions made by the founder of Dwaita school of Philosophy. Madhwacharya wrote *Bhashyas* on many subjects. Writers like Anandateertha, Jayateertha, Vijayeendra, Vadiraja, Vidyadhisha, Satyanatha, Raghavendra, Yadavarya, Srinivasabhattacha, Anadabhattacha, Keshavabhattacha and Srinivasateertha are scholars who enriched Sanskrit literature by their writings on the Dwaita philosophy.

Many Jain works, some on the work of Shivasharanas, interesting works in polity, grammar, etymology, etc., are also found. Sanskrit enjoyed royal patronage also, in Karnataka. 'Manasollasa' and 'Shivatattva Ratnakara' are two Sanskrit encyclopaediae by royal authors, Chalukya Someshwara III and Keladi Basavaraja respectively. The recent poets and writers of Sanskrit are Jaggu Vakulabhushana, R.Ganesh, K.Nanjunda, Ghanapathi, M.Manjunatha Bhatta, Pandarinathacharya Galagali, R.S.Panchamukhi and others. Many great works of Kannada and other languages are also translated to Sanskrit. Gokarna, Sringeri, Udupi,

Melkote and Shivayoga Mandira are centres where Sanskrit scholars are engaged in research and teaching of Sanskrit.

Ubhaya Vedantha Sabha at Bangalore, Madhwa Siddhantha Sabha at Udupi, Abhivridhdhikarini Sabha, Samirasamayasabha and other organisations conduct Vidvat Sabhas annually. Thus, Sanskrit is very much present in the intellectual life of Karnataka.

### **Telugu in Karnataka**

The cultural, religious and literary affinities between the States of Karnataka and Andhra Pradesh are intimate and significant. Many Telugu kings ruled over large parts of the present day Karnataka and many Kannada rulers ruled over large areas of Telugu speaking country. Numerous Telugu inscriptions found in Karnataka and numerous Kannada inscriptions found in Andhra Pradesh signify this. Until the period of the Vijayanagar rulers both Telugu and Kannada had a common script. Now even though they have different scripts they are very close to each other. Palkurike Somanatha who is famous in Telugu literature as the author of 'Basava Puranam' is said to have written in Kannada. Ragales and Vachanas and works like 'Sheela Sampadane' and 'Sahasragananama'. There are also works in Telugu like 'Simhagiri Vachanas' and 'Venkateshwara Vachanas' modelled on the Vachanas of Basaveshwara. The Vijayanagara period was the golden age for both Kannada and Telugu. The Vijayanagara court was the meeting place for both the languages and cultures. It provided opportunity for large scale exchange of ideas between the two peoples.

In the 19th and the 20th Centuries works like '*Chowdeshwari Puranam*' (Gummarajura Mahakavi), '*Sukarmaneeti Chintamani*' (Komarla Ramachandraiah), '*Padmavathi Srinwasa*' (Kahula Bhairava Kavi), etc., were written. What Sarvajna is to Kannada, Vemana is to Telugu. Bhimaraju, a Telugu poet of Karnataka translated Sarvajna's Vachanas to Telugu and Vemana's poems in to Kannada.

In recent times considerable literary activity is seen in the realm of translations. Award winning works of literature of the two languages are translated to either language. In the field of translation Dr. T.V.Subba Rao, Badala Ramaiah, K.S. Janakiramaiah, Dr. R.V.S. Sundaram and Hariharapriya are worthy of mention and they have done commendable work.

The universities of Bangalore and Mysore which have well established Telugu departments and they have helped the development of this language in Karnataka. Many research thises on Telugu literature and culture have been presented in these two Universities. Another notable trend is the translation into Kannada of political and social satires and novels from Telugu. Telugu cinema and Kannada cinema have a very close relationship. Telugu Samiti and Andhra Vijnana Sangham in Bangalore are trying to provide a common platform for literary and cultural activities. A common script for both Telugu and Kannada languages is often advocated.

### **Tamil in Karnataka**

Kannada and Tamil originated from the same proto-Dravidian language and Kannada is next only to Tamil in antiquity in this group. Kannada and Tamil have influenced each other immensely. The Pallava and Chola dynasties ruled over large parts of the present Karnataka. The Gangas, Chalukyas, Hoysalas and the Vijayanagara emperors ruled over parts of Tamilnadu. The word Karnataka itself appears to have been a contribution of the

Tamils as it is used as 'Karunat' in Tamil works like 'Shilappadikaram'. The two languages are so close to each other that some of the expressions of early Kannada are also found in Tamil.

Numerous Tamil inscriptions are found in present day Karnataka and numerous Kannada inscriptions are found in present-day Tamilnadu. Many Tamil words are found in Kannada with slight variations.

It is presumed that the earliest Kannada poet Pampa must have known Tamil also. Karna defeating Duryodhana's wife in a game of dice and snatching her necklace as stake which is narrated by Pampa in *Vikramarjuna Vijaya*, has a Tamil source. Harihara's Ragales with their Ragale metre might have been an adaptation of 'avagal' of Tamil metre. In the days of Ramanuja who took shelter in Kannada speaking regions, the Srivaishnava religion he propagated had its impact on Karnataka. Many Tamil Brahmanas settled in the 'Agraharas' in places like Tondnur and Melkote. This religion and its literature in Tamil made an impact on Kannada literature. Sripadaraya who initiated Haridasa Sahitya was influenced by Tamil devotional songs. The love of the Tamil poets for their language, their enthusiasm for pure Tamil expression and their deliberate attempt not to borrow from Sanskrit and to retain a good number of Tamil idioms influenced Kannada poets and writers. This attitude is reflected in the writings of Srivaishnava Kannada poets, like Chikkupadhyaya, Singararya, Tirumalaraya and Sanchiya Honnamma. They have made use of chaste Kannada even though they were well versed in Sanskrit.

This attitude is also clearly reflected in the writings of B.M.Srikantaiah. His slogans like 'Sirigannadam Gelge' 'Sirigannadam Balge' 'El Kannada Tay' etc., clearly indicate his enthusiasm for chaste Kannada and in this respect he was influenced by Tamil literature.

Impact of Kannada on Tamil also is not small. Many religious movement in Karnataka like Jainism and the Ganapathi cult appear to have moved from Karnataka to Tamilnadu. Tamil inscriptions speak of Jain ascetics from Shravanabelagola having been active in Tamilnadu. Vatapi Ganapathi, whose praise is sung by Muttuswami Deekshitar, indicates the advent of Ganapathi cult into Tamilnadu via Karnataka. Chamarasa's '*Prabhulinga leele*', Sarvajna's Vachanas, Vachanas of Basaveshwara and Akkamahadevi have been translated into Tamil. Tamil classics like 'Tirukkural', and 'Perriyapuram' have been rendered into Kannada.

### **Malayalam in Karnataka**

Evidence of cultural unity between Kerala and Karnataka emanate from the legends like those of Parashurama creating the coastal belt. Though the two cultures could be sprouts from a common Dravidian source, both perhaps had exposure to more or less identical foreign influences also, because the entire strip of the West Coast constituted a centre of commerce and trade.

Jagadguru Sri Shankaracharya cannot probably be considered as an exclusive representative of Kerala culture, since what he embodied was the general Hindu revival. He established one of his *Peethams* in Sringeri in Karnataka. He is said to have consecrated the present idol in the famous Mookambika temple at Kollur near Kundapur. Many Tulu Brahmins have migrated to Kerala. The latest link in this trail is perhaps the influence of Lord Ayyappa, the diety whose shrine is in Kerala, over the Kannadigas.

In the realm of linguistic feature, Kannada and Malayalam have originated from a common source, the Dravidian. Halegannada was often surprisingly close to Malayalam. Alphabets, basic vocabulary, underlying structures are all identical to great extent in these languages. Sanskrit influenced both the languages profoundly. The amount of influence of the great Sanskrit works of poets like Kalidasa, Bhasa etc., over Kannada and Malayalam is obvious.

The age old contact between Karnataka and Kerala entered into a new era during the missionary activities in the West Coast. Due to the patronage extended by the Sahitya Academy 'Chemmin', 'Yakshi' etc., have been translated into Kannada.

There are instances, though rare, of Kannada writers drawing inspiration from certain setting and features of Kerala life and *vice versa*. The well known progressive novel in Kannada, 'Chirasmarane' by Niranjana revolves around an incident that occurred in Kerala village Kayyar, and its Malayalam rendering won overwhelming appreciation. One of the latest poems by Dr. Ayyappa Panicker, the outstanding modern poet of Malayalam, is titled 'Chamundimaleyle Thiravilayattam'. Mention may also be made of the Trivandrum Karnataka Association which brought out a volume 'Mandara Mallige', a collection of representative pieces of Malayalam literature, translated into Kannada. In the recent period a band of new writers have come up whose translation of short stories, novels, monographs etc., are bringing the two languages and culture into closer contact. K.T.Sridhar ('Manju'), P.V.Puninchattaya ('Nannajjanigondaneyittu'), Srikrishna Bhat Arthikaje ('Ayyappan'), K.K.Nair, C.Raghavar, M.S.Lakshmanachar, N.S.Sharada Prasad, P.G.Kamat, Sarah Abubakar and Venugopala Kasaragod are prominent among them. The Karnataka Sangha of Thiruvananthapuram has brought out a publication called 'Purandaradasa Keerthanavali' with Malayalam translations with details of musical notes and explanations.

The universities in Karnataka offer Malayalam as one of the languages to be studied at the degree level. There is a department of Malayalam in the Mangalore government college. The M.A. course in South India studies is being run by the Mysore University has also given Malayalam its due recognition.

### **Marathi in Karnataka**

Marathi and Kannada are very close to each other for Centuries. Geographical, cultural, social, anthropological and religious bonds were responsible for their affinity. Mutual influences and exchanges are seen in the usage of these languages when Kannada had rich literature, Marathi was being evolved through Mararastri Prakrit, popularly known as Jain Maharashtri. Linguistic peculiarities of the Marathi spoken in Karnataka are worth noting. Use of Kannada words and idiom form the major peculiarities. Some peculiarities like the dento-palatal pronunciation in the original Marathi are observed in the Marathi spoken in Karnataka. The influence of Kannada word 'avaru' used as a suffix after any proper name in Marathi is very significant.

The Muslim rulers of Bijapur, Mysore and many small jahgirs in Karnataka like Jamkhandi etc., gave a significant place to the Marathi language and the Modi script. Till the end of the 19th century, the Modi script was in use especially in North Karnataka. Under the Maratha rule, Kannada and Marathi came in close contact and influenced each other to a considerable extent. Important literature in Marathi produced in Karnataka

dates back to the 17th Century. Mudalagi, a place near Gokak has a tradition of Swamis belonging to the school of Mukundaraja, the first Marathi poet. Krishnaraja Wodeyar III patronised Marathi. He also wrote a book entitled 'Sankhya Ratnakosha' on the game of chess in Marathi. After the advent of British rule, because of the contacts of Karnataka with Maharashtra in several spheres like politics, education, literature and other fine arts, Marathi played a significant role in Karnataka. Political leaders like Gokhale and Tilak were respected and loved as their own people, by the people of Karnataka. Marathi theatre was very popular and stage actors like Balagandharva were very much liked in Karnataka. Historical novels of Hari Narayan Apte were translated into Kannada by Galaganath. Works of Sane Guruji, Phadke, Khandekar, Savarkar and Ranjit Desai have been translated to Kannada. Many modern Marathi plays have been translated to Kannada and *vice versa*. Tendulkar's plays are familiar in Karnataka and Girish Karnad's Kannada plays have gained appreciation and acceptance in Maharashtra. Bendre's 'Nakutanti', Vachana Basaveshwara, 'Vachanodaya' Kailasam's 'Tollugatti', Karnad's 'Hayavadana' and 'Tughlaq' etc., have been translated to Marathi and have been immensely popular. Many able Marathi writers of Karnataka have a name for themselves. Notable among them are Govind Kelkar, Narayan Atiwadkar, Manohar Banne, G.G.Rajadhyaksh, N.R.Killedar, G.A. Kulkarni etc.

Novelists Prof.Nikhumba, Indira Sant and Ranjit Desai, Prof Aravinda Yalgi, Madhavi Desai, Priya Prabhu are among the noted writers from Belgaum district. G.D.Khare of Gadag has won award for his work 'Gita Marma Darshan'. Prof G.A. Kulkarni from Dharwad was a noted short story writer. Dr. A.R.Toro from Ainapur has translated many Marathi works to Kannada and *vice versa*. He received the Jnanapith award for his Marathi works. R.G.Kalangade of Hubli has written many religious works including one on Sayanacharya. Of writers from Dharwad Prof. B.R. Modak, Vidya Sapre (novelist), and Baburao Gaekwad can be mentioned. S.S. Gokhale's unique work 'Akashasi Jadavu Nate' is on astronomy. Prof. Deulgaonkar from and G.P.Joshi from Gulbarga also write in Marathi the latter's work on 'Krishna-Godavari Parisar' being a notable work on cultural history.

Marathi Journalism also flourished in Karnataka. *Tarun Bharat, Ranajunjar, Varta, Veeravani, Lokmat, Rashtraveer* and *Belgaum Samachar* are some of the journals that are mention worthy.

### Journalism in Karnataka

The history of Kannada newspaper is just more than one and half a century old. The first Kannada newspaper appeared in Mangalore in July 1843 called 'Mangaloora Samachara' with Rev. Herman Moegling, a Basel Mission priest as its editor. Although the prime idea behind this lithographic venture was propagation of Christianity it contained news also. Soon, others followed Moegling and many more newspapers came into being.

The city of Mysore was the centre of all literary and political activities in the erstwhile Mysore State and naturally, newspapers and periodicals were born there. 'Mysore Vrittanta Bodhini', and 'Karnataka Prakashika' were among them. Newspapers and periodicals were published from Belgaum, Bijapur, Dharwad, Mysore, Shimoga, Karwar and Bangalore also around the same period.

M.Venkatakrishnaiah, popularly known as the Grand Old Man of Mysore, excelled in journalism. He ventured into journalism through the 'Hita Bodhini', a journal of high esteem in 1883. It was edited by M.B. Srinivasa Iyengar and M.S. Puttanna. Venkatakrishnaiah



started his own weekly, the '*Vrittanta Chintamani*' in 1885. Readers were thrilled to read his sharp editorial comments. He started many journals both in Kannada and English in Mysore. '*Mysore Herald*' (1886, English), '*Wealth of Mysore*' (1912, English Monthly), the '*Sampadabhyudaya*' (Kannada daily, 1912) the '*Nature Cure*' (English), and the '*Sadhvi*' (1912). The '*Sadhvi*, which started as a Kannada weekly was being run as a daily till recently. As a man with reformist ideas, Venkatakrishnaiah has left his incredible impress on Kannada journalism.

In the beginning of the Twentieth Century political movements changed the surface of Kannada journalism. The Indian National Congress and the entry of Mahatma Gandhi on the political scene of India did have their impact on this field. For many young enthusiasts, newspapers became the potent medium to preach, the idea of national freedom. The '*Kannada Kesari*' (Hubli), the '*Chandrodaya*' (1913), Dharwad, Kerur Vasudevacharya's '*Shubhodaya*' (1917) Dharwad and the '*Sachitra Bharat*' (1913), the '*Karmaveera*' (1921, Dharwad), the '*Kannadiga*' (1925, Bagalkot) and the '*Vijaya*' (1921, Dharwad) extended their maximum support to the nationalist movement. D.V. Gundappa, a noted Kannada author, was also a journalist par excellence. His journalistic ventures include the '*Bharati*' (1907, Bangalore) a '*Kannada Daily*, a bi-weekly the '*Mysore Times*' (1909, Bangalore), the '*Artha Sadhaka Patrika*' (1915) a Kannada monthly, and the '*Karnataka*' (1912, Bangalore) a bi-weekly in English. '*Vibhakara*' (1917-18, Belgaum) a Kannada-English weekly started by Panditappa Chikkodi who spearheaded the movement for the backward classes. '*Mysore Star*' from Mysore started by the close of the 19th century did similar work.

P.R. Ramaiah's '*Tai Nadu*' (1926, Mysore) was a staunch nationalist newspaper. In the beginning, it was a weekly from Mysore, but later was transferred to Bangalore and converted into a daily (1928). N.S. Seetharama Sastry worked in both the weekly and daily '*Desha Bandhu*' (1931, Bangalore) edited by C. Hayavadana Rao. He was succeeded by N.S. Venkoba Rao. The '*Veera Kesari*' (1928, Bangalore) of M. Seetharama Sastry made its presence felt, by his sharp editorials. T.T. Sharman who had a penchant for the hecking of authorities, endeared himself to the freedom lovers. The writings in his '*Vishwa Karnataka*' (1925) always troubled the authorities. Siddavanahalli Krishna Sharma ran the paper when T.T. Sharma was unable to attend to his work for some time. B.N. Gupta's '*Prajamata*' (1931, Madras) was an eye-sore to the authorities constantly. When it was shifted to Bangalore it experienced difficulties and to avoid the proscribing of its copies. B.N. Gupta started publishing it under the title '*Prajamitra*' from Hubli. Gupta also founded the '*Janavani*' an evening Kannada daily (1934). Other journals such as the '*Swadeshabhimani*' (Mangalore, 1907), the '*Nadegannadi*' and the '*Vikata Vinodini*' (monthly) the last being a monthly dedicated to humour, '*Koravanji*' being another such venture.

When the nationalist movement was at its peak, several literary journals managed to increase their leadership. Prominent among them are the '*Jaya Karnataka*' (1922, Dharwad) of Alur Venkata Rao, Galaganatha's '*Sadbodha Chandrike*' (1907, Agadi) the '*Jayanthi*' (1938, Dharwad), the '*Prabhuddha Karnataka*' (1932, Bangalore) and the Kannada Sahitya Parishatpatrike' (1916, Bangalore). '*Jeevana*' (1940, Dharwad) was later brought to Bangalore where the noted litterateur Masti Venkatesh Iyengar edited it.

In North Karnataka, the freedom movement was led by '*Samyukta Karnataka*'. In 1929, it was started as a weekly in Belgaum by a group of energetic men. Kabbur Madhava Rao,

Rama Rao Hukkerikar and Ranganatha Ramachandra Diwakar ran it for sometime. In 1933, the Lokashikshana Trust of Diwakar took it over and started publishing it as a daily from Hubli. Its Bangalore edition was launched in 1959. Hanumantha Rao Moharey played a very important role in the development of *Samyuktha Karnataka*. R.R. Diwakar's '*Nava Shakti*' (English 1923, Dharwad) was a weekly. Patil Puttappa has been editing the '*Prapancha*' weekly (1954, Hubli) and the '*Vishwa Vani*' (1959, daily). The '*Kasturi*' (1956, Hubli) and the '*Tushara*' (1973, Manipal) are the popular monthly magazines in Kannada.

The Printers (Private) Limited, Bangalore, a joint stock company created history with their newspapers, the '*Prajavani*' (a Kannada daily) and the '*Deccan Herald*' (an English daily) which were started in 1948. Now it is a large institution in the state by virtue of its largest circulation. Its other publications are '*Sudha*' a Kannada weekly and '*Mayura*' a Kannada monthly. Another Kannada daily the '*Kannada Prabha*' belongs to the Express group of newspapers. Its inaugural issue came out on November 4, 1967, with N.S. Seetharam Shastry as its editor.

The Mysore city has a very large number of evening dailies, besides other periodicals and journals. They include, '*Mysore Patrike*' (1941), '*Varthamana*' (1947), '*Vishwadoota*' (1962), '*Asoka*' (1964), '*Rajya Dharma*' (1967), '*Sudharma*' (1970)-a Sankshrit daily, the '*Aruna*' (1947), '*Vijaya*' (1947), '*Independent*' (1967) and '*Sankranthi*'. '*Sadhvi*' (1936) was run by Agaram Rangaiiah who had his training in Journalism under Dr. Annie Besant.

The beginning of the eighties was the period of censorship. The National Emergency days 1975 caused a suffocating atmosphere for Journals. Journalism in particular had to live down its ignominy of buckling under pressure during the Emergency. Another important circumstance that determined the role of the press was the need for effective opposition due to the one-party rule for a long time in the country. Perhaps one of the most important magazines that caught the spirit this prevailing mood and was successful in expressing it sharply without any adornment was '*Lankesh Patrike*' (1980). Not that there were no such attempts before. Sheshappa's '*Kidi*' was heralded the trend by exposing the establishment. '*Kidi*' was Sheshappa's one-man paper. Though Lankesh followed his example he did it in a different and organised manner. Of late '*Hai Bangalore*' is doing a similar job.

The Proprietors Manipal Printers and Publishers Ltd., Manipal started its service, in Journalism by bringing out '*Udayavani*', a Kannada daily in 1970. It is being published from Bangalore, Manipal and Mumbai. '*Tushara*' a monthly is being published since 25 years. T. Satish U. Pai is the Managing Editor for this. R. Poornima is an active journalist of Udayavani. The '*Taranga*' weekly published by the Pais of Manipal, was edited by experienced journalist Santosh Kumar Gulvadi (upto 1996). Sandhya S. Pai has taken charge after him. Vykuntharaju's '*Vara Patrike*' became moderately successful with its simple straight and sober handling of public issues. He also edits a popular monthly '*Rajupatrike*'. Of the other commendable journalistic attempts were '*Suddi Sangati*' of Indudhara Honnapura and '*Sanketha*' (a fortnightly) of I.K. Jagirdar and M.B. Singh, '*Manwantar*' of Ashok Babu. '*Mardani*' of Janagere Venkataramaiah, '*Abhimani*' of T. Venkatesh, '*Vijaya Karnataka*' daily, '*Nutana*', weekly and '*Bhavana*' monthly, under the group of Company of Ananda Printers and Publishers etc. The last mentioned daily (2000) is being published from Hubli, Bangalore and Gulbarga. '*Hosa Diganta*', daily from Bangalore is also being published from Bangalore and Shimoga.

Newspapers have played their own role in the political, social and literary life of Karnataka. Their part in the freedom movement is notable. Newspapers supported the

Unification movement of Karnataka whole-heartedly and also fostered emotional integration. The encouragement they gave to the cultural activities like drama, music, cinema, art, literature and sports are commendable. They have played a very prominent part in the propagation of new and progressive thoughts and popularising the spirit of democracy.

English Dailies like 'Deccan Herald' (1948), 'The Indian Express' (1965), 'The Hindu', 'The Times of India' and the 'Asian Age' All from Bangalore, have a wide circulation.

According to the Media List of the Department of Information and Publicity, the total number of daily news papers published as on March 2001, in the State, is 260 and that of periodicals is 150. Approximately 1455 magazines and news papers are published in the State, at present (290 Dailies, 6 Tri-Weeklies or Bi-Weeklies, 337 Weeklies, 217 Fortnightlies, 542 Monthlies, 17 Half Yearly and 3 Annuals.). Besides there are various other Malayalam, Tamil and Urdu news papers in the State. The Karnataka Patrika Academy was founded in 1982.

#### **T.S.R. Award Winners**

The highest honour in Journalism in the name of T.S. Ramachandra Rao is given by the Department of Information and Publicity to eminent journalists in the state. The Award has been Instituted in the year 1993, which includes a certificate of honour and Rupee one Lakh. So far the following have received the T.S.R. Award : Patil Puttappa (1993), Seetharama Shastri (1994), K. Shayam Rao (1995), P.L. Bankapura (1996), M.B. Singh (1997), S.V. Jayasheela Rao (1998), Vadda Rase Raghurama Shetty (1999) and S.G. Mysore Math (2000).

#### **Karnataka Patrika Academy Award Winners**

1993-95 : Anantha Subbarao, N. Arjunadeva, V.N. Kagalkar, Y.K. Krishnamurthy, N.S. Krishnaswamy, M.C. Gundu Rao, K. Jayatheertha Rao, Jiya Meer, T. Nagaraju, N.G. Patil, Badanahatti Hanumantha Rao, T.K. Mahamood, T.S. Sathyan, G. Sathyanarayana, A.G. Seethalakshmi, Huchcheshwar Medi, S.G.. Mysore Math, B.V. Baliga, S. Ramesh, Shankar Patil; 1996 : E.R. Sethuram, D.V. Muthalika Desai, M.R. Kalasappa Gowda, D.S. Shesharaghavachar, H.L. Shrikantha Murthy, Srirama Pingale, Raj Imthiyaz, D.H. Srinivas, D.J. Anandaraj, Kanneppadi Ramakrishna and Special Award to H.S. Krishnaswamy Iyengar; 1997 : S. Subbarao, H.S. Ramakrishna Iyengar, H. Manjunatha Rao, B.D. Ganapathi, H. Narasimha Murthy, K.N. Nasimhe Gowda, M.A. Hamid, Mohan V. Muthalika Desai, B.V. Vaikuntaraju, G.S. Narayanaswamy and Special Award to Venkatesha Kulkarni; 1998 : M. Gopala Kannan, K.P. Joshi, B.S.N. Mallya, H.R. Nagesh Rao, Rajendra Patil, K.M. Muniyappa, R. Gundappa, Saritha Rai, K.G. Somashekhar, Late. B.N.Dharwadkar and Special Award to B. Chandre Gowda; 1999 : H.N. Murthy, S.S. Bagalodi, P. Ramaiah, K. Rajarao, Shivasharanappa Vali, Ali Hafeez, Narayana Sripada Bhatta Ghalagi, Raghavendra Aravinda Joshi, T.K. Rao, R. Poornima and Special Award to M. Mallikarjunaiah; 2000 : A.V. Srinivas, Madhuroo Aparanji, Badrinath H. Hombali, P.M. Mannura, A. Ishwaraiah, C.S. Sambashivan, Shivaji Ganeshan, R.P. Venkatesh Murthy, Smt. Nahid Autalla, D. Baburaj, Special Award to G. Venkatasubbaiah and Abhimani Award (posthumas) to Rajesh Shibaje.

Kolara Patrike (1997), Janatha Vani (1998), Kannadamma Daily (1999), Janamitra (2000), are the local papers which have won the 'Andolana' Award from the Karnataka Patrika Academy.

### Folk Literature\*

Who among us has not heard the story of a rich boy or girl falling in love with a poor girl or boy and marrying her or him eventually after many hardships including fierce opposition from would-be parents-in-law? Our folk literature abounds in such stories such as our films do. Or, consider the story of a vagrant husband whose exploits are finally discovered by the wife but pardoned immediately, true to spirit of ideal house wife. This as you may have thought is not a film story either. This is the story of our Lord Srikanteswara, of Nanjangud, who inspite of being wedded to the beautiful Deveri, had an affair going, with Chamundi, of the Chamundi hills. Or, take the story of Lord Ranganath, of the Biligiri hills, who fell in love with a poor Soliga tribal girl - and married her. So much credence is given to this story by the local people, the Soligas, that they even to this day address Lord Ranganatha as 'Bhava', that is brother-in-law. These are stories which could make wonderful film material, and it is no exaggeration if we say that the genesis of majority of film stories is the folk literature.

When we say folk literature we do not always mean written literature only. Folk tradition in Karnataka, as elsewhere, began orally. The systematic study of folk literature was initiated by European scholars. Anyone who glances at the Kittel dictionary is sure to be amazed by the abundant collection of proverbs, most of which are of folk origin. Kittel was helped in this by his immediate superior at the Basel Mission Church, Mangalore, Rev. Moegling. Abbe Dubois' work 'Hindu Customs, Manners and Ceremonies' contain a number of folk tales. May Fserer's 'Old Deccan Day' is an independent collection of folk tale. Among Kannadigas, Nadakeriyanda Chinnappa, a scholar from Kodagu, published in 1924, a book in Kodava language called 'Pattole Palame', which was a collection of regional folklore with Kannada commentary. This was followed by Halasangi Brothers of North Karnataka who published three volumes of folksongs and Ballads, titled 'Garathiya Haadu,' 'Mallige Dande' and 'Jeevana Sangeetha'. Archaka B. Rangaswamy Bhatta of Mandya District brought out a book 'Huttida Halli Halliya Haadu' which depicted the rural traditions of an entire village. During pre-independence period B.S. Gaddagimath was perhaps the first scholar in Kannada to secure a doctorate for his thesis on folklore. This was followed by Jee. Sham. Paramashivayya's series of articles in Kannada Journals on folklore. Haa. Maa. Naik, a scholar in linguistics, published many papers on the study of folk culture. D. Javaregowda, as Vice-Chancellor of Mysore University, established a Folklore Research Centre at Mysore. The Universities of Bangalore and Karnataka also offer Doctoral Degrees in the study of folk culture. Of late Hampi Kannada University has also been in the forefront.

Two other main centres for the study of folk literature are the Karnataka Janapada Trust and the Karnataka Janapada and Yakshagana Academy. The former has a collection of more than 1,000 folk songs recorded from all over the state. The latter brings out an annual collection of folklore of about 100 pages at a nominal price of one rupee.

Mathigghatta Krishnamurthy has brought out a series of voluminous books like 'Grihini Geethegalu', which are a collection of folk songs. S.K. Karim Khan has travelled the length and breadth of Karnataka giving lectures on folk literature. Popular playwright - novelist Chandrasekhara Kambara has to his credit many popular adaptations of folk stories like Siri Sampige, Singaravva Matthu Aramane, Kadu-Kudure and Sangya-Balya. Girish Karnad

---

\* Contributed by C. Seetharam

won international acclaim for his play 'Nagamandala' based on folk story. And so did A.K. Ramanujan for his collection of folk stories. B.V. Karanth and C. Aswath are pioneers in adapting folk music to films. They made their debut as music directors in 'Vamsha Vriksha' and 'Kakana Kote' respectively. H.L. Nagegowda and H.K. Rajegowda have done remarkable work in this field. 'Janapada Loka' of Janapada Parishat, at Ramanagar which has taken a good shape by H.L. Nagegowda, has a rare collection of folk materials. 'Arambhaddettu Inooru', 'Aane Banthondane', 'Nannuru', 'Veriyar Elvinnana Girijana Prapancha', are some of his important collections. H.K. Rajegowda's 'Kempanna Gowdana Yakshagana Kavyagalu', 'Vokkaliga Janangada Sampradaya', 'Itihasa Janapada' are notable works. Hi.Chi. Boralingaiah and Mudenur Sanganna's works are noteworthy.

Certain folk tales are common to all regions. One such is about a Harijan youth masquarding as Brahmin and marrying a girl from that community. The girl when discovers the deceit, she throws herself into pyre and becomes a goddess. Another narrative - 'Kerege Hara' is woven round a chaste woman who sacrifices herself for the successful completion of village tank. And then we have many number of animal tales in which the fox is the trickster.

When we come to the realm of songs we find songs for every rural activity, be it grinding, pounding, christening the baby, lullaby, marriage, nuptials, or even tattooing. The last named is the forte of a distinct community called the 'Koravanjis'. Kolata or stick dance is perhaps unique to Karnataka.

Ballad or narrative folk song is another distinct form. 'Jeeshampa' has classified them to twelve groups or traditions as 1. Devara Guddas, 2. Neelagaras, 3. Ganeplayers, 4. Gorvas, 5. Choudikeyavaru, 6. Aradigalu 7. Karapaladavaru, 8. Tamburiyavaru, 9. Kinnara Jogigalu, 10. Dombidasaru, 11. Helavaru and 12. Telugu Jangamaru.

Some of the popular ballads are Gunasagari, Sarjappa Nayakana Kathe, Madakari Nayaka, Kitthuru Chennamma, Sangolli Rayanna, Balanagamma, Malaya Madeswara Kavya, Manteswami Kavya, Yallamma Kavya and Mailaralingana Kavya.

Folk theatre too has a rich tradition in Karnataka. Who, for instance, has not heard of 'Yakshagana' of Coastal Karnataka, also in vogue in different parts of Karnataka, as Dodddata, Bayalata etc? Puppet theatre is another folk form, classified into two categories as Thogalugombe and Keelugombe. The former is shadow play with the help of leather cut into human or animal or super-human forms and the latter are performed with the help of dolls with movable limbs controlled by strings by the operators. What interests as literature is the narrative technique which would be quite engrossing.

And then there are a host of books on folk medicine such as 'Padartha Sara', 'Vaidyaratnakara' etc. Many of these were brought out by, or with the help of the royal family of Mysore.

Closely connected with folk literature are folk arts Kamsale, Chaudike, Ekatari etc., and dance like Lambani dance, Patada Kunita, Nandikolu Kunita, Veeragase, Dollu Kunita, Gorawara Kunita, Gondala, etc. These are all connected with religious rituals, connected with some deity, and Yakshagana and puppet show are also of similar origin.

Govinda Pai Research Centre. Udupi (M.G.M. College) has been doing unique documentation work, and has collaborated with a Finnish University. In order to promote folk literature and folk arts, the Karnataka Jaanapada and Yakshagana Academy honours the outstanding folklore scholars and the artists every year by granting Jaanapada Tagnya Award and Annual Awards.

#### **Jaanapada Tagnya Award Winners**

1986 : Simpi Linganna; 1988 : Mathighatta Krishnamurthy and D. Javeregowda; 1989: H.L. Nagegowda; 1990 : H.M. Nayak and B.B. Hendi; 1991 : Ku.Shi. Haridasa Bhat and K.R. Lingappa; 1992 : Chandrashekhara Kambara and Mudenuru Sanganna; 1993 : M. Chidananda Murthy, P.R. Thippeswamy and N.R. Nayak; 1994 : G. Narayana, Goruru Channabasappa, Devendra Kumar Hakari, M.G. Biradara, Amrita Someshwara and C.P. Krishnakumar; 1995: Ham.Pa Nagarajaiah, Ramegowda (Ragau), Somashekhara Imrapura and R.C. Hirematha; 1996 : B.A. Vivek Rai, Basavaraja Malashetty and P.K. Rajashekhara; 1997 : M.M. Kalburgi, M.B. Neginahala, T.N. Shankaranarayana, D.K. Rajendra and P.K. Khandoba; 1998 : Kyatanahally Ramanna, Shanthi Nayak and A.V. Naavada; 1999 : Nam Tapasvikumar, M.N. Vali and H.J. Lakkappa Gowda; 2000 : Taltaje Keshava Bhatta, C.H. Mahadeva Nayak, M.T. Dhoopada, T.S. Rajappa and M.A. Jayachandra.

#### **Jaanapada Sahithya Award Winners**

Archaka Rangaswami Bhatta, Bhandihole (1980), Ishwarchandra Chintamani (1981), D. Lingaiah (1985), L.R. Hegde and Sudhakar (1986), M.S. Sunkapura (1988) and Jyothi Hosur (1989).

The Academy honours the folklore scholars and artistes every year by granting annual awards. So far, 421 distinct artistes have won Annual Awards sanctioned by the Jaanapada Yakshagana Academy.

#### **Theatre in Karnataka**

The first written play in Kannada belongs to the 17th century A.D. It was titled 'Mitravrinda Govinda' and was written by a Mysore Court poet called Singararya. It was an adaptation of Sri Harsha's Sanskrit Play 'Ratnavali'. As the literary scene in Karnataka was dominated over-whelmingly by Sanskrit almost everyone could understand Sanskrit plays and as all the Kannada poets modelled their poems on great Sanskrit poems, they took pride in composing poetry than in writing plays. Thus Sanskrit plays were the only ones available until the 17th Century. Gradually the writing of plays in Kannada by eminent Kannada writers picked up. Looking at the situation in a historical perspective, we see that writing of plays was at a time considered vulgar and of cheap taste.

A revolutionary change came over the Kannada people's theatre when the stories of the two Sanskrit epics- the Ramayana and the Mahabharatha- were made available to them through in oral tradition. The hold of these epics on the psyche of illiterate common people can be gauged from the fact that to this day the majority of the themes of their plays come from the stories of these epics. Dance and music predominated such plays. Gradually plays were written to placate gods to bestow goodwill on the subjects were written. this give rise to Yakshagana, Bayalata, Krishna Parijata and many other forms of folk theatre. The British colonialists also contributed in a great way for the development of the theatre. They brought

with them theatre troupes, which performed plays of Shakespeare and other popular plays in English. Encouraged by this, translations of these English plays appeared and they were staged successfully.

Gradually, to cater to the people's tastes, plays with a lot of dance and music in them were written. In the early days, people of low castes, who worked as labourers in the day time were illiterates, used to perform on the stages. Gradually it changed and all sorts of people started acting in plays. Many literates started performing and another fact was that earlier, only men used to appear on the stage. After a time, changes in society encouraged women also to appear on the stage. Professional drama troupes started touring the state and performing at different centres. Some very old troupes like the Gubbi Company toured the state successfully. They made a name even in the neighbouring states and flourished. In North Karnataka, the companies like the Konnur Company, the Shirahatti Company, the Vishwa Gunadarsha Company, etc., who had talented actors and singers like Yallamma, Gurusiddappa, Venkoba Rao, Garud Sadashiva Rao, Master Waman Rao and others, gained prominence. In Southern Karnataka, there were eminent people like Varadachar, Gubbi Veeranna, Mohammed Peer, Malavalli Sundaramma, Subbayya Naidu, R. Nagendra Rao, Hirannayya and others. Thin stories, uninspiring dialogues and melodrama notwithstanding, these artistes held the audience spell bound by their melodious voices and irrelevant comedy. In spite of all this, failing to respond to growing social consciousness and unable to compete successfully with cinema as a source of entertainment, commercial theatre slowly disintegrated. The latter part of the 19th Century and the early 20th Century were the best times for the commercial theatre.

Amateur theatre was the theatre of the educated people. It catered people of refined tastes and it has variety in subjects. Kalidasa's *Shakuntala* was translated into Kannada by Basavappa Shastri in the Mysore court. These plays required educated artistes. This movement helped in bringing to light more and more educated Amateurs. In 1909, Amateur Dramatic Association (A.D.A.) was started in Bangalore, Bharata Kalottejaka Sangha (1904) in Dharwad, Young Men's Football Association of Gadag etc.,

The movement got a fillip in the second decade of the 20th Century when Kailasam (Bangalore) and Narayanrao Huilgol (Gadag) wrote their first original plays. To begin with, they were a protest against the melodramatic commercial theatre. Secondly, they touched current social problems; and thirdly, they did away with music, dance and irrelevant comedy. Kailasam was a genius with his ready wit. Vasudeva Vinodini Sabha, Kannada Amateurs etc., were the new groups. There were playwrights like Ksheerasagar, A.N. Krishna Rao, Parvatavani, Kaiwar Raja Rao, Sri Ranga and others. In the earlier years, the amateur theatre was mostly a theatre to be heard. The amateur theatre was a protest against the artificiality of professional theatre. The language of the dialogues was as near the colloquial style as the pompous, artificial dramatic rhetoric of the commercial theatre was farther from it. It was this which brought about an intimacy between an audience and the play. After Independence, amateur theatre saw a spurt of activity. Academies were established, subsidies were granted, drama festivals were conducted and competitions were arranged. National school of Drama established in Delhi trained some aspirants from Karnataka along with others. Sri Ranga introduced them to the Kannada amateur theatre. In the commercial theatre the audience used to watch a great actor or listen to a great singer in that particular troupe but in the case of amateur theatre they went to watch the play itself.

Thus, the need for a capable director was felt. Talented directors like B.V. Karanth, came into the limelight.

The latter part of the twentieth century was a period of assimilation of various Western ideas on theatre and following some of their practices regarding theoretical activity. Due to these inputs, contemporary theatre movement gained momentum. In 1945, Parvathavani's 'Bahaddur Ganda' (a transcreation) was staged 150 times continuously in which child prodigy Yamuna Murthy, the first lady artiste to appear on the Amateur Stage, played the lead role. Among the playwrights of the romantic period, Sriranga and G.B.Joshi could understand the new wave of theatre and wrote plays accordingly, and this happened after 1955, the reason being a change of outlook with the advent of freedom to the country.

Among the present day playwrights Girish Karnad, Lankesh, Chandrashekar Patil, Chandrashekar Kambara, B.C. Ramachandra Sharma, A.K. Ramanujan, Keertinatha Kurthakoti, N.Ratna and Puchante are the important people who contributed to the movement. New directors like B.Chandrashekar, B.V.Karant, M.S.Nagaraj, K.V. Subbanna and N.Ratna rose to the occasion. plays like 'Yayati', 'Tughlaq', 'Kelu Janamejaya', 'Teregalu', 'Jokumaraswamy', 'Appa', 'Kunta Kunta Kuruvatti', 'Neelikagada', 'Neralu', 'Brahmarakshasa', 'Ellige', 'Yamala Prashne' etc., are important and popular even to this day.

Sriranga has been a pioneer in this field. He has about 45 plays to his credit and all his plays reflect social situations in the state. 'Harijanavara', 'Prapancha Paripattu', 'Sandhyakala', 'Shoka Chakra', 'Kelu Janamejaya', 'Nee Kode Naa Bide', 'Swargakke Mure Bagilu', and 'Agnisakshi' are some notable plays of Sriranga. The contributions of others are equally significant. Among them G.B.Joshi, Girish Karnad, P.Lankesh, Chandrashekar Kambara are very important. Some plays worthy of mention of these writers are 'Ma Nishada', 'Hayavadana', 'Anju Mallige', 'Hittina Hurja', 'Kranthi Bantu Kranthi', 'Sangya Balya', 'Baka', 'Neralu', 'Neeli Kagada', 'Jokumaraswamy' etc.

Recent theatre enthusiasts like B.S.Venkataram, Prasanna, H.K. Ramachandra Murthy, G.Shivanand, C.R. Simha and Ka.Vem. adopted or translated many English plays of Brecht and staged them. In the 1980's theatre enthusiasts like B.V.V. Raju, Srinivasa Raju, T.N. Seetharam, Vishnu Kumar, 'Shudra' Sreenivasa and D.R. Nagaraj have been successful in carrying the theatre tradition forward. B.V.V.Raju's 'Sandarbha' and 'Sannivesha', T.N. Seetharam's 'Asphota', Sreenivasa Raju's 'Nale Yaarigu Illa', 'Yarillige Bandavaru' and Vishnu Kumar's 'Donkubalada Nayakaru' have made them famous. The theatre movement has reached all districts centres while it was restricted to Mysore, Dharwad and Bangalore initially. Young directors like M.S.Prabhu, R. Nagesh, Ashoka Badardinni, T.N.Narasimhan, C.G. Krishnaswamy and veterans like Prasanna and Jayashree are in great demand. K.V.Subbanna of Heggodu near Sagar has won the prestigious international Ramon Magsaysay award for fostering the development of culture. This is a feather in Karnataka's cap. In the past decade, the theatre movement has undergone a sea-change. It failed to sustain the interest of the audience and the plays folded up with a whimper. Several important theatre personalities migrated to cinema and many others went out of Karnataka in search of greener pastures. To over-come this gloom, several trends came to the fore in this decade. Stage versions of popular Kannada novels, short stories and even poems, appeared on the scene, 'Chomana Dudi', 'Karimayi', 'Tabarana Kathe', 'Odalala', 'Samskara', 'Chidambara Rahasya', 'Chikaveera



Rajendra', 'Kalki', 'Helathena Kela', 'Saviraru Nadigalu', 'Vaishaka', Kusuma Bale', 'Bhoomigeetha', 'Kindari Jogi' etc., were staged.

Another trend was the one-man-show by C.R. Simha in 1983, titled 'Typical. T.P.Kailasam'. Its success encouraged several similar attempts like 'Neegikonda Samsa', 'Shakespiyarana Swapna Nowke', 'Rasa Rushi-Kuvempu Darshana' etc., came to light.

During this period several plays reached their hundred show-mark and notched up a rare feat in Kannada amateur theatre. Benaka's 'Sattavara Neralu', Kalagangothri's 'Mukhya Manthri', Ranga Sampada's 'Sangya Balya', Yashaswi Kalavidaru's 'Samsaradalli Sarigama', Sanketh's 'Nodi Swamy Naavirode Heege', Nataranga's 'Tughlaq', Vedike's 'Typical T.P.Kailasam'.

Several other institutions and dedicated theatre people at different centres of Karnataka are doing very useful service to the theatre movement. Amara Kala Sangha, Samudaya, Samathenthos (Mysore), Bhoomika, Abhivyakthi, Yavanika, Abhinaya, Ranga Bhoomi, Kalamandira, Nataranga, Prayogaranga, Ratha Beedi Geleyaru (Udupi), Ranga Nirantara among the groups, Dr. Damodara Shetty, Ananda Ganiga, Devi Prasad, I.K. Boluvaru (of Dakshina Kannada), Gopala Vajapeyi (Dharwad), Abhinaya Ranga, Garood (of Gadag), Srinivasa Thavarageri, Ashok Badardinni, Dhruvaraj Deshpande (of Bijapur), Sripathi Manjanabailu (of Belgaum), M.B. Patil and Girish Hiremath (of Raichur), Mudenura Sanganna (of Chigateri), Dr. Basavaraja Malsetty (Hospet), Vishwanatha Vamshakrithamatha (Ilkal), Cariappa (Kodagu), Suresh Anagalli, R. Nagesh, Prasanna, Basavalingaiah and many others are actively associated with several activities of the theatre. Outside the state also several persons and associations are striving to spread the essence of Kannada drama. Venugopala (Kasargod), Ballals, Manjunath, Karnataka Sangha and Mysore Association (all of Bombay) and Karnataka Sangha, Kannada Bharathi Narayan Rao, Prabhakar Rao and Nagaraj (Old Delhi).

In the second half of the decade, significant plays emerged. H.S. Shivaprakash wrote 'Manteswamy Katha Prasanga' and 'Madari Madayya'. T.N. Seetharam's 'Nammolagobba Najukaiah', Gopala Vajapeyi's 'Doddappa', C.R. Simha's 'Bhairavi', Chandra Shekara Kambara's 'Siri Sampige' and Girish Karnad's 'Thale Danda' and 'Nagamandala'. 'Suthradhara Vartha Patrike', now changed its name as 'E Masa Nataka' and 'Ranga Tharanga' are the two news letters documenting theatre activities. Hubli has 'Ranga Thorana'.

A tragical loss to the amateur theatre was the accidental death of young talented actor-director Shankar Nag in 1990. Kannada amateur theatre also went abroad in this decade. C.R. Simha's 'Typical T.P. Kailasam' created a record by being the first play to travel outside India by presenting sixteen shows in America and Canada in 1986. B. Jayashri took her 'Lakshapathi Rajana Kathe' to Egypt and Bulgaria. Prabhath Kalavidaru went out to the Far East and the U.S. Mysore's Rangayana presented its 'Hippolytus' in New York.

K.V. Subbanna's 'Nee Naa Sam' and 'Thirugata' and the State Government's 'Rangayana' at Mysore are active. With talented directors like Chidambara Rao Jambe, K.V. Akshara, K.G. Krishnamurthy and guest director Prasanna. 'Thirugata' has been coming out with three or four productions every year. Rangayana, a State run Theatre Repertory was headed by B.V. Karanth. With trained and talented people like Jayatirtha Joshi, Basalingaiah,

Raghunandan and Gangadharaswamy, Rangayana has come out with significant productions like 'Kindari Jogi,' 'Shakeshpeyarige Namaskara', 'Kusuma Bale,' 'Bhoomi-geeta' and 'Hippolytus'. Basavalingaiah has taken over the Directorship of Rangayana after B.V. Karanth. 'Prayogaranga and Yuvaranga, apart from their own productions, organise drama competitions regularly in Bangalore to encourage college and industrial drama groups, C.G.K's Ranga Niranthara organises play writing by a group of young writers.

Karnataka Nataka Academy, in the last ten years has provided a lot of impetus throughout the state, by organising workshops, festivals and by providing financial grants to deserving professional companies. To help the theatre people monthly pensions are being sanctioned. Dr. Rajkumar, Famous Cine Artist is conferred with title "Kala Kousthubha" by the Karnataka Nataka Academy and "Karnataka Ratna" by the Department of Kannada And Culture. Dr. Gubbi Veeranna Award which is considered as the highest Theatre Award, established in the year 1994 is being given by Department of Kannada and Culture, to the best Theatre personalities. The following are the persons who have bagged this award upto 2000 : Enagi Balappa (1994), B.V. Karanth (1995), Girish Karnad (1996), Master Hirannayya (1997), H.K. Yoga Narasimha (1998), P.B. Duttaragi (1999) and H.N. Hoogara (2000).

#### **Karnataka Nataka Academy Award Winners**

Awards are given to the best theatre personalities annually by the Karnataka Nataka Academy, recognising the services rendered by them in field of drama. Till the year 2000, four hundred artistes have been honoured with these awards. From 1990 to 1994 sixtytwo drama artistes are honoured with Fellowships of Nataka Academy. Sri Sangameshwar Natya Sangha has been awarded with "Annual Company Award" as the best theatre in 1993 by the Nataka Academy.

#### **Paddanna Shrama Prashasthi**

The Karnata Nataka Academy have established Paddanna Shrama Prashasthi from the year 1998, to the back stage artistes. This Award is given to 72 persons, so far, for their contributions towards enrichment of theatrical activities.

#### **Yakshagana**

Yakshagana, one among a number of folk theatrical forms of Karnataka is known by that name in recent times. In addition, earlier forms like 'Bayalaata', 'Bhagavatharaata' or 'Dashavatara ata' also existed . It acquired its present name because these plays were written in the form of musical dramas and that particular style of music was called Yakshagana. This term now has become a synonym for the theatrical form too.

We get rich harvest of Yakshagana plays from 16th to 18th Centuries in Karnataka. In about the 16th and 17th Centuries Siddendra Yogi the founder of the Kuchipudi School of dance wrote his plays in the Yakshagana style. Thirthanarayana Yati, the disciple of Siddendra Yogi took these plays to Tanjore. Later, most of the 300 and odd playwrights came from the coastal regions of Karnataka, mainly Dakshina Kannada. Old playwrights had exploited the Yakshagana style of music for every type of emotions and situations in their songs and dramas. Over 160 'ragas' were used in their compositions, though today Bhagavatas are rarely conversant with 30 ragas or so. There are few ragas that are not found even in classical music. Nepali, Gujarati, Madhavi, Panchagati, Gopanite, Huvu, Divali, Charite, Haradi,

Mechale etc. are some of them. The themes for the play are selected from the Ramayana, Mahabharata, Bhagavata and the Puranas. Barring a few narrative lines, all the rest was set to raga and tala. One essential element of depiction consisted of music and the other, dance. Both had simple literary material as their basic text. The dance elements had good support from percussion instruments like Chande, Maddale and cymbals. The characters of the play wore ankle bells ('gejje') too. The essence of the drama was conveyed to the audience in prose which is dependent on the textual content of the songs.

To an audience not conversant with the Kannada language, the range of costumes and make-up seemed to capture the grandeur of a wonderland, which was ably supported by a rich musical background. In totality, Yakshagana theatre is one of the few rich theatre forms that has persisted even today. The ethical and religious background provided by temples have yielded to commercialism, bringing with it all the evils of popular entertainment.

Towards the beginning of this century, there were a number of Yakshagana troupes, sponsored by prominent temples in the district of Dakshina Kannada. Saukur, Marnakatte, Mandarthi in the north, Mulki, Dharamasthala and Koodlu in the south are prominent among them. The temples concerned used to maintain them from their funds and some devotee of the temple used to pay for each performance which was free to the audience. There were quite a number of local patrons in the villages too. The plays were staged each night on special request. The actors and dancers who were originally agriculturists, served in the plays more as service to the deity than as a profession.

From 1940's things began to change very much in the institutional set up of the troupes. Temples began to auction the rights of conducting the shows. By then, the influence of the commercial drama troupes had attracted people very much and Yakshagana artistes began to copy the stage costumes and slowly discard traditional dance. Another feature, namely, the running of the troupes on a commercial basis with tents and allowing spectators entry into the tent by selling tickets, began to gain ground; with this the total attitude of Yakshagana theatre changed.

Now, there are a dozen commercial troupes and very few temple troupes maintained by devotees that offer free performance. Yakshagana has become a financial success by catering to mass appeal. Many traditional elements of the Yakshagana theatre have been left in the cold. Prose has eclipsed dance. Like the cinema's craze for novelty, new themes are gradually replacing all old popular themes based on puranic and epic ones. Vulgarity in dialogue has become the chief element in creating mass appeal. A few prominent Yakshagana troupes are from Ira, Surathkal, Saligrama, Amrutheshwara, Perdoor and Idugunji. Among old temple troupes those belonging to Mandarti, Dharmsthala, Katil and Maranakatte still thrive, but there too the trend of giving up old plays seem to gain ground. The M.G.M. College of Udupi has a Yakshagana Kendra where about a dozen students are taught traditional dance and Yakshagana methods. Two more training centres have been started at Kota and Dharmasthala in 1972. The creative art form of Yakshagana with its rich costumes, dance and music has great potential but the people have yet to realise its greatness. All efforts of bringing out Yakshagana as a sophisticated art form have received scant respect and encouragement.

Several artistes of Yakshagana have enriched the art by their efforts. Veerabhadra Nayak, Uppuru Narayana Bhagavata, Irodi Sadananda Hebbar, Polali Shastri, Malpe

Shankaranarayana Samaga, Movvaru Kittanna Bhagavatha, Alike Ramayya Rai, Haaradi Krishna Ganiga, Haaradi Narayana Ganiga, Haaradi Rama Ganiga, Damodara Mandecha, Basava Naik, Bailpa Subbaraya, Hiriyaadka Gopala Rao, Agari Srinivasa Bhagvata, Kuriya Vithala Shastri, Udyavara Madhava Acharya etc., are among the noted exponents of Yakshagana from Dakshina Kannada. Keremane Shivarama Heggade (Kendra Sangeetha Nataka Academy awardee in 1971), K. Sadananda Heggade, Ganapathi Bhatta, Mudkani Narayana Heggade (Kendra Sangeetha Nataka Akademy awardee), Babu Bhatta, etc., are among the noted artistes in Uttar Kannada.

Yakshagana is very popular even in other parts of Karnataka and it is identified as 'Mudalapalya'. Aparala Tammanna the author of 'Sri Krishna Parijata,' Kulagoda Tammana of Kulagodu in Belgaum district and Aliya Lingaraja of Mysore are famous Yakshagana poets. In the coastal region, Nanjaiah, Parthi Subba, Halemakki Rama, Hattiangadi Ramabhatta. Venkata Ajapura, Nityananda Avadhuta, Pandeshwara Venkata, Gerasoppe Shanthappaiah, Nagire Subrahmanya, Dhvajapurada Nagappaiah, noted Kannada poet Muddanna and Halasinahalli Narasimha Shastry are among the noted writers. In Dakshina Kannada there are two school of Yakshagana, called Tenkutittu (Southern) and Badagutittu (Northern). They vary in costumes, dance and other aspects differ from each other. Many Telugu Yakshaganas also came to be written in Karnataka and among these Kempe Gowda, the feudatory of Bangalore composed 'Ganga Gowri Vilasam', Many more such works were composed in the Mysore Court. In Puppet Theatre too, the text and theme is of Yakshagana itself. Uppinakuduru Kogga Kamath from Dakshina Kannada is an outstanding master of this art.

Mudala Paya is the variety of Yakshagana seen on the plateau, as mentioned above. An institute to foster it is functioning at Konchalli in Tiptur tq, by the efforts of Prof. J.S. Paramashivaiah, noted folklorist. The Mysore University Folk Arts Department also promotes this school. In Gulbarga and Dharwad areas it is called Doddatta. Karibhantana Kalaga, Sarangadhara, Kumara Ramana Kathe are popular themes. Basavaraja Malasetty at Hospet and Basavalingaiah Hirematha of Kittur are noted directors in the field. Narasappa Bhagavata of Konchalli, Puttashamachar of Bellur (Mandya dt.) Yatirajayya, (Gondetahalli) are some of the artistes from Southern Karnataka. Monappa Sutar from Afzalpur, Budeppa from Byahatti, Najundayya Hiremath from Talur (Sandur tq), Ganachari from Gogi and Chandanna Gogi from Hugar (Shahpur tq) are among the artistes of this school.

### **Painting in Karnataka**

The earliest paintings of Karnataka are of the pre-historic period around 2000-1000 B.C. The representations of animals, human figures etc., are painted beneath the projected rocks which formed the dwelling place of the prehistoric people. Such relics of the art of prehistoric man could be seen in the districts of Bellary, Bijapur, Bagalkot, Koppal, Raichur and Chitradurga. The rocks of Hirebenakal, Piklihal etc., contain figures of hunters with weapons, horse-riders, bulls, etc. Many coloured figures on mud pots are plentifully found in Brahmagiri, Chandravalli, Hemmige, Herekal, Maski and Bangalore. The art of painting and its existence in the historical period have been referred to in the contemporary literature and inscriptions. Roots of painting clearly encouraged in Karnataka may be traced to the days of the Chalukyan ruler Mangalesha and only traces of the paintings of his time are surviving in Cave III of Badami. Due to historical factors, there are gaps in the continuity of

this tradition of painting in Karnataka. We come across illustrated manuscripts 'Dhavala' at Moodubidare belonging to the Hoysala period. The figures, settings and the postures are different from the Kalpasutra paintings of Gujarat, illustrating the same themes. The style is distinctly indigenous and leave an impression of the ornamentations in Hoysala sculptures. Many references to portraits and pictures are made by Kannada poets like Rudrabhatta. "Manasollasa" by Emperor Someshwara III has a section on this art.

A study of the paintings of the Vijayanagara period reveals that mural painting was practised on a large scale. The earliest such specimens are found on the ceilings of the Virupaksha temple at Hampi. A close study of the paintings in Karnataka indicates that instead of reflecting life as it was during those periods, the painters had adopted conventionalised settings, highly stylised postures, all bound strictly by the dictates of the Aagamas. The paintings seem to be pictorial versions of sculptures which are seen in abundance even today. Even secular themes followed these stylised postures. It is possible that almost all the major temples in Karnataka were decorated with such murals. The Mysore Gazetteer edited by C. Hayavadana Rao mentions many such temples where mural paintings are or were found in Karnataka. The Terumalleshwara temple at Hiriya, Narasimha temple at Sibi, the Jaina Matha at Shravanabelagola, Mallikarjuna temple at Mudukutore, Virupaksha temple at Hampi, Prasannakrishnaswamy temple, Krishna and Varaha temples at Mysore and the Divyalingeswara temple at Haradnahalli are among them. The Daria Daulat at Srirangapattana, Jaganmohan Palace at Mysore, the mansions at Nargund, Kamatagi near Bijapur and Nippani, Amminabhavi near Dharwad, Rama temple at B.K. Halli near Haliyal, private houses at Raichur, Guledagud and a palace at Channapattana also have paintings.

From the later Vijayanagar period, the art of paintings seems to have split into two branches. The Vijayanagar rulers and their feudatories followed the ancient tradition bound by the Aagamas while the rulers of Bijapur, Gulbarga and Bidar were responsible for the development of a distinct style known as the Deaccani style. The finest specimens of this school were produced at Bijapur. Though this school was heavily influenced by the Mughal style, it had strong indigenous strain.

The southern parts of Karnataka continued the ancient style which was developed at Vijayanagar. After the fall of Vijayanagar, the court migrated to different places in the South. The rulers of Mysore extended patronage to art. A considerable section of artists settled in Srirangapattana under the patronage of Raja Wodeyar. The colourful paintings on the pillars, walls, roofs, etc., of the Dariya Daulat at Srirangapattana are of varied themes and subjects. Similarly traces of paintings are available in the palace of Tipu at Bangalore. In addition to murals, the painters were also commissioned to illustrate manuscripts. Such illustrated manuscripts with attractive and colourful drawings were in the possession of many old families. The most famous of such manuscripts is the 'Sritatvanidhi,' a voluminous work prepared under the patronage of Mummadi Krishnaraja Wodeyar. This manuscript has nine parts, dealing with different topics, such as Shaktinidhi, Vishnunidhi, Brahmanidhi, Shivanidhi etc. The paintings illustrate ancient knowledge in the branches of the Aagama, Shilps, Jyothisha, Tantra, etc. The Jaganmohana palace has portrait pictures of kings and other nobility and pictures relating to puranic themes either in water colour or oil colours on clothes, glasses, etc. Sundaraiah, Kondappa, Yellappa, Durgada Venkatappa, Narasihmaiah and others adopted and developed this style. In those days, the painter prepared his own materials. The colours were from natural sources and

were of vegetable, mineral or even of organic origin. Gold leaf was applied on the gesso works and the hallmark of all traditional paintings of Karnataka. Besides paper, the painters painted on glass.

Raja Ravi Verma in the early decades of the twentieth century influenced many painters of the day in Mysore. Introduction of the European style of painting as a course of study at the Sri Chamarajendra Technical Institute, Mysore, relegated the older traditional painting style to the background and produced a new generations of painters trained in the Western modes and style of painting.

Many painters were trained in different centres in India and even abroad, People like K. Venkatappa, Pavanje, K.K. Hebbar, K.S. Kulkarni, Almelkar, S.G. Vasudev, N.S. Subbukrishna, K. Keshavaiya, S.N. Swamy, Y. Subramanyaraju, Dandavathimath and N. Hanumaiah are artists of outstanding merit and reputation.

Among other artists of the state, S. Nanjundeswamy of Mysore has made an impression by his renderings on all aspects of the art of painting. M. Veerappa, S.R. Swamy and H.S. Inamati are noted for their composition drawings and paintings, mainly of the Indian tradition. Shankar Rao Alandkar of Gulbarga is famous for his paintings which are intense with emotions. V.R. Rao, S.S. Kukke and R. Sitaram are adept at portrait painting. The composition paintings of Janab Sufi and the exquisite incorporation of the art of painting in inlay works by Mir Shoukat Ali of Mysore are memorable. Paintings of the historical episodes by Y. Subramanya Raju show an ideal admixture of Indian and Western systems of art. Ragamalika Paintings of M.V. Minajigi and the technique of mixing of water colours by M.S. Chetti in his paintings are superb. M.T.V. Acharya was noted for his paintings based on puranic themes. The portrait paintings is superb. The portrait paintings of S.N. Swamy in oil colours and his pencil sketches, landscape paintings of Tanksale, N. Hanumaiah and F.G. Yelavatti in water colours delight even a novice in art. Y. Nagaraju, B.H. Ramachandra, S.R. Iyenger, D.V. Halbhavi, S.M. Pandit, S.N. Subbukrishna and M.H. Ramu were experts in portrait painting. Rumale Channabasavaiah, Shuddodhana, Subbukrishna, M.S. Chandrashekhar and P.R. Thippeswamy have a typical style of exposing the rural life in varied colours. P.R. Thippeswamy was also an expert painter of scenes of temples and shrines.

Effective line drawings and caricatures are also another aspect of the art of Technical Education. Many private institutions have been established in centres of Karnataka. The government conducts examinations on modelling. The Karnataka Lalitha Kala Academy assumed its present format in the year 1977. This Academy arranges annual exhibitions and art shows. It has also instituted awards that are given annually to outstanding works of art. The Academy encourages holdings of art exhibitions and purchase of useful books by making liberal grants. The Academy has built up its own collection of works of art. Art camps are organised by the Academy in different centres of the state. Central Lalith Kala Academy is located at Delhi with its South Zone Cultural Centre in Chennai and South Central Cultural Zone in Nagpur. Bangalore city had the privilege of hosting many prestigious art exhibitions. Several camps have been organised by the Zonal Centres in which artists selected from the state participated. The academies also conduct periodic seminars on art and bring out systematic publications on the subject. 'Kalavartha' is the magazine brought out by the Lalitha Kala Academy.

Kondachari of Bellary, Purushottam, Agaram Krishnamurthy, Sherigar, Bayiri, T.K. Rama Rao and K.B. Kulakarni of Hubli and others are famous for their line drawings.

R.K. Lakshman, R.S. Naidu, Murthy, Ramesh, Gopal, Hublikar, Ranganath, N.C. Raghu, Gujjar, Pa. Sa. Kumar, S.K. Nadig and others are famous for their caricature drawings. P. Subba Rao, R.M. Hadapad, G.S. Shenoy, S.G. Vasudev, Alfanzo, Dandavatimath, Halabavi, M.C. Chetti, Vijayasindur, U. Bhaskar Rao, K.T. Shiva Prasad, Shankar Patil, Chandranatha Acharya, J.M.S. Mani, B.G. Badigera, T.P. Akki, S.M. Pandit, Ramananarasaiah, Raghottama Putti, Goolannanavar, M.E. Guru, S. Kalappa, M.S. Nanjunda Rao, M.B. Basavaraj, Vishnudas Ramadas, Sunkad, Manoli and others have enlivened the art scene in the state. P.R. Kamalamma, Subhashinidevi, S. Dhanalakshmi, M.J. Kamalakshi, Sheela Gowda, Pushpa Dravid, Pushpamala etc., are among the noted lady artists. Siddalingaswamy, Nagendrasthpathi and Mahadevaswamy are noted artists in classical paintings and drawing of traditional themes.

There are many constructive art critics of whom G. Venkatachalam of Pandavapura, Shivarama Karanth, A.N. Krishna Rao, S.K. Ramachandra Rao, B.V.K. Shastry and P.R. Thippeswamy are note-worthy. Art schools started by A.N. Subbarao, R.M. Hadapad, M.S. Nanjunda Rao in Bangalore. Halbhavi at Dharwad, Minajigi at Hubli, Akki at Gadag and Andani at Gulbarga have become famous. The Government has established institutes to impart training in this field. The Chamarajendra Technical Institute at Mysore was started in 1913 and the School of Arts and Crafts, (now University Lalitha Kala College), Davanagere was established in 1964. Karnataka State Government presented a bus to the Academy which has enabled it to organise mobile art exhibitions. The vehicle moves in different places and works of art are exhibited in it. The exhibition is arranged at venues where the academy conducts its programmes like art exhibitions, art camps, seminars, symposia and during the Dasara and Sahitya Sammelanas. The state government honours outstanding artists with awards instituted by the Lalithakala Academy and during the Rajyotsava.

Prominent among the award winners are N. Hanumaiah, P.R. Thippeswamy, K.K. Hebbar, S.S. Kukke, Madhugiri Ramu, Y. Subramanyaraju, F.M. Soofi, S.V. Nayak, N. Pushpamala, M.C. Chetty, R.G. Raichur, V.G. Andani, L.P. Ananchan, Venkatachalapathi, S.G. Vasudev. Many artists have also been conferred with honorary doctorates by the premier Universities of the state. K. Venkatappa award with a cash prize of Rs. One lakh been instituted and K.K. Hebbar is its first recipient (1994). and D.V. Halabhavi (1995), M.C. Chetty (1996), P.R. Thippeswamy (1997), R.M. Hadapad (1998), M.J. Shuddhodhana (1999), and M.S. Chandrashekhara (2000) subsequently.

The following artists from the state have won the Central Lalithakala Academy Awards 1958-2000.

1. K.K. Hebbar, 2. S.G. Vasudev, 3. Balan Nambiar, 4. Yousuf Arakkal, 5. Vijaya Sindhoo, 6. L.P. Ancnan, 7. K.R. Subbanna, 8. N. Pushpamala, 9. K.S. Rao, 10. R. Umesh, 11. V.G. Andani, 12. M.B. Lohar, 13. Shesha Rao Biradar, 14. G.R. Eranna, 15. Veerandra Sha, 16. Ranganath and 17. Ravi Kashi.

Karnataka Lalitha Kala Academy was founded in 1965. Upto 2000 (with a gap between 1973-80) 134 artists are honoured by the Academy.

#### **Karnataka Shilpakala Academy Award Winners**

Karnataka Shilpkala Academy has started functioning since 1996. Upto 2000 a total number of 26 Sculpturists are felicitated and they are : 1996 : K. Seetharamachar,

K.S. Sridharachar, J.M. Bhaskaracharya, Shamba Anantha Shet and K.C. Puttannachar; 1997 : C. Siddalingaiah, Ru. Kalacharya, Savitramma, Laxminarayanacharya and Venkatachalapathi; 1998 : N.M. Badigera, D.M. Shambhu, R.V. Veerabhadrachar, B.N. Channappacharya and N. Pushpamala; 1999 : Datta Iraiah Shet, J. Manjunathappa, T. Shivaiahchar, Kanaka Murthy, D.H. Kulkarni and Ishwaraiiah Badigera; 2000 : B.S. Mayachar, K. Kashinath, S.S. Maligachar, N.B. Sabannavara and D.A. Deshapande.

Jakanachari Award was introduced by the Department of Kannada and Culture in 1995 for outstanding sculptors C. Parameshwaracharya (1995), N.G. Neelakanthacharya (1996), G.D. Mayacharya (1997), V. Ramachandra Shetty Gudigar (1998), K. Shamacharya (1999) and M. Parameshwaracharya (2000), are awarded.

### **Music in Karnataka**

Indian classical music consists of two systems called Hindustani and Karnatak. Interestingly both these systems are prevalent in Karnataka. The Tungabhadra river more or less divides the domaine of these two in this state. The word 'Karnatak' in the context of music denotes a system of music prevailing in all the four states of the South India, i.e. Karnataka, Andhra Pradesh, Tamilnadu and Kerala. In the evolution of music, the role of Karnataka has been very significant.

Music, like literature and other creative arts, has been cultivated in Karnataka from ancient times. It was an indispensable part of the social and religious life of the people. Texts on music generally mention ancient theoreticians but not the performers who gave shape to these musical ideas. Bharata's 'Natya Shastra,' perhaps the oldest treatise on the subject seems to have been known in Karnataka from early times. The most notable work is Matanga's 'Brihaddeshi'. This work deals elaborately with the science of music of the folk songs of his time. Matanga was the first to use the word 'raga' for the melodies that were current in his time and this probably laid the foundation for the raga system of the present day music. Sharngadeva who was patronised by the Yadava (Sevuna) king of Devagiri, has given a total number of 26 'ragas' in his work, 'Sangeetharatnakara'. Between the 11th and 17th Centuries only 32 ragas were in use and this is evident from a Vachana of Basavanna. Venkatamakhi (1660 A.D.) formulated his scheme 72 melakartas and the classification of ragas was completed by him.

A large number of theoretical works on music and dance were written by authors of Karnataka origin. The prominent were 'Abhilashitartha Chintanmani' also called the 'Rajamanasollasa,' 'Bharata Bhashya', 'Sangita Sudhakara' written by Haripala, 'Sangita Chudamani,' Vidyaranya's 'Sangita Sara', 'Bharatasara Sangraha', 'Viveka Chudamani;', 'Sangita Suryodaya', 'Tala Deepika', 'Sangita Sudha,' 'Chatrudandi Prakashika,' 'Sadruga Chandrodaya.' 'Ragamanjari,' and 'Nartana Nirnay,' (these three by Pundalika Vithala), 'Shivatatva Ratnakara,' 'Geetagopala,' 'Sritattvanidhi,' 'Shruti Siddanta,' etc.

An abundant variety of instruments were in use in Karnataka. The Kannada poets were well aware of the classical four fold divisions of musical instruments into string, wind, percussion and solid. They also reveal familiarity with an astonishing number of these instruments which were in vogue. Among the stringed instruments kinnari, vellaki, vipanchi, ravanahasta, dandika, trisari, jantra, swaramandala and parivadini find a mention. Shankha, shringa, tittira, kahale, vamsa, bambuli are the wind instruments mentioned. Among the



large number of percussion instruments ottu, karadi, mridanga, dhakka, patha, dundubhi, panava, bheri, dinidima, traivali, nissala, dhamaru, chambaka, dande, dollu and runja are prominently mentioned. Some solid instruments used were ghanta, jayaghanta, kinkini, jhallari, tala and kamsala. Palkuriki Somanatha mentions about 32 types of veenas and 18 types of flutes.

Khanda, Shukasarika, Tripadi, Chatushpadi, Shatpadi, Varna, Dhavala, Suladi, Pada, Vachana, Kirtana, Tattva, Ugabhoga were the different types of composition. Karnataka had a great number of reputed composers whose compositions are popular and relevant even today. There were many composer of the Veerasaiva faith like Sakalesha Madarasa, Basavanna, Nijaguna Shivayogi, Muppina Shadakshari, Bala Leela Mahanta Shivayogi, Nagabhushana Ghanamatarya, Madivalappa Kadakola, Nanjunda Shivayogi, Karibasavaswamy and Sarpabhusana Shivayogi. The Haridasa Kuta is said to have been founded by Narahari Teertha, the disciple of Madwacharya. Sripadaraya was called Haridasa Pitamaha. The Haridasas composed songs in Kannada in praise of Lord Vishnu. Vyasaraaya, Vadiraja, Purandaradasa, Kanakadasa and others composed Kirtanas. Mummadi Krishnaraja Wodeyar was also an able composer.

Purandara Dasa strode like a clossus in the musical history of Karnataka. 'Pillari geetas' composed by Purandarasa form the foundation for learning Karnataka music even today. Purandara Dasa is revered as the 'Karnataka Sangita Pitamaha' and is credited to have given a new direction to Karnatak music.

In the 19th and 20th centuries, there was a marked separation of the popular and classical compositions. Mysore Sadshiva Rao adorned the royal court of Mysore and was the guru of celebrities like Veena Subbanna, Sheshanna and others. Mysore Sadashiva Rao, Subbanna, Sheshanna, Sambaiah, Muthaih Bahgvathar, Mysore K. Vasudevacharya (composed in Kannada, Sanskrit and Telugu), Devottama Jois, Karigiri Rao, Bidaram Krishnappa, Mysore T. Chowdaiah, Jayachamaraja Wodeyar, Aliya Lingaraja, Veena Krishnacharya, Rudrapattnam Venkataramanyya, Tiruppanandal Pattabhiraamaiah, Kolar Chandrashekara Sastry, Bellary Raja Rao and others have left behind a rich tradition of their compositions. Among the lady musicians mention may be made of Bangalore Nagarathamma who renovated the samadhi of Sri Tyagaraja at Thiruvaiyar.

The reign of the Wodeyar of Mysore may be considered the golden age of music in Karnataka. They extended patronage to local musicians and also musicians of other regions. Veena Bhakshi Venkatasubbayya, Shivaramaiah, Pallavi Ramalingaiah and Lakshminarayana were prominent among the musicians of the state who received royal patronage. Other eminent vocalists who lived elsewhere or graced the Mysore durbar were Sadshiva Rao, Lalgudi Ramayyar, Mugur Subbanna, Krishnayya, Karigiri Rao, Bhairavi Kempe Gowda, Rudrappa, Janjhamarutam Subbayya, Lalgudi Guruswamy Iyer, Bidaram Krishnappa, K. Vasudevacharya, Tiruvaiyaru Subramanya Iyer, Kolar Nagarathanamma, Shatkala Narasayya, Chikka Rama Rao, Belakavady Srinivasa Iyengar, Chintalpalli Venkata Rao, B.Devendrappa and T. Chowdaiah.

**Hindustani Music** : As mentioned earlier, Pundarika Vitthala (1562-1599), a native of Satanur near Magadi was proficient in both Karnatak and Hindustani music. Though the Mysore rulers mainly patronised Karnatak music, they also encouraged Hindustani music.

In the northern part of Karnataka, petty principalities of Ramadurga and Jamakhandi patronised Hindustani music. Eminent Hindustani musicians were employed in these durbars. Giants of Hindustani music like Balakrishna Raste, Ganapath Rao Raste, Nandopant Joglekar, Balanwantrao Vaidya, Dada Khare, Antubuva Apte, Balanwantrao Katkar, Alladiya Khan, Khan Abdul Karim Khan, Rahmat Khan, Ramakrishnabuva Vaze, Shivarambuva, Munji Khan, Vishnupant Chatre, Nilkanthbuva, Shankaradikshit Janthali, Siddarama Jambaldinni, Dattopanth Pathak, Panchakshari Gavai, Hanumantharao Valvekar, Vithalrao Koregaonkar and Ramabhau Kundgolkar (Savai Gandharava) were some artistes who resided permanently in these regions or graced these places with their music.

Some recent stalwarts in the Hindustani arena from Karnataka are Mallikarjuna Mansoor, Gangubai Hanagal, Basavaraja Rajaguru, Bhimsen Joshi, Kumar Gandharva, Devendra Murdeshwar, Vishudas Shirali, Puttaraja Gavai, Basavaraja Mansoor, Krishnabai Ramdurg, Phakeerappa Gavai, Gurubasavaiah Hiremath, V.V. Uttarkar, D. Garuda, N.G. Majumdar, R.S. Desai, Arjunasa Nakod, Sheshagiri Hanagal, Lakshmi G. Bhave, Manik Rao Raichurkar, Sangameshwar Gurav and Shyamala G. Bhave.

Many vocalists and instrumentalists have attained distinction and enriched the tradition of Karnataka by their original contribution. Among the vocalists, Chintalapalli Ramachandra Rao, Channakeshavaiah, Padmanabha Rao, T.N. Puttaswamaiah, R.S. Naayana Swamy, R.K. Ramanathan and R.K. Sirkantan, Kurudi Venkannacharya, Thitte Krishna Iyengar, L.S. Narayanaswamy Bhagavathar, B.S.R. Iyengar, A. Subba Rao, R. Chandrashekharaiyah, Pallavi Chandrappa, M.A. Narasimachar, Rallapalli Ananthakrishna Sharma, Sandyavandanam Srinivasa Rao, Srinivasa Iyengar, Vasadam Iyengar, Chokkamma, Neelamma Kadambi, Channamma, Papa Chudamani, etc. are prominent.

Among the instrumentalists, Veena players like Srikanta Iyer, V. Doreswamy Iyengar, Balakrishna, R.N. Doreswamy, M.J. Srinivasa Iyengar, R.K. Srinivasa murthy, R.K. Suryanarayana, R. Visweshara, Chokkamma, R. Alamelu, Suma Sudhindra and Rajalakshmi Tirunarayana are notable. The flutists include M.R. Doreswamy, B. Shankar Rao, V. Deshikachar, M.P. Upadhyaya, Rajanarayana, Shashidhar and Shashank (child prodigy). The notable violinists are R.R. Keshavamurthy, Anoor Ramakrishna, H.V. Krishnamurthy, A. Veerabhadraiah, Mahadevappa. M. Nagaraj and M. Manjunath, Sheshagiri Rao, A.V. Krishnamachar, H.K. Venkataram, Tatachar, Kanchana Subbaratnam, M.S. Subramanyam, M.S. Govindaswamy, H.K. Narasimhamurthy, T.G. Tyagarajan and B. Viswanath. Players of percussion instruments include M.S. Ramaiah, V.V. Ranganathan, Ramachar, M.S. Seshappa Bangalore. K. Venkataram, A.V. Anand, T.A.S. Mani, K.N. Krishnamurthy, V.S. Rajagopal, Rajachar, Rajakesari, Chandramouli, Bhadrachar, Praveen, Sonala Sheshagiridas, B.G. Lakshminarayana, Sukanya Ramagopal, Dattareya Sharma, Ananthakrishna Sharma and K. Muniratnam Naranappa (mukhaveena), Ramadasappa, Ravikiran (gotuvadya) and Kadri Gopalanath (saxophone), Narasimhalu Vadavatie, Bindu Madhava Pathak (Rudra Veena) and Rajiv Taranath (Sarodist) are other instrumentalists who are popular.

Gamaka art is an ancient one. The practitioners of this art in recent times include Joladarasi Doddanna Gowda, S. Nagesha Rao, B.S.S. Kaushik, H.K. Ramaswamy, Gunduramaiah, S. Vasudeva Rao, R. Shankarnarayana, Hosabele Seetharama Rao, G.B. Gopinatha Rao, Talakadu Mayigauda, M. Raghavendra Rao etc. There is a Gamaka Kala Parishat at Bangalore.

The romantic poetry of modern period derived a new style, melody and new musical form, called 'Sugama Sangitha'. This form of music was influenced both by classical Karnataka and Hindustani music and also western music. P. Kalinga Rao was a pioneer in this field. He was followed by Mysore Ananthaswamy who made this form of music extremely popular. C. Aswath, H.R. Leelavathi, Jayavanthi Devi Hirebet, Anuradha Dhareshwar, Shimoga Subbanna, Ratnamala Prakash, Malathi Sharma, Kasturi Shankar, Shyamala G. Bhave, B.R. Chaya, B.K. Sumitra, Shymala Jahagirdar, Yeshwant Halabandi, Usha Ganesh, Narisimha Nayak, Indu Vishwanath, H.K. Narayana, B.G. Ramanath and Y.K. Muddukrishna and others have made light music popular.

The Government of Karnataka has a separate section devoted to the advancement of music in Karnataka. The Secondary Education Board conducts examinations in music and awards certificates to the participating candidates. Many universities in the state offer courses at the graduation and post-graduation levels in music. The government also awards scholarships to talented and deserving candidates who are interested in learning music. The cassette revolution has made an immense contribution in popularising light music and also classical music by taking it into every household in the state. The role of the Kannada stage in popularising music is in no way small. Varadachar, Malavalli Sundramma, Aswathamma, Nagesh Rao, Subbayya Naidu, Gangubai Guledgud, Sonubai, Subhadramma Mansoor, Vajrappa, B.N. Chinnappa, Sarojamma Dhuttaragi, H.K. Yoga Narasimha are a few artistes who made a name in this field.

In addition, the annual music festivals like the Ramanavami and Ganesh Chaturthi, music festivals in Bangalore and Mysore, art festival in Hubli, Savai Gandharva Festival at Kundagol and a host of other music festivals conducted annually by different organisations and association are providing stimulus for the popularisation of music in the state. Several institutions run by organisations are training students and aspiring youngsters in music. Sri Ayyanar College of Music, Vijaya College of Music, Ganakala Mandira, Vijayakalamandira, Sri Venkateshwara Gananiya, Sri Vijaya Sangeetha Vidyalaya, Adarsha Film Institute, Vijaya Film Institute, (all founded in Bangalore), Sri Panchankshari Krupa Poshita Sangita Shala (Gudur, Bijapur), Sri Raghavendra Sangita Vidyalaya (Raichur), Tyagaraja Sangeeta Vidyalaya (Ramanagar), Sri Vanividya Society (Shimoga), Sri Panchakshari Lalitha Kala and Sangitha Kala Sangha (Bijapur), Suptha Mahilamandir, Tumkur, Lalitha Kala Vrinda, Karkala, Ekanatheshwari Sangita Kala Mandira (Chitradurga), etc. are some of the institutions affiliated to Karnataka Sangita Nritya Academy, Bangalore. In addition to this a large number of private institutions are running music classes in many urban centres of the state.

In the field of Music there are four different awards.

#### **Kanaka Purandara Award Winners**

Thitte Krishna Iyengar (1991), Gangubai Hanagal (1992), R.R. Keshava Murthi (1993), Bindumadhava Pathak (1994), Raghavendra Rao (1995), R.K. Srikantan (1996), Puttaraja Gavai (1997), M.S. Ramaiah (1998), Sheshagiri Hanagal (1999), Bhadragegi Achutadas (2000).

#### **State Sangeetha Vidwan Award Winners**

Puttaraja Gavai (1993), R.K. Srikantan (1994), Rama Rao V. Naik (1995), A Subba Rao (1996), Sangameswara Gurav (1997), N. Chokkamma (1998), M.A. Narasimhachar (1999), T.S. Tatachar (2000).

### **T. Chowdaiah Award Winners**

Ustad Bismilla Khan (1995), Veena Doreswamy Iyenger (1966), Rajeeva Taranath (1997), Kunnaikudi R. Vaidyanathan (1998), Pandit Ustad Allarakha (1999), T.K. Murthy (2000).

### **Santa Shishunala Shareef Award Winners**

Jayavanthi Devi Hirebet (1995), C. Ashwath (1996), H.R. Leelavathi (1997), Anuradha Dhaireswar (1998), Shimoga Subbanna (1999), H.K. Narayan (2000).

### **Dance in Karnataka**

As dance is a visual art, the visual impression of this dynamic art are lost on the sands of time. The tradition of dances current in Karnataka can be broadly divided as Janapada and Shista, the former being localised in certain area only whereas the latter has spread to other parts outside the state. Very few art lovers of yore have left any written literature on the then existing dance. The Tamil text 'Silapadhikaram' refers to a dance of the Kannadigas witnessed by the Chera king Sengoothavan. An inscription in Pattadakal reveals that Devadasis were engaged in 'Nritya seva' in temples. Ganga rulers like Durvineeta and Narasimhadeva Satyavakya are described as well versed in dancing and singing. During the Rashtrakuta and the later Chalukya periods, the courtesans had duties assigned to them in temples and they were accomplished dancers. Many inscriptions have praised Shantaladevi, the queen of Hoysala Vishnuvardhana as being an expert in dance. Bhandaru Lakshminarayana the Natyacharya in Krishnadevaraya's court was called Abhinava Bharata. Dancers and artistes were encouraged to perform during the annual Dasara celebrations by the Vijayanagar rulers. The Mysore court also encouraged traditional dance, following the footsteps of the Vijayanagar rulers. 'Manasollasa' of Someshwara III, Pundarika Vitthala's 'Narthana Niranay', 'Lasya Ranjana' of Simha Bhupala, 'Rasikajana Manollasini' 'Sara Sangraha' and 'Bharata Shastra' written by Venkatamudarsani, are works devoted to the arts of music and dancing.

Perhaps, the greatest phenomenon that contributed to the preservation and flourishing of dance in the state was the practice of Devadasis offering service in temples. By the end of the 19th century, in Mulbagal, Muger, T. Narsipur and Poovalavadi near Chintamani, there were as many as 200 professional dancing women living with a number of Nattuvaras (or dance masters). There were many Brahmin scholars well versed in Sanskrit, Bharatanatya and Abhinaya who taught the Devadasis the intricate art of Abhinaya. In the erstwhile Mysore state, it is heartening to note that Bharatanatya developed its own style, due to their efforts. There developed a repertory of Bharatanatya in which Mangalam, Stuti, Alaripu, Jatiswara, Vernam, Pada and Tillana came in a sequence. During that period Kavisvar Giriappa, Kashi Guru, Amritappa, Appaya, Dasappa, Kittappa and Jetti Tayamma are some reputed teachers, while, Venkatalakshamma, Puttadevamma, Ramamani and Muger Tripurasundaramma were dancers of repute.

Bangalore came to be recognised as a very important centre for the teaching of Bharatanatya. Between 1910-1930, the art and the artistes had a decline due to breakdown of social values and also due to the influence of Western education which eclipsed the traditional and indigenous art. After 1930, people like E. Krishna Iyer, Rukmini Arundale, Ramagopal, U.S. Krishna Rao and his wife Chandrabhaga Devi popularised this art in the 1940s.

During the wake of this renaissance in the 40s, many dance teachers gained ground in Karnataka. In the 50s the state of affairs changed with the foundation of the Central and State Academies of Dance, Drama and Music. These academies extended grants and aid to good teachers and institutions. Gradually, in the erstwhile Mysore state and later in Karnataka, the dissemination of the knowledge of dance art improved. Later, the then government of Mysore started the government examination in Junior, Senior and Proficiency grades in Bharatanatyam. The whole horizon of Bharatanatyam also changed after the Reorganisation of the State. As the 1970s dawned, Karnataka, especially Bangalore and Mysore could boast of many dance teachers and institutions capable of producing proficient dancers. The Bangalore University started the department of dance, drama and music. The future of Bharatanatyam therefore promises to be very encouraging in Karnataka.

Many institutions run by veterans of the art, are imparting training in Bharatanatyam and other styles. In Bangalore city, apart from the Mahamaya Nritya Peetha of Dr. U.S. Krishna Rao, the others like Keshava Nritya Shala of H.R. Keshavamurthy, Menaka Nritya Shala of T.S. Bhat, Bharata Natya Kalashale of Manikyam, Bharateeya Vidya Bhavana Nritya Kendra, Ganesha Nritya Shale of Lalitha Dorai, Saraswati Nritya Shale of Shekhar, Venkateshwara Natya Mandira of Radha Sridhar, Meenakshi Sundaram Pillai School of Leela Ramanathan, Chittaranjan Kalakshetra of C. Radhakrishna, M.V. School of Bharatanatyam, Sri Venkateshwara Natya Mandira and Gana Nritya Kalashale of V.S. Lokaiah and the dance schools run by Maya Rao, Narmada, Prathiba Prahalad and Vani Ganpathy are among the noted ones. Many other schools in all different centres of the state have gained reputation.

A dance village named Nrityagram was established in Hesraghatta on the outskirts of Bangalore city by the famous Odissi exponent, the late Protima Gauri. She had arranged for the training of students in all disciplines of traditional Indian dance under one roof in her Nrityagrama. The Institute continues to promote dance even after the death of the founder.

Even though Bharatanatyam scene is overwhelmingly dominated by female artistes, some men have stormed into this female bastion and have gained great reputation as worthy challengers. Some of them are, K.R.S. Prasanna, Dr. A.R. Sridhar, Ramoo, Arun, B.K. Shyamprakash and Rajendra.

Many artistes of great renown have been striving for popularising the art of whom, N. Gundappa and K. Venkatalakshamma, S. Sundramma, M. Jeamma, Subbamma, Chandrakantamma, Maya Rao, Shanta Rao, Chinnamma, U.S. Krishna Rao, H.R. Keshavamurthy and V.S. Koushik are noteworthy. Besides, Leela Ramanathan, B.K. Vasanthalakshmi, C. Radhakrishna, Radha Sreedhar, Lalitha Srinivasa, Padmini Ramachandran, Padmini Ravi, Usha Datar, etc. have become famous and have also gained international recognition and reputation.

#### **Natyarani Shantala Award Winners**

This Award is instituted by the Department of Kannada and Culture. The Awardees are: K. Venkatalakshamma (1995), Dr. U.S. Krishna Rao (1996), Sri U.S. Krishna Rao (1997), H.R. Keshava Murthy (1998), Maya Rao (1999), K. Muralidhara Rao (2000).

### Cinema in Karnataka\*

The Film industry in Karnataka has a history of over six decades. In their early phase, films produced in Karnataka were only based on themes from the Kannada Theatre. The first 'Mooki' (silent) film was produced and directed by Mohan Bhavanani with Yenakshi Rama Rao, Kamaladevi Chattopadhyaya, T.P. Kailasam, G.K. Nanda and other and it had the title 'Mrichchakatika'. During the 1930s two Bombay Industrialists, Haribhai R. Desai and Bhogial Dave established the first studio of Southern Indian in Bangalore named Surya Film Company and made about 40 silent films in about four years. During 1929, with the co-operation of Devudu Narasimha Sastri, Gubbi Veeranna and Algod of Belgium, an organisation named 'Karnataka Pictures Corporation' was established through which silent movies 'Harimaya', 'Song of Life' and 'His Love Affair' were produced. 'Sadarama', (1935), 'Hemareddy Mallamma' (1945), 'Gunasagari', 'Bedara Kannappa' (1954), 'Bhutarajya' and 'Domingo' were the prominent movies of that age with the last two being produced by Dr. Shivaram Karanth. Other notable films were 'Sati Sulocaha' 'Samsara Nauka', 'Vasanthasena,' 'Purandaradasa,' 'Bhakta Kumbara,' 'Mahatma Kabir,' 'Krishnaleela,' 'Chandrasahasa,' 'Bharathi,' 'Nagakannika' and 'Jaganmohini.'

The notable personalities who made an impact on the silver screen in the early times were T.P. Kailasam, M.G. Mari Rao, Gubbi Veeranna, R. Nagendra Rao, M.V. Subbiah Naidu, Tripuramba, C.T. Sheshachalam, M.V. Rajamma, B.R. Pantulu, Kemparaj Urs, Shanker Singh, B.V. Vithalacharya, H.L.N. Simha and B.S. Ranga, the last two of whom were instrumental in bringing the Kannada Film field from Madras to Bangalore. 'Bedara Kannappa' (1954) launched Rajkumar who later grew into a legend in the Kannada film industry and also won the Dada Saheb Phalke award in 1997. In the 1950's the trend of social films began and the notable films of that decade were 'Premadaputri,' 'Modala Thedhi,' 'School Master,' 'Kanyadana,' 'Adarshasati,' 'Bhakta Markandeya,' 'Ratnagiri Rahasya,' 'Nala Damayanti,' 'Bhookailasa,' 'Jagajyothi Basaveshwara,' 'Dashavatara,' 'Ranadheera Kantheerava' and 'Bhakta Kanakadasa.'

The year 1964 was significant in the history of Kannada films for the production of the first entirely colour movie 'Amarashilpi Jakanachari'. The same year witnessed the release of 'Naandi,' a new wave film made by N. Lakshminarayan. In the 1960's the man acknowledged by one and all as the greatest director in Kannada film history, Puttanna Kanagal, made memorable films, like 'Bellimoda' (1967), 'Gejje Pooje' (1968), 'Sharapanjara' and in the 70s movies like 'Sakshatkara,' 'Nagara Havu' etc. The first film based on Children's subject 'Makkala Rajya' was also released during this period.

In the 1970's film makers started adopting Kannada novels by famous authors to the screen and this phenomenon became immensely popular. The novels of eminent novelists like Aa Na Kru, Ta Raa Su, Krishnamurthy Puranik, Triveni, M.K. Indira, Poornachandra Tejasvi, S.L. Byrappa, Sai Sute and T.K. Rama Rao were made into movies. Poems of great poet like Bendre, Kuvempu, K.S. Narasimhaswamy, Gopalakrishna Adiga etc., were converted into film lyrics and they gained acclaim.

The decades of the 1970's is considered the age of the new-wave or experimental films through films like 'Samskara' (1970), 'Vamsa Vriksha' (1972), 'Abachurina Post Office' (1973),

---

\* Contributed by T.G. Ashwathanarayana

'Kadu' (1974), 'Hamsageethe' (1975), 'Chomana Dudi' (1975), 'Pallavi' (1976), 'Karavali' (1977), 'Kanneshwara Rama' (1977), 'Ghatashraddha' (1977), 'Chitegu Chinte' (1978), 'Ondu Orina Kathe,' 'Ondaanondu Kaaladalli,' 'Maleyamakklu,' 'Spandana' (all in 1978), 'Kadu Kudure' and 'Arivu' (1979), 'Yellinadalo Bandavaru' (1980), 'Grahana' and 'Moorudarigalu' (1981), 'Bara' (1982), and in recent years Avasthe, Pushpaka Vimana , Surya, Tabarana Kathe, Kaadina Benki, Tarka, Idhu Sadhya, Santha Shishunala Sharif, Bannada Gejje, Hagalu Vesha, Nagamandala, Deveeri etc. The commercially successful films of that period were 'Nagar Havu' and 'Bangarada Manushya' (1972), 'Yedakallu Goodada Mele' and 'Professor Huchchuraya' (1973), 'Upasane' and 'Bhootayyana Maga Ayyu,' (1974), 'Aparichita' and 'Parasangda Gendethimma' (1978), 'Mother,' 'Mithuna' (1980) and 'Gaali Maatu' (1981), Manasa Sarovara (1982), Phaniyamma (1983), Anubhava (1984), Bettada Hoovu, Masanada Hoovu (1985), Malaya Maruta (1986), Ondu Muttina Kathe (1987), Suprabhata (1988), Sankranti (1989), Udbhava, Shabari Male Swamy Ayyappa (1990), Ramachari (1991), Kraurya, Pallavi, Anuroopa, Khandavideko Mamsavideko, Sankalpa, Byankar Margaiyah, Geejagana Goodu, Savithri, Giddah, Ghata Shradda (President's Gold Medal), Akramana, Mane, Tayi Saheba (President's Gold Medal) (1997), Aparichita and Beladingala Bale. .

In the 1980s the Government of Karnataka granted 50% tax exemption to Kannada films completely made in Karnataka and it increased the subsidy amount to films. At present all Kannada Films produced and processed entirely in the State is eligible for Rs. 2.50 lakhs (black & white) and Rs. 3.50 lakhs (colour). L.V. Prasad established a Colour Processing Laboratory in Bangalore, Besides, Sanketh, a recording studio of the Nag Brothers and the Chamundeshwari studio were started. The availability of good infrastucture, encouragement received from the Government and the viewership had a cascading effect and there was a jump in the number of films made each year, in this decade. Films based on political and social themes, like 'Accident,' 'Antha,' 'Bara,' 'Chakravyuha,' 'Aasphota,' etc., were made in this decade. Films that were commercially successful in this decade were 'Antha,' 'Chakravyooha,' 'Hosabelaku,' 'Haalu Jenu,' 'Mududida Taavare Aralithu,' 'Bandhana,' 'Benkiya Bale,' 'Anubhava,' 'Anand,' 'Rathasaptami,' 'Neebareda Kaadambari,' 'Premaloka,' 'Pushpaka Vimana,' 'Ranadheera,' 'Suprabhata,' 'Sangliyana,' 'Nanjundi Kalyana,' 'Avale Nanna Hendathi,' 'Hendthige Helabedi,' 'Indrajit' 'Dada,' 'Deva,' 'Anjadagandu,' 'Hridaya Haadithu,' 'Gagana,' 'CBI Shankar', 'Gajapathi Garvabhanga,' 'Ramachari,' 'Chaitrada Premanjali,' 'Bhanda Nanna Ganda,' 'Jeevan Chaitra' and 'Aakasmika'.

Even though the background instrumental music was in vogue in silent films, songs were sung in the first talkie film in 1934. It is said that the advent of modern orchestra in films was due to the efforts of P. Kalinga Rao in 1941. Playback Singing became popular later. Music directors like P. Shamanna, R. Sudarshan, G.K. Venkatesh, T.G. Lingappa, Vijaya Bhaskar, Rajan Nagendra and Hamasalekha have become popular. B.V. Karnath, Prema Karanth, Girish Kasaravalli, M.S. Satyu, Siddalingaiyah , Girish Karnad, Suvarna, G.V. Iyer, Nagabharana and Baraguru Ramachandrappa are film directors who have won national awards. A promising young women film maker is Kavitha Lankesh (Deveeri Film).

Many Kannada films have won a large number of State and National awards over this period of time. Karnataka Film Chamber of Commerce was started in Bangalore in 1944. Some amateur film societies are producing film in 17 mm or 8 mm cameras. These are 'Assema,' 'Srishtri,' 'Swajan' and 'Suchitra' Societies.

The first regional office of the National film Archives of India, Pune, was started in Bangalore in 1982 at Chowdiah Memorial Hall. It is engaged in collecting and preserving old and memorable films made in all the regional language of South India. The popular film studios of Karnataka are Premier Studio at Mysore and Chamundeshwari, Sree Kantheerava and Abhimaan at Bangalore. Many colour laboratories, processing units and recording units are also functioning in Bangalore, Which is the film city of Karnataka.

Apart from veteran "Karnataka Ratna" Dr. Rajkumar who has won prestigious Dada Phalke Award, the Kannada screen has produced a host of talented artistes like Ashwath, Balakrishna, Narasimha Raju, Kalyan Kumar, Udaya Kumar, Gangadhar, Vishnuvardhan, Ambarish, Prabhakar, Sridhar, Ravichandran, Kashinath, Shankar Nag, Ananth Nag, Rajesh, Sudharshan, Srinath, C.R. Simha, Dwarkish, Vajramuni, Ramesh Arvind, Ramgopal etc., and actresses like M.V. Rajamma, Leelavathi, B.V, Radha, Jayamma, Pandari Bai, B. Saroja Devi, Jayanthi, Kalpana, Aarti, Bharati, Manjula, Harini, Jayamala, Jayalakshmi, Malashri, Sudha Rani, Vaishali Kasaravalli, Tara etc.

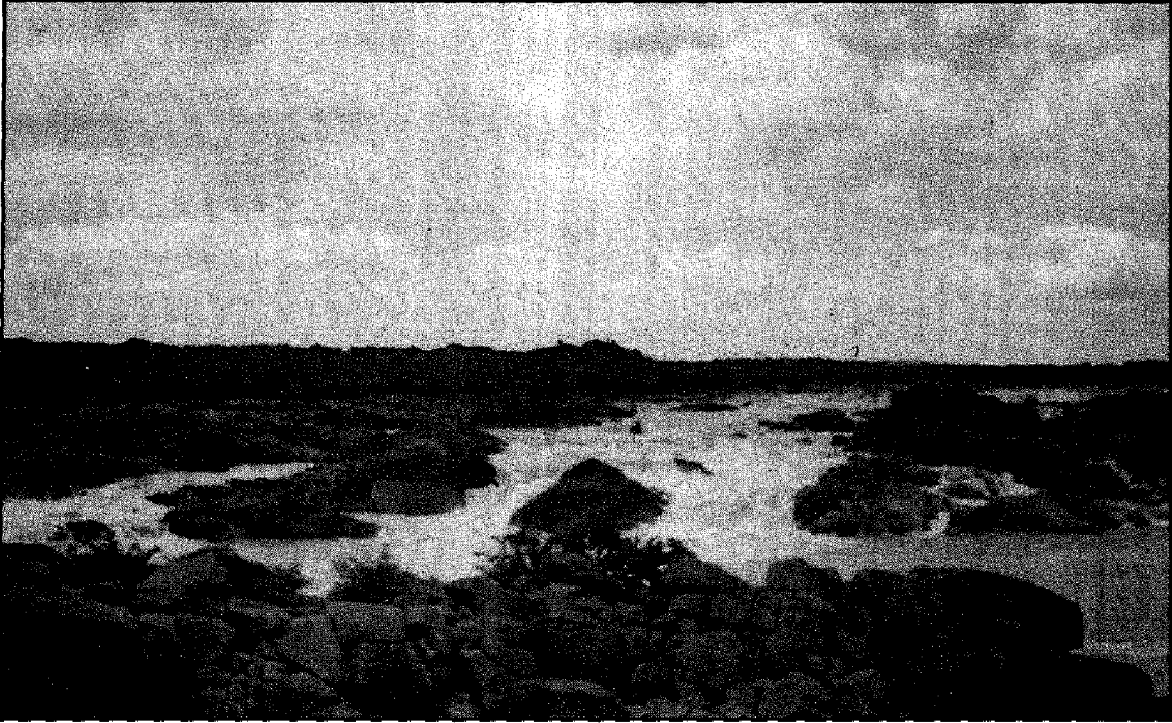
G.V. Iyer is the first to make the Film in Sanskrit "Adi Shankaracharya" in 1984, which won for him the nations highest award. He further made "Madhwacharya" in Kannada in 1986 and "Ramanujacharya" in 1988 in Tamil trying to bring out the teachings of these saint, philosophers, through the medium of Cinema. Iyer again won the national award for his film "Bhagavadgeetha" in 1993.

**The following films have won National Award under different Categories**

No.	Name of the Film	Year
1.	Bedara Kannappa	1955
2.	Samskara	1970
3.	Chomana Dudi	1976
4.	Ghatashraddha	1978
5.	Dangeyedda Makkalu	1980
6.	Phaniyamma	1983
7.	Adi Shankaracharya	1984
8.	Tabarana Kathe	1987
9.	Pushpaka Vimana	1988
10.	Jamboo Savari	1990
11.	Tayi Saheba	1997
12.	Deveeri	1999
13.	Kanoor Heggadithi	2000







*River Krishna, Chaya Bhagavathi, Gulbarga dt.*



*Sunflower field, Gundlupet, Chamarajanagar dt.*



*Ranganatittu Birds Sanctuary, Srirangapatna tq.*



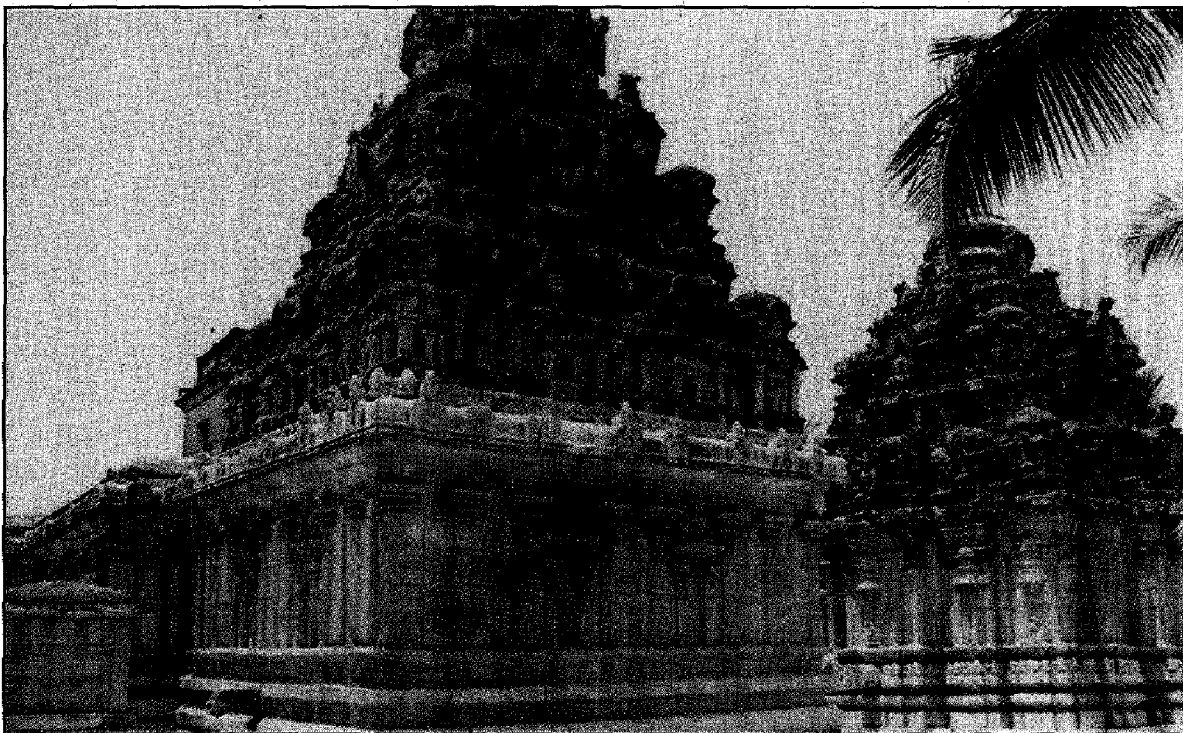
*Durga Temple, Aihole, Hungund tq.*



*Temple at Pattadakal, Badami tq.*



*Mahalingeshwara Temple, Itagi, Yelburga tq.*



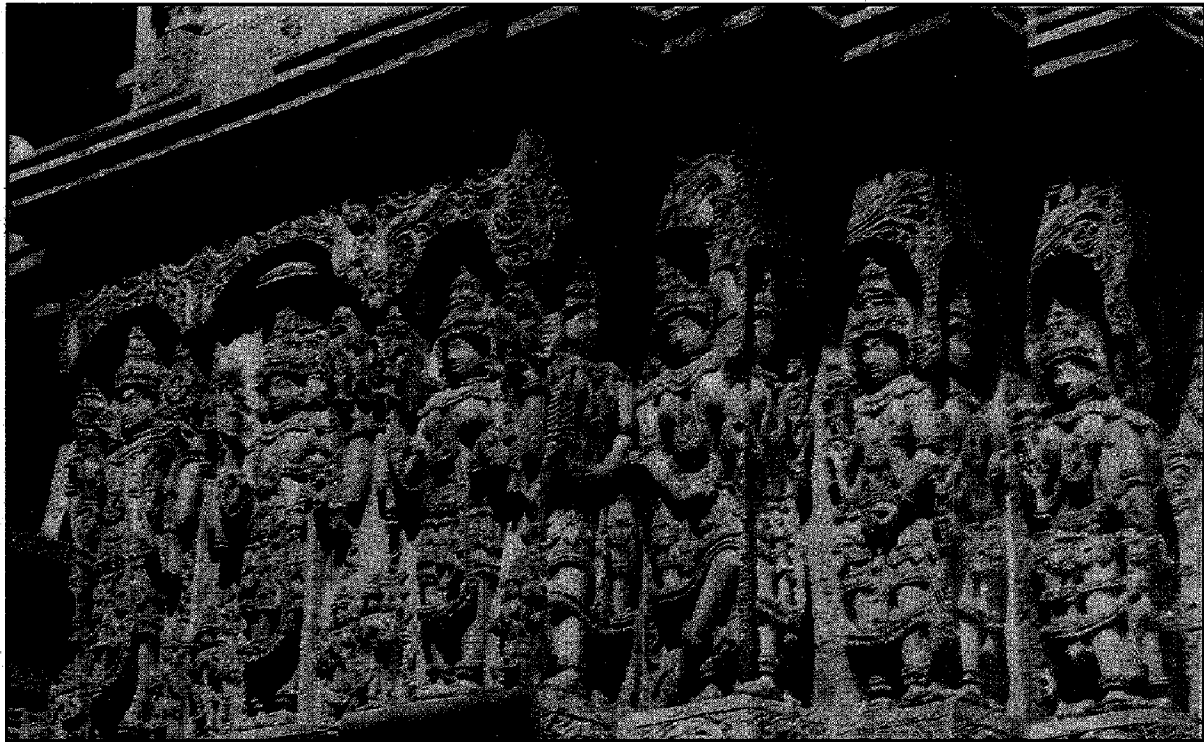
*Rameshwara Temple, Avani, Mulabagal tq.*



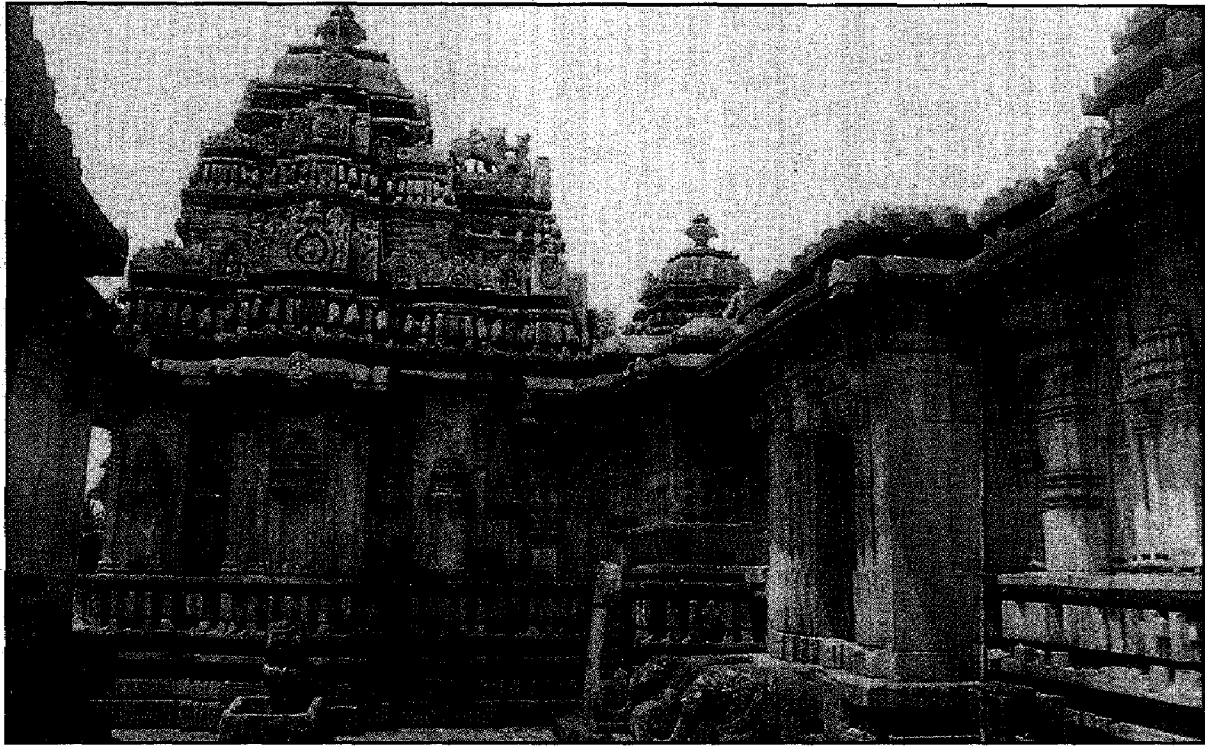
*God Someshwara, Lakshmeshwar, Shirahatti tq.*



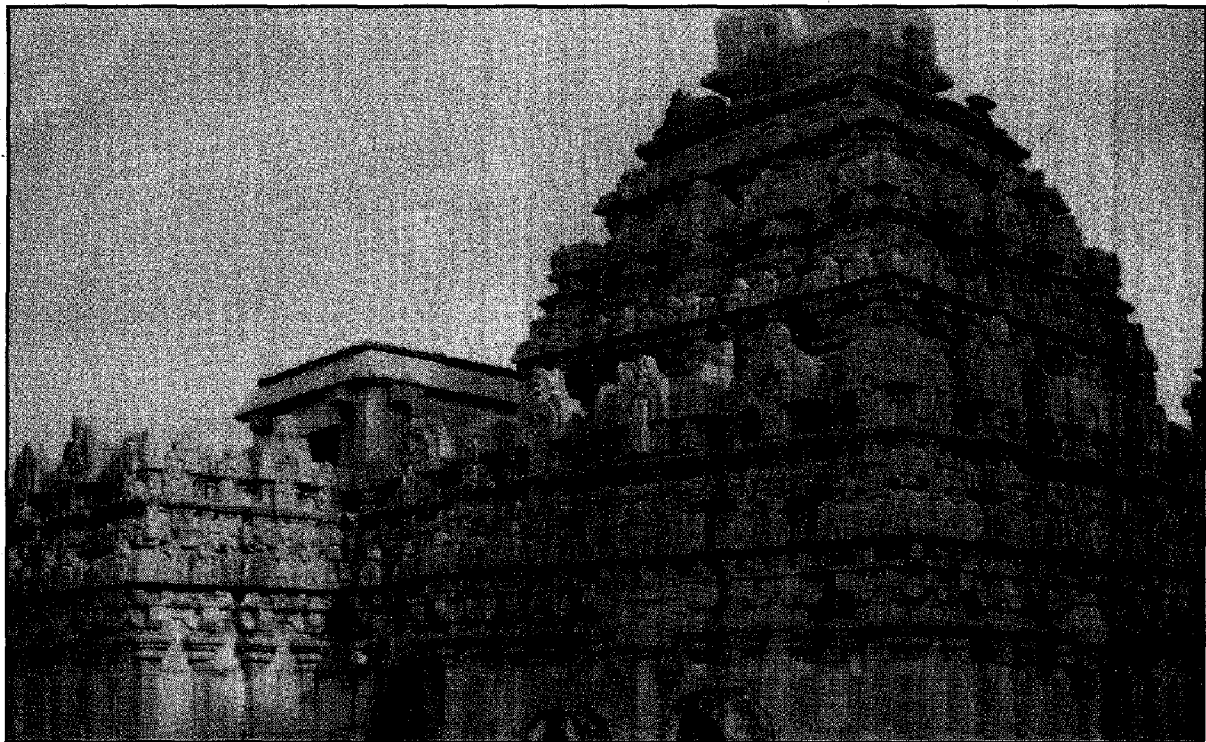
*Gajasurasamhara, Halebidu, Belur tq.*



*Intricate Carvings at Halebidu, Belur tq.*



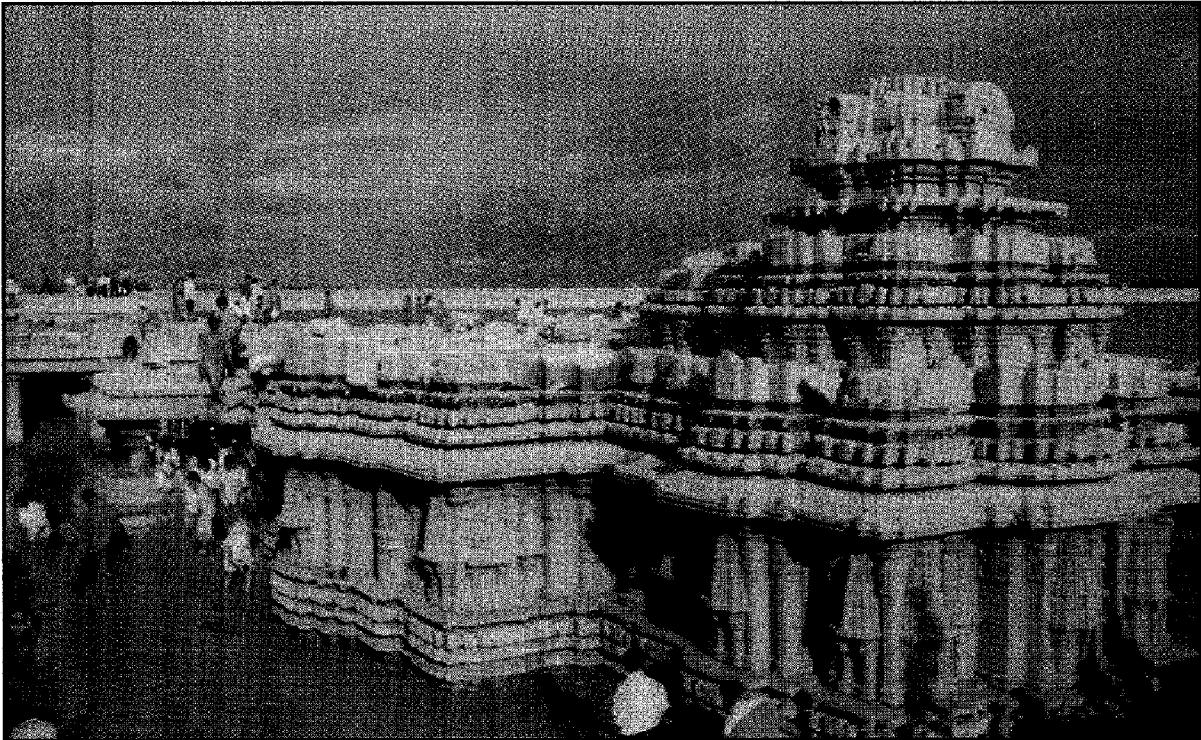
*Lakshmi Temple, Doddagaddavalli, Hassan tq.*



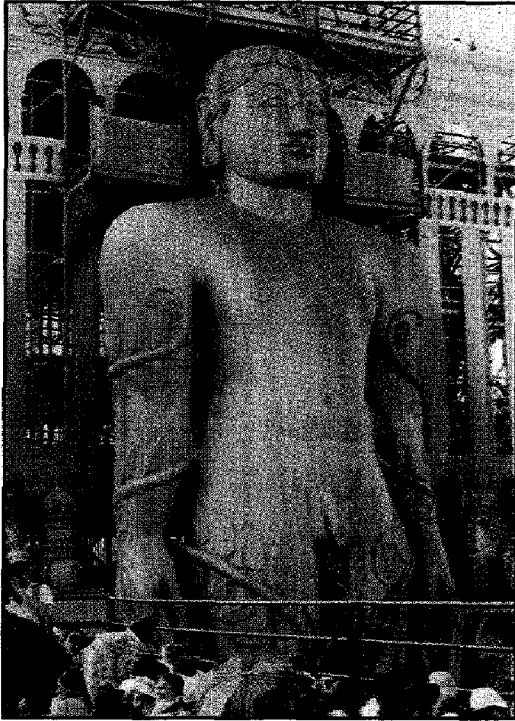
*Bhoganandishwara, Nandigrama, Chikballapur tq.*



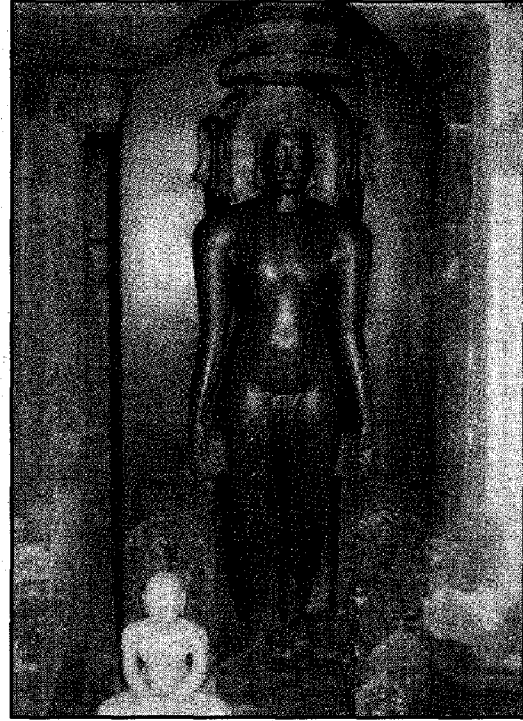
*Keertinarayana Temple, Talakad, T. Narasipur tq.*



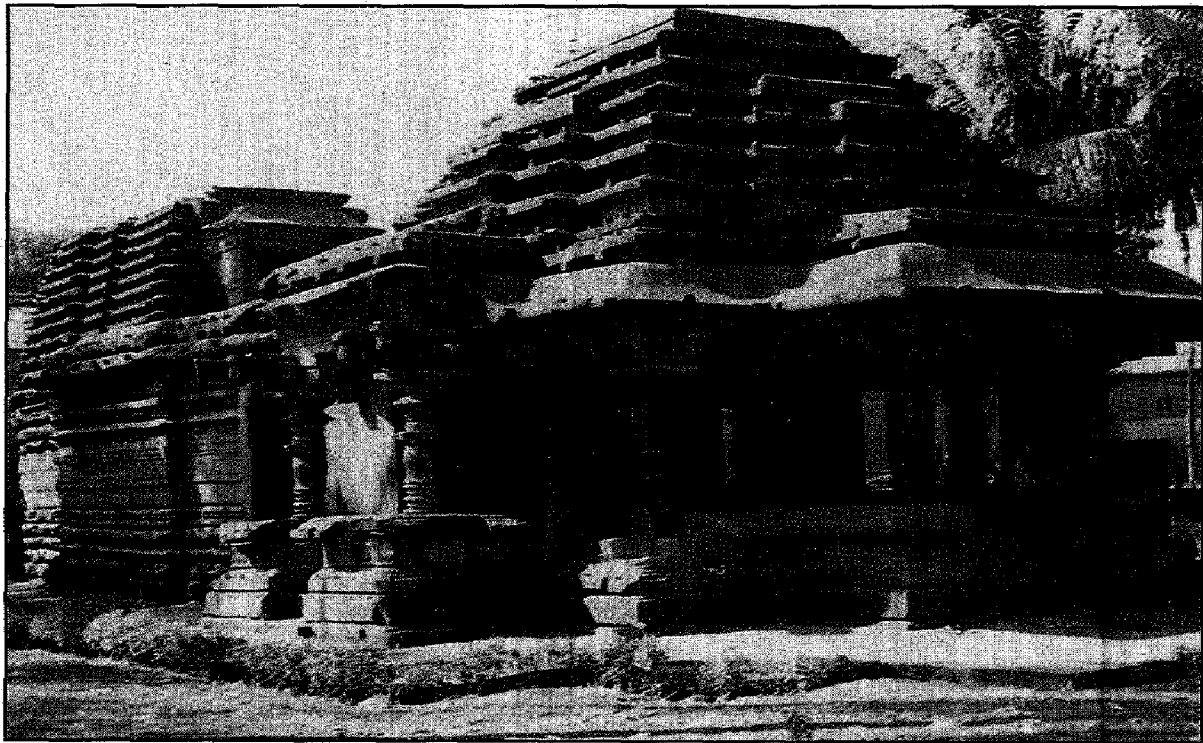
*Gopalakrishna Temple (Submerged), Krishnaraja Sagar.*



*Gommateshwara, Shravanabelagola.*

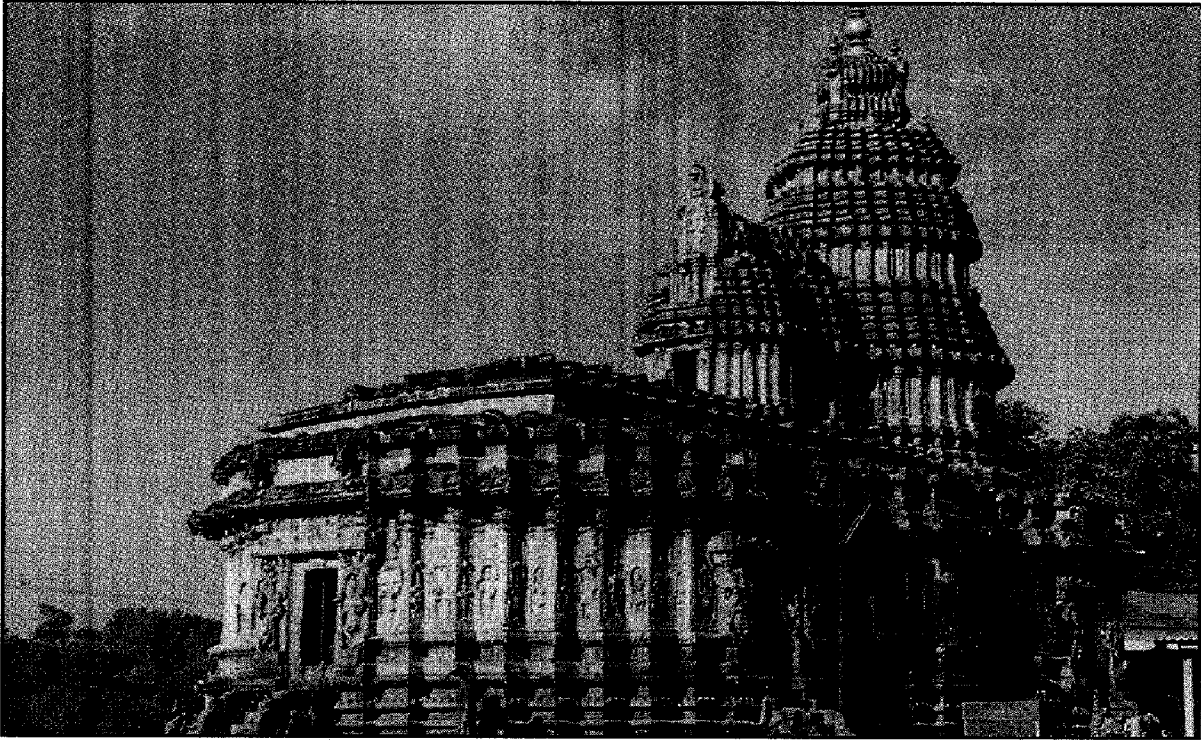


*Jaina Image, Balambeedu  
Hirekerur tq.*

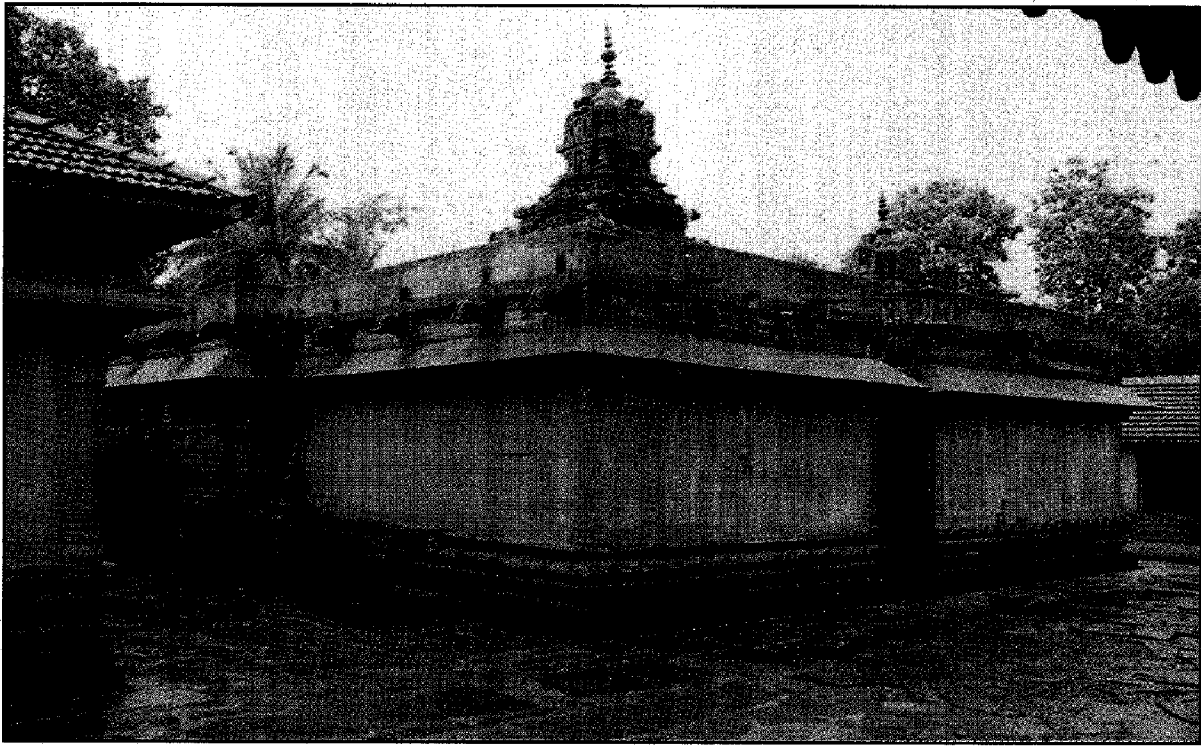


*Kamala Basadi, Belgaum.*

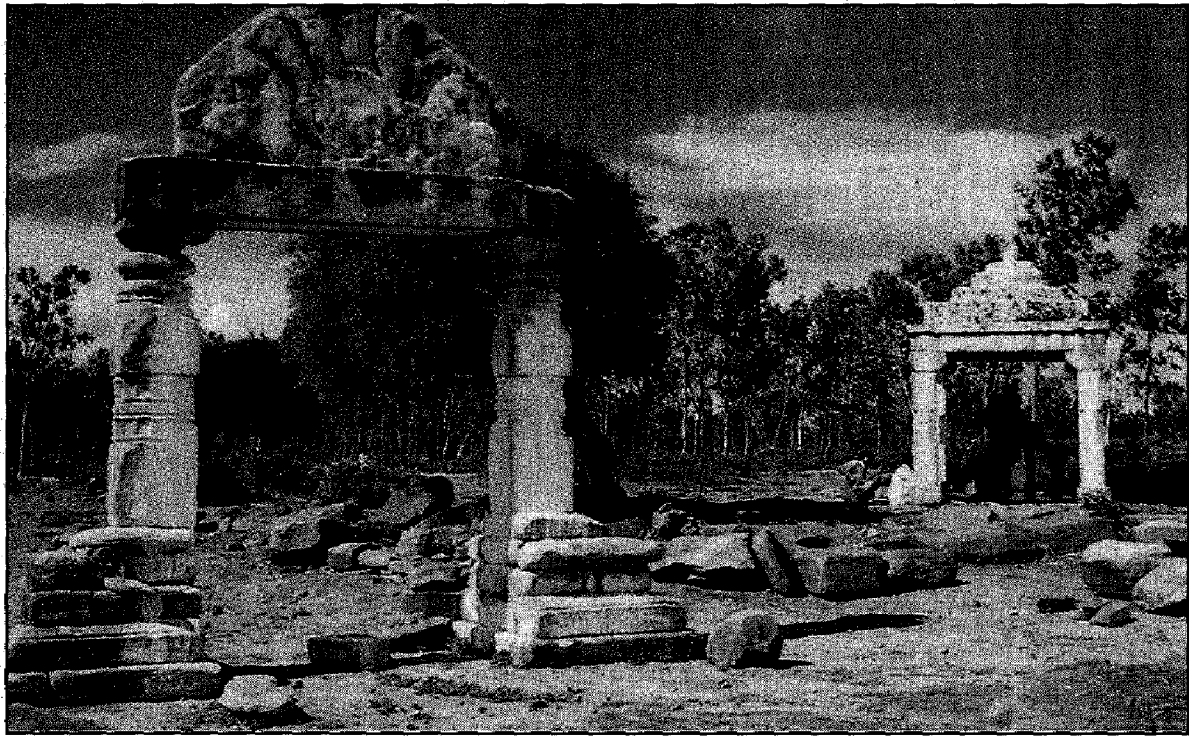




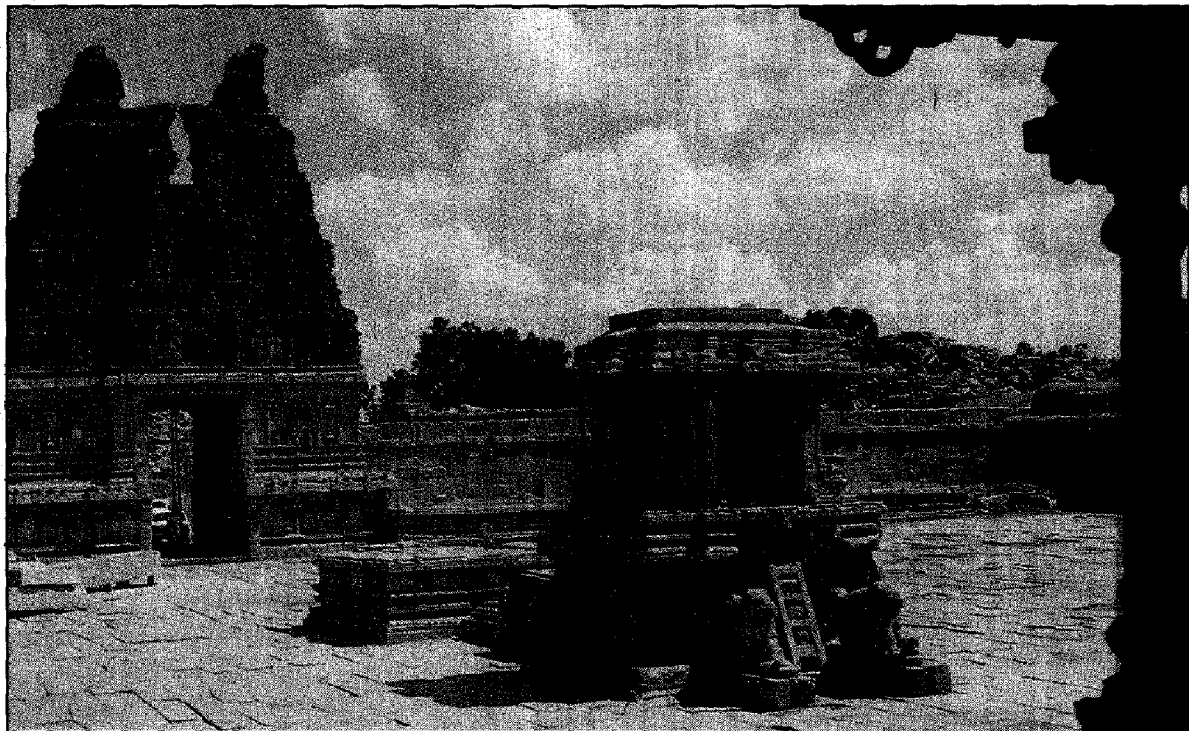
*Vidyashankara Temple, Sringeri, Chikmagalur dt.*



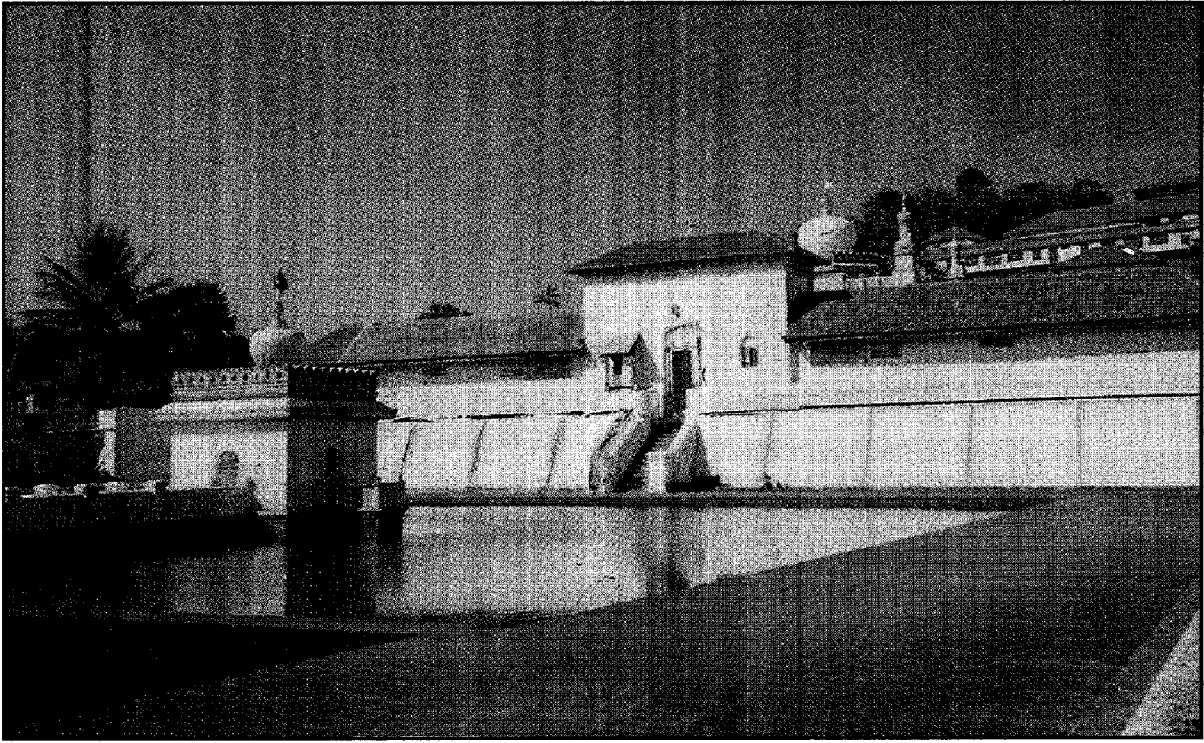
*Rameshwara Temple, Keladi, Sagar tq.*



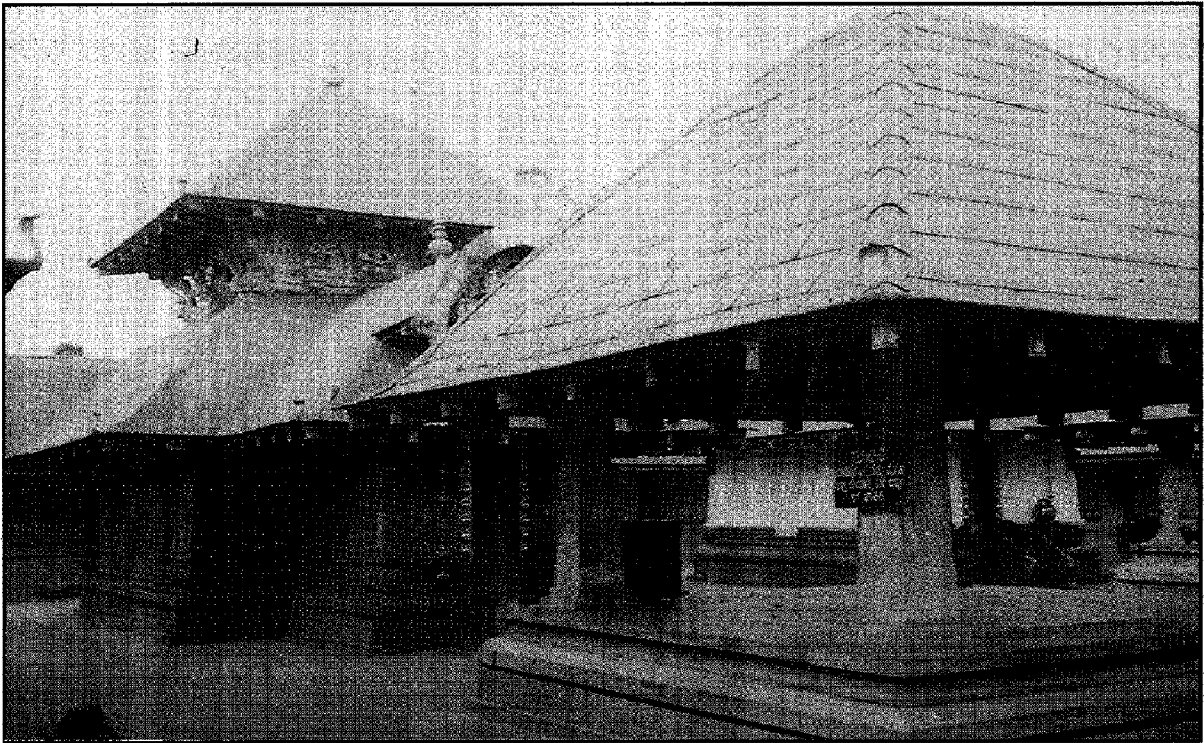
*Gateway, Chandalingeshwara Temple, Kushtagi tq.*



*Stone Chariot, Vittala Temple Complex, Hampi.*



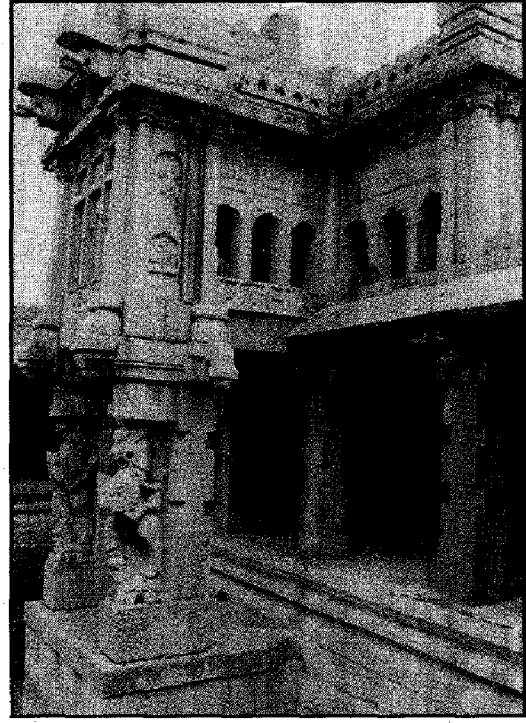
*Omkareshwara Temple, Madikeri, Kodagu dt.*



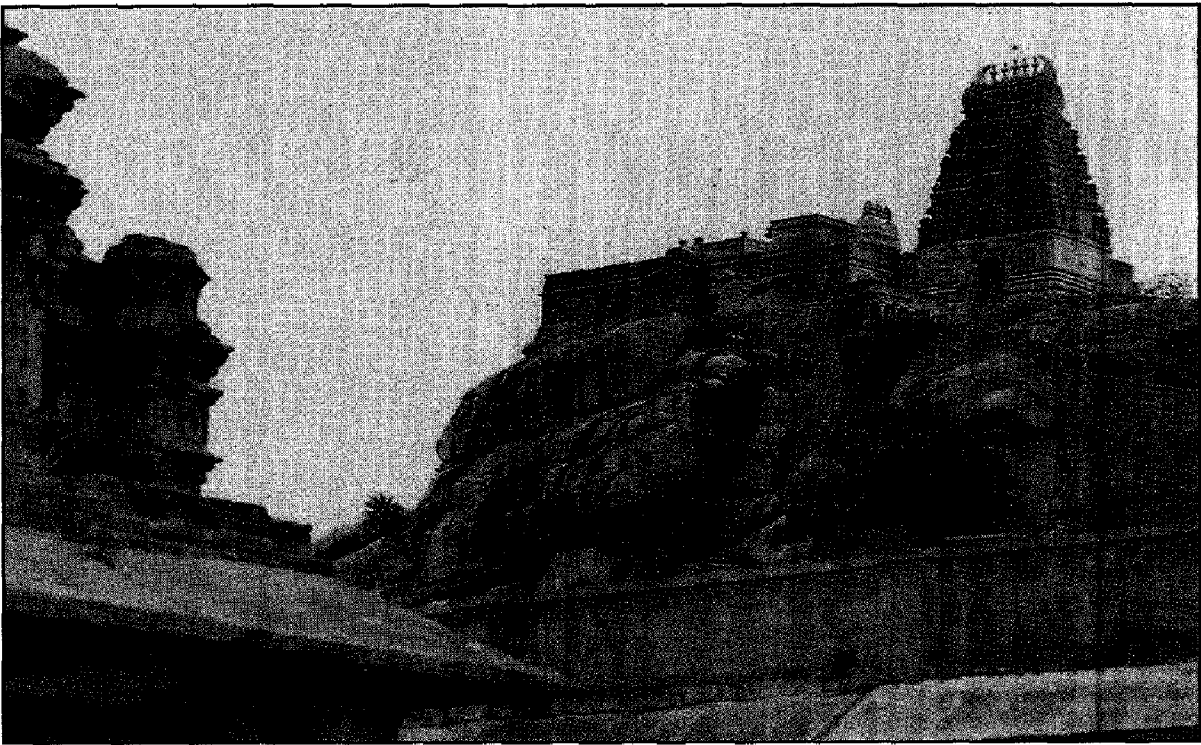
*Bhagandeshwara Temple, Bhagamandala, Kodagu dt.*



*Sati stone, Hirekerur, Haveri dt.*



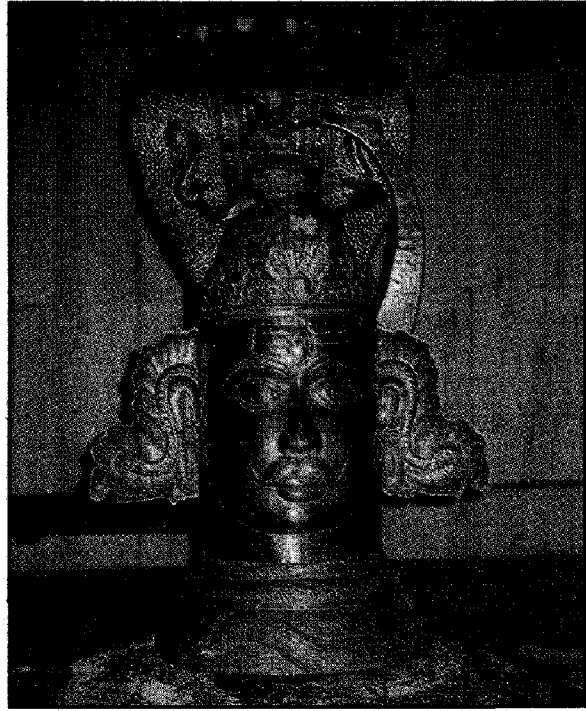
*Underground Water Pool, Kanakagiri  
Koppal dt.*



*Narasimha Temple, Melkote, Pandavapura tq.*



*Jaina Image. Gulbarga Museum.*



*Metal Icon, Hombala, Gadag tq.*



*Veerabhadra, Belavaniki, Ron tq.*



*Bhairava, Halavu Taralagatti, Shiggaon tq.*



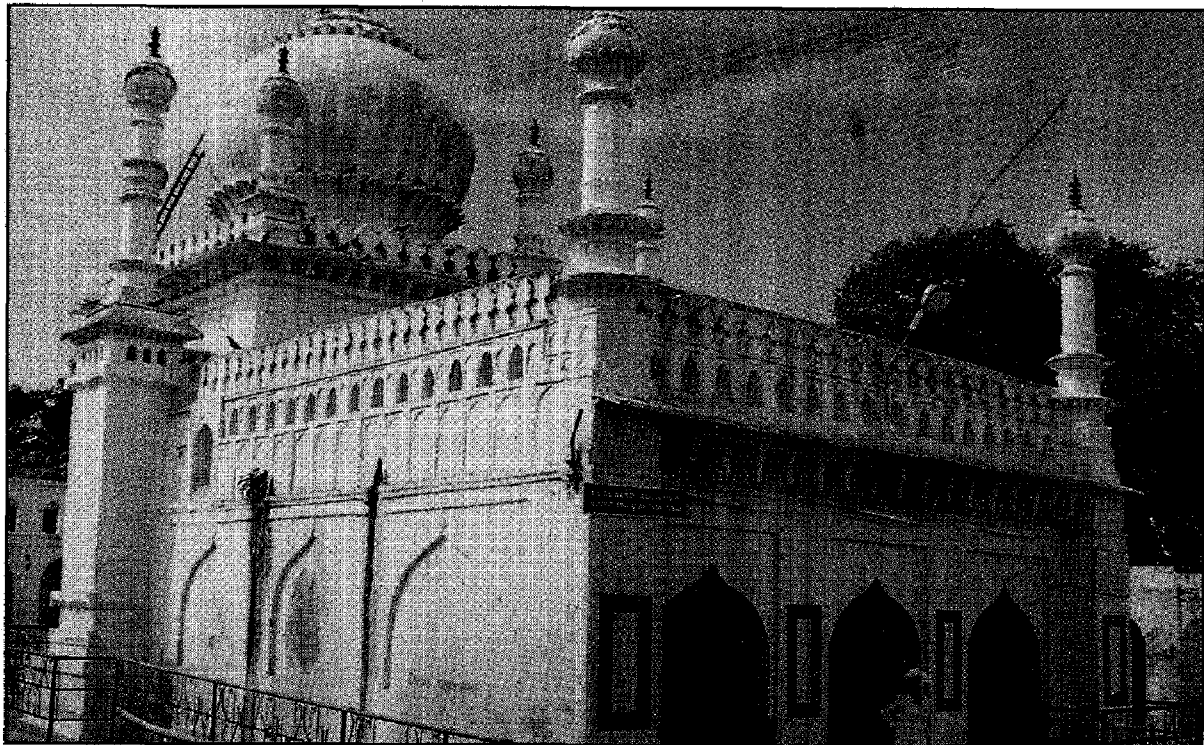
*Fort, Chitradurga.*



*Fort, Bidar.*



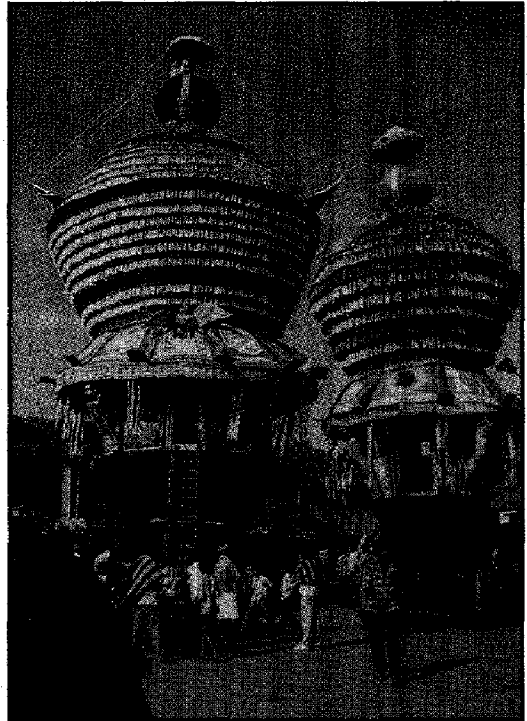
*Sharanabasaveshwara Temple, Gulbarga.*



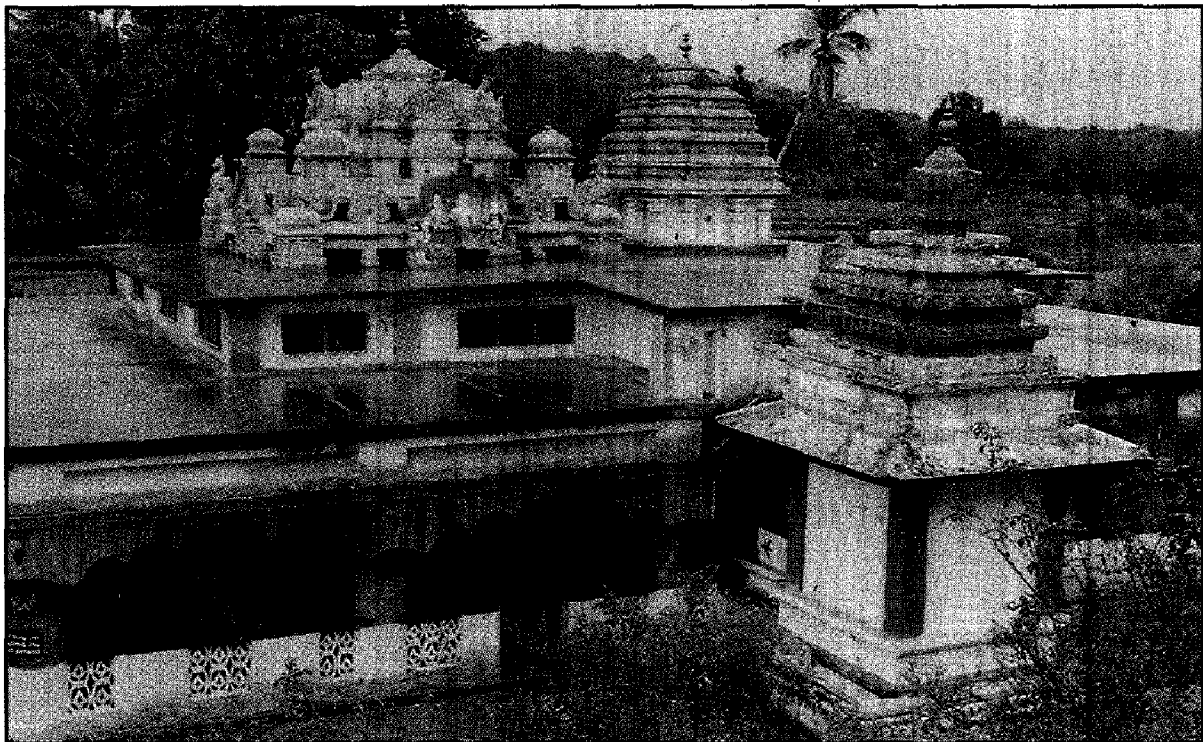
*Mouneshwara Temple, Thinthini, Surapur tq.*



*Soumyakeshava Temple,  
Nagamangala, Mandya dt.*

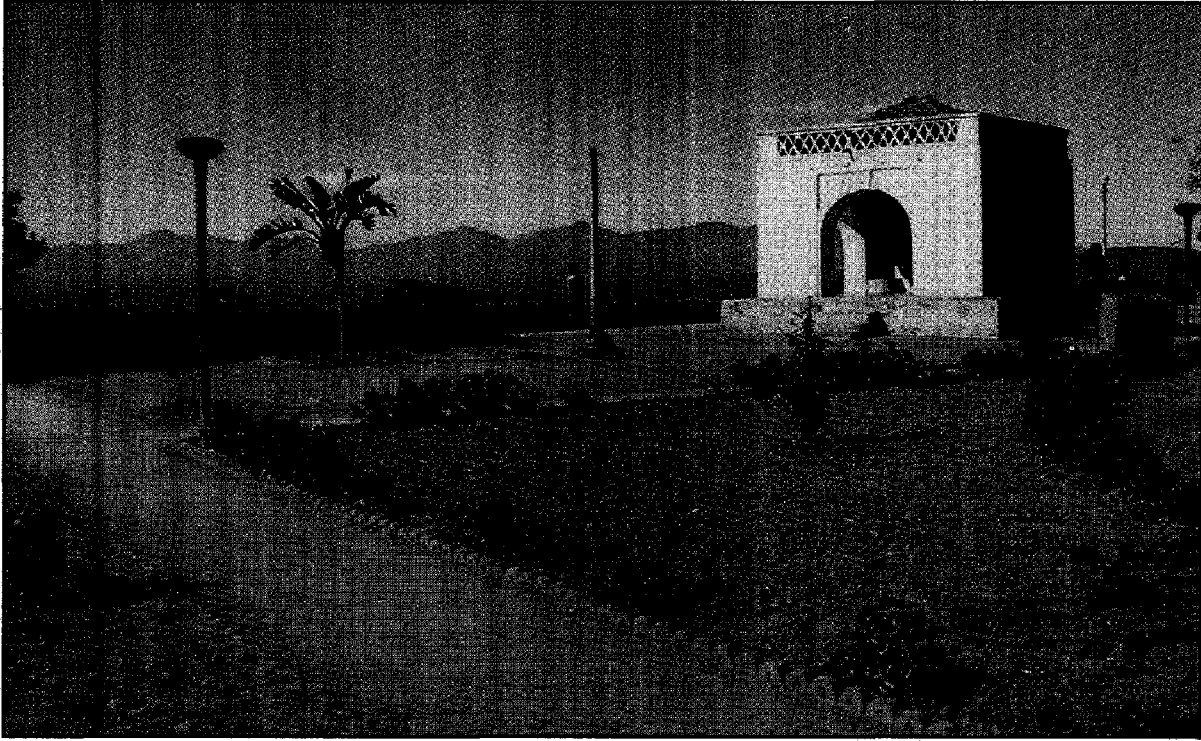


*Temple Cart, Udupi.*



*Vadiraja Matha, Sonda, Sirsi tq.*

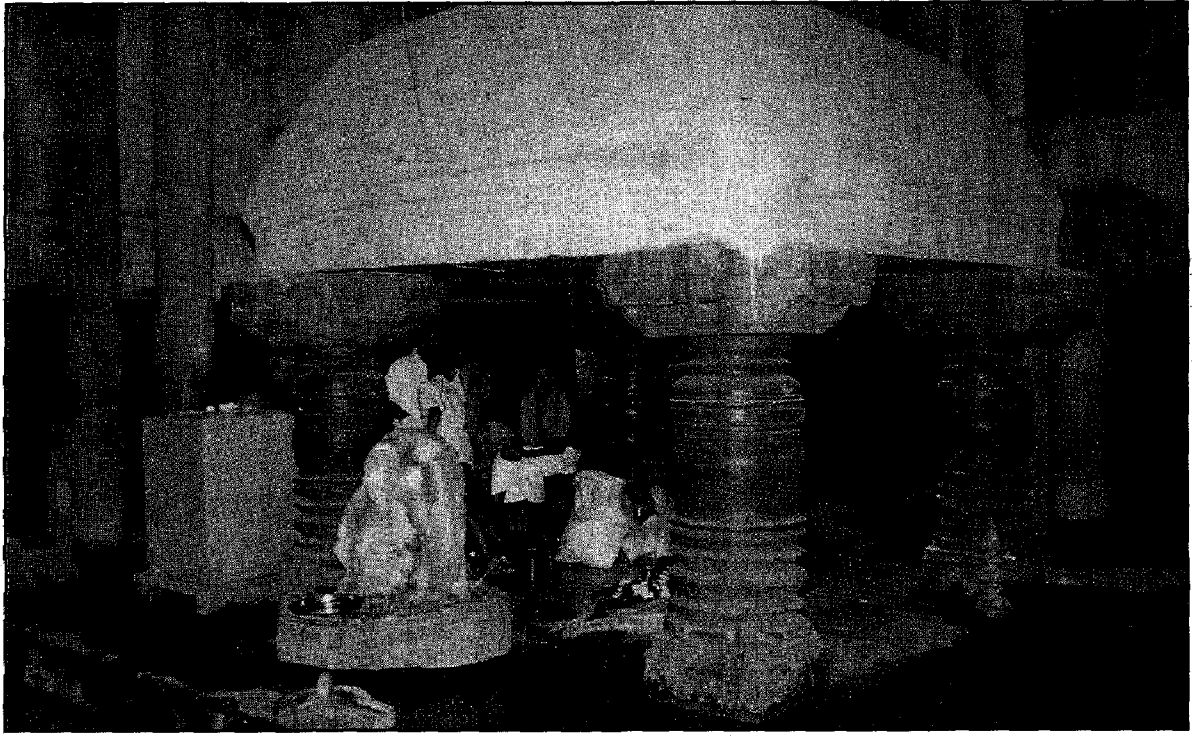




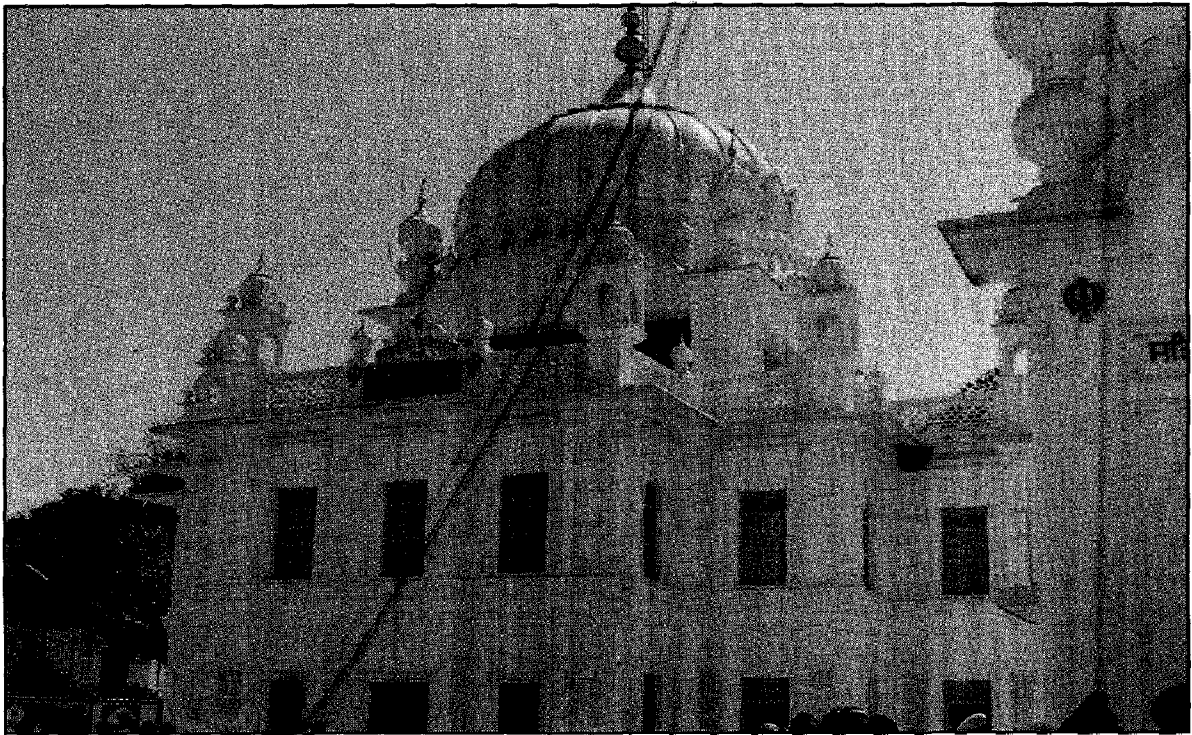
*Raja's Seat, Madikeri, Kodagu dt.*



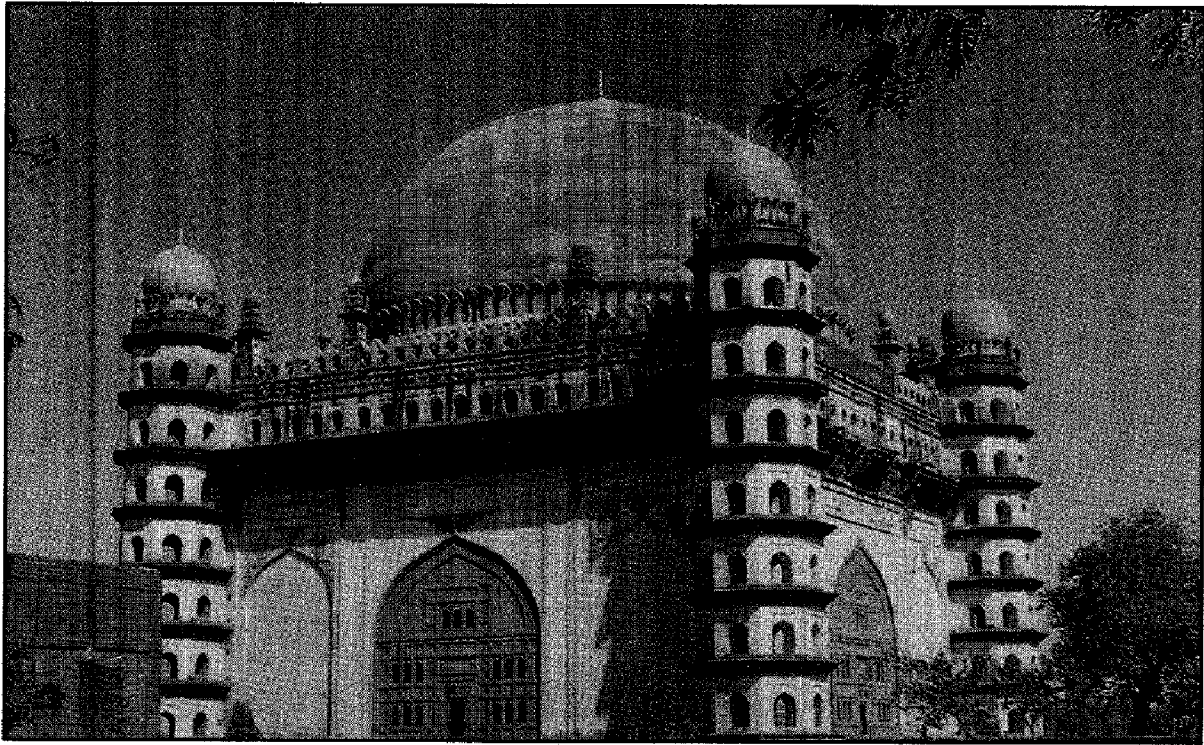
*Fort, Madikeri.*



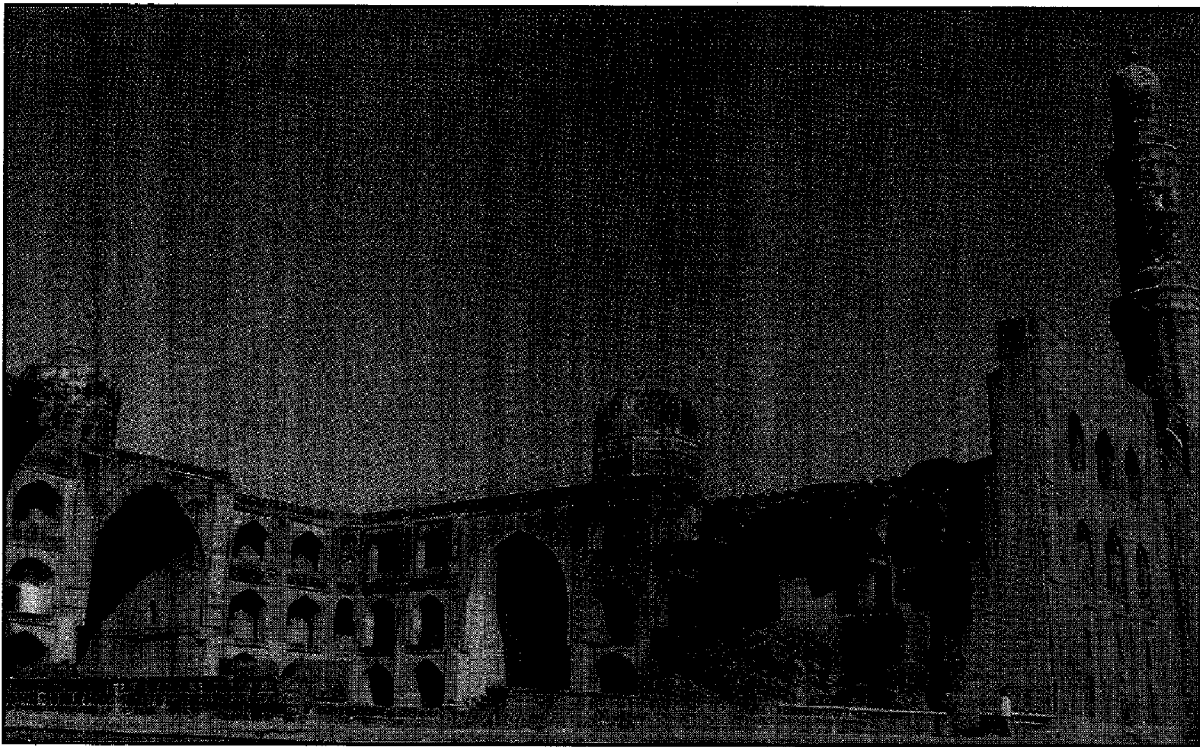
*Aikya Mantapa, Kudalasangama, Hungund tq.*



*Gurunanak Jhara, Bidar.*



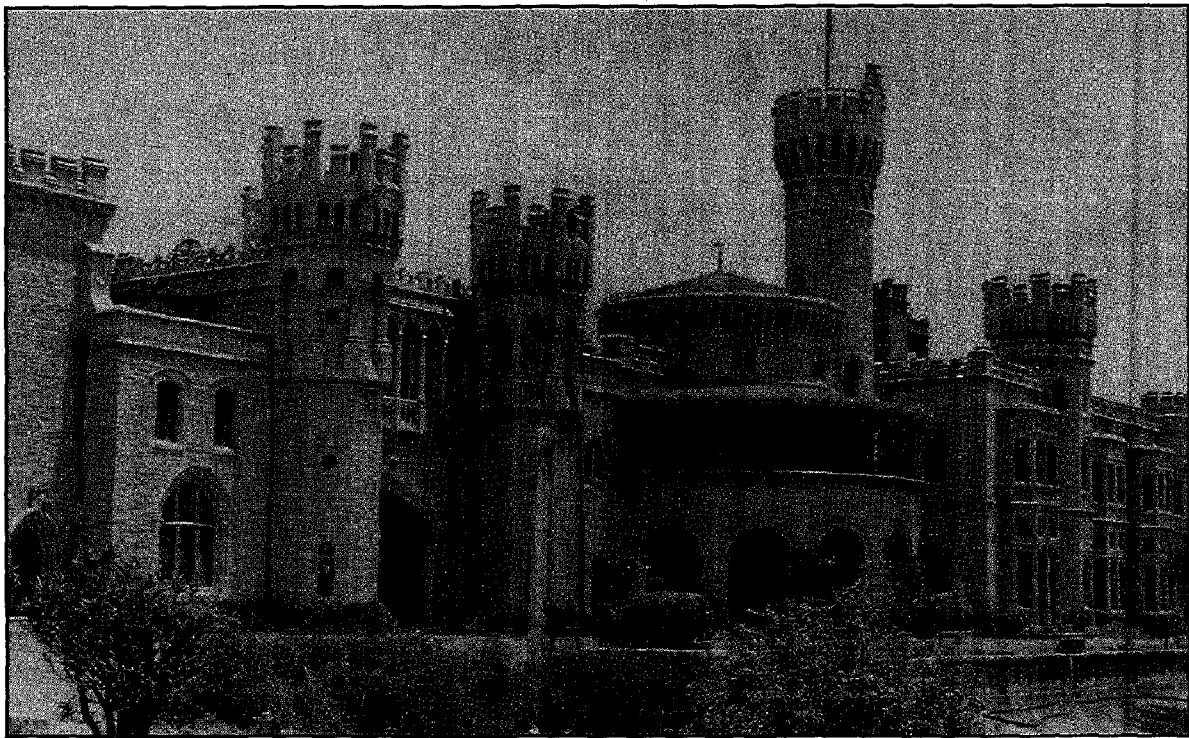
*Golgumbaz, Bijapur.*



*Mohammed Gawan's Madarasa, Bidar.*



*Tipu's Palace, Daryadaulat, Srirangapatna.*



*Palace, Bangalore.*



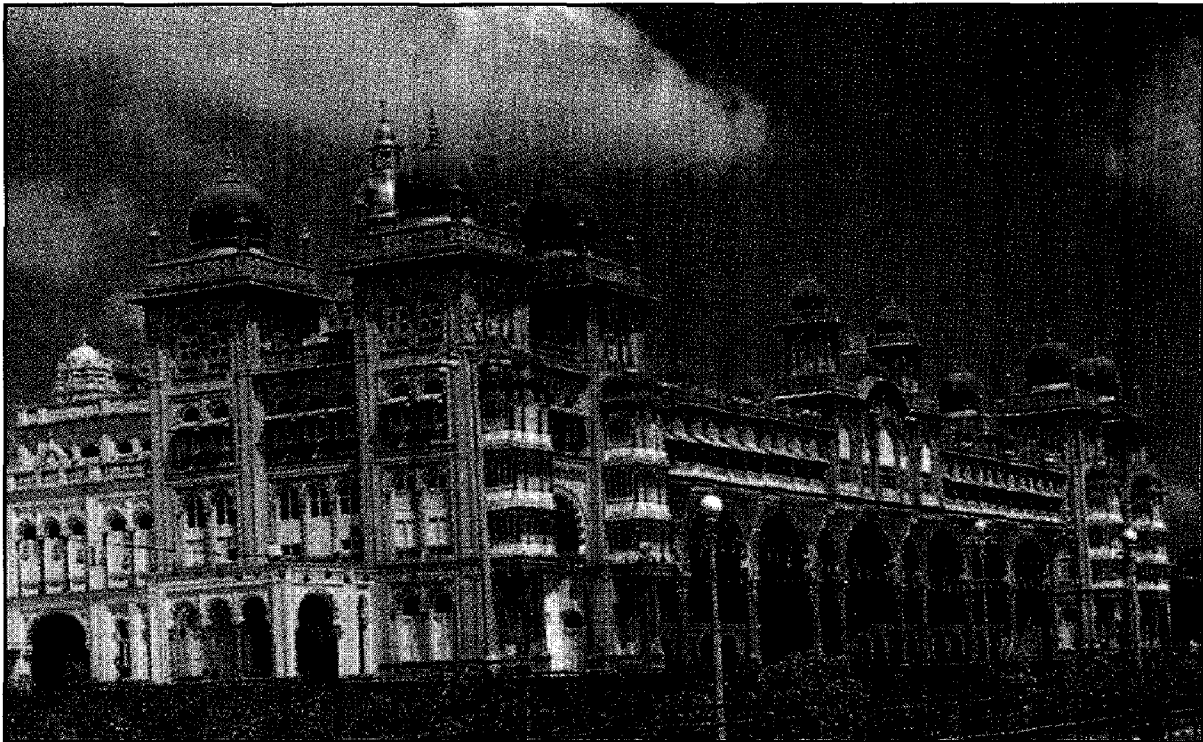
*Francis Xavier's Cathedral, Bangalore.*



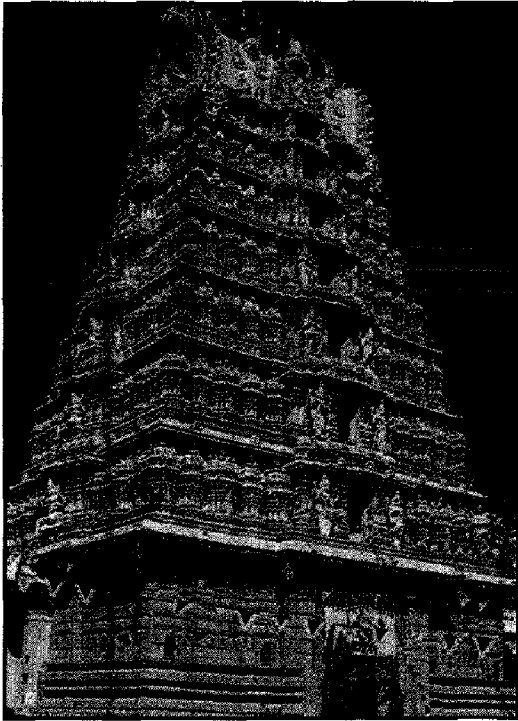
*Illuminated Palace, Mysore.*



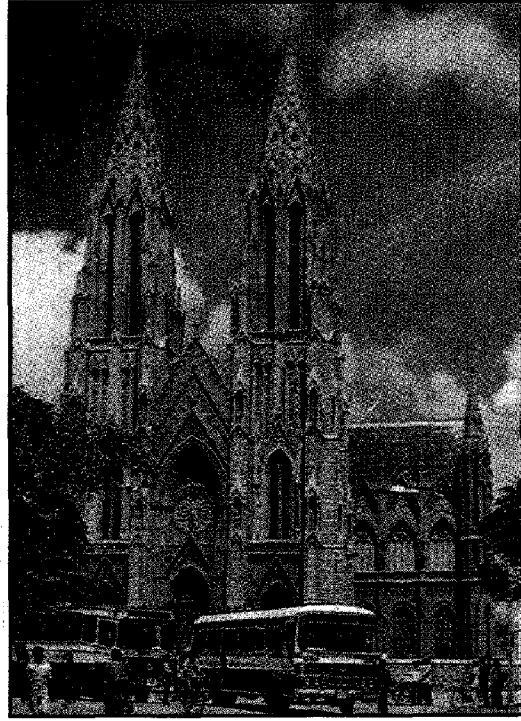
*Lalithmahal Palace, Mysore.*



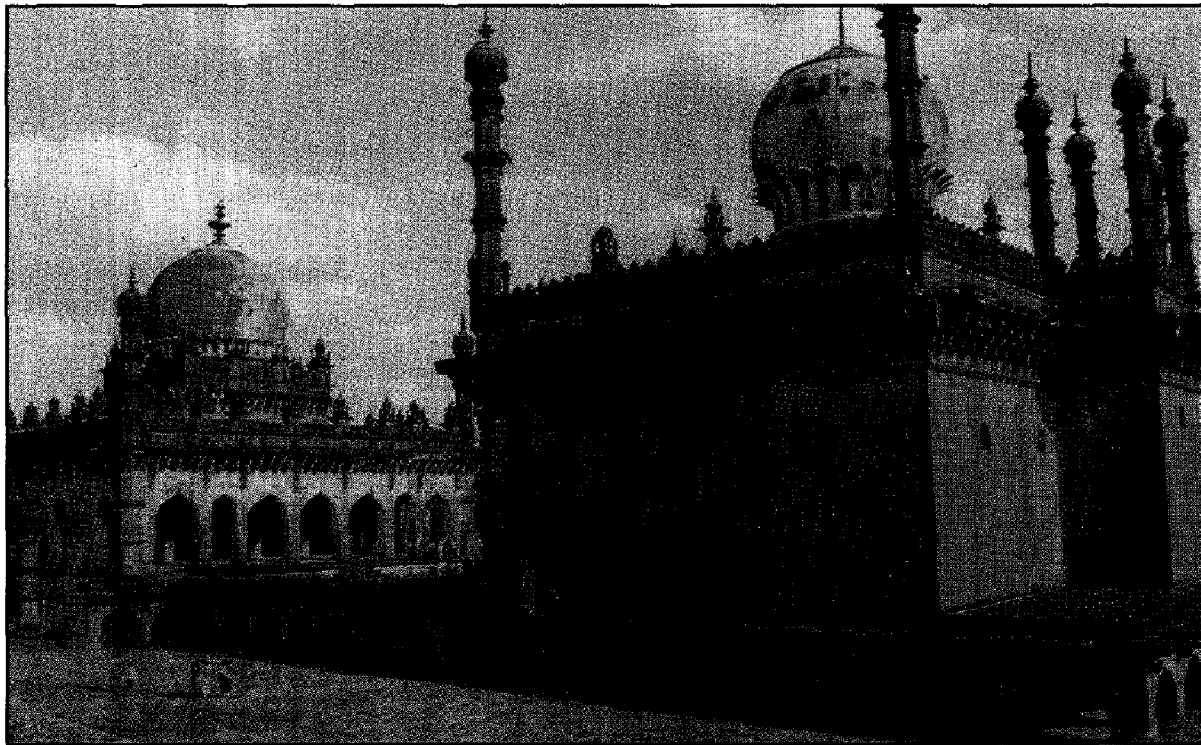
*Maharaja's Palace, Mysore.*



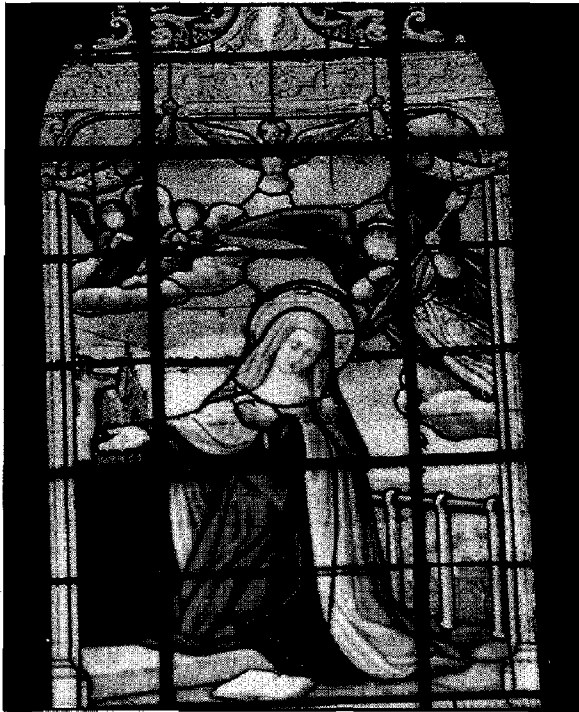
*Chamundeshwari Temple, Mysore.*



*St. Philomena's Church, Mysore.*



*Ibrahim Roza, Bijapur.*



*Glass Painting, Kulashekara Church, Mangalore.*



*Kaavi Art, Kumta, Uttara Kannada dt.*

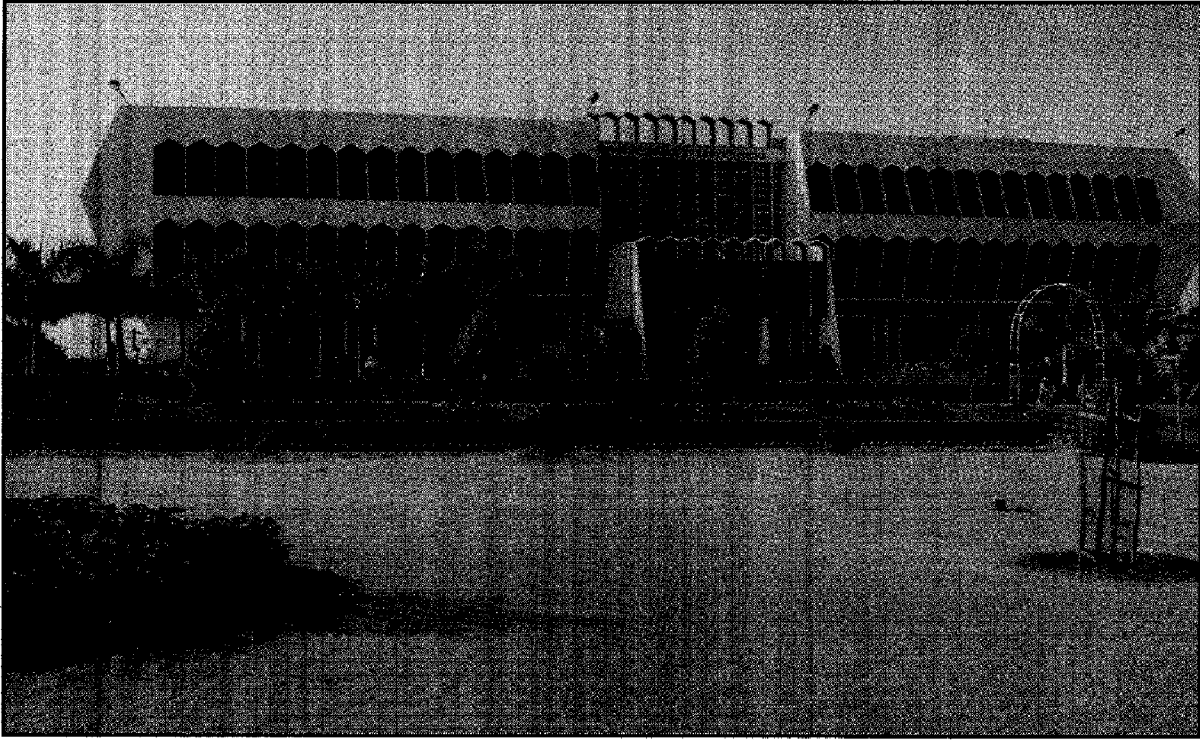


*Mural, Nippani, Belgaum dt.*

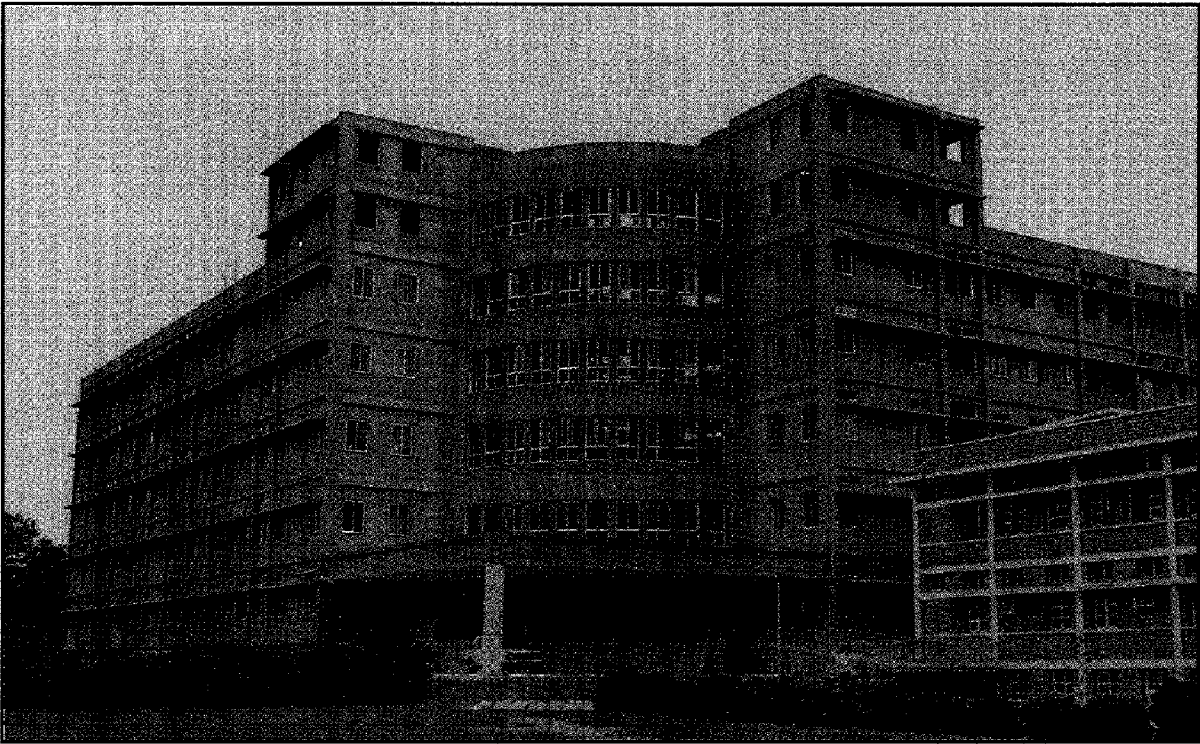


*Mural, Raichur.*

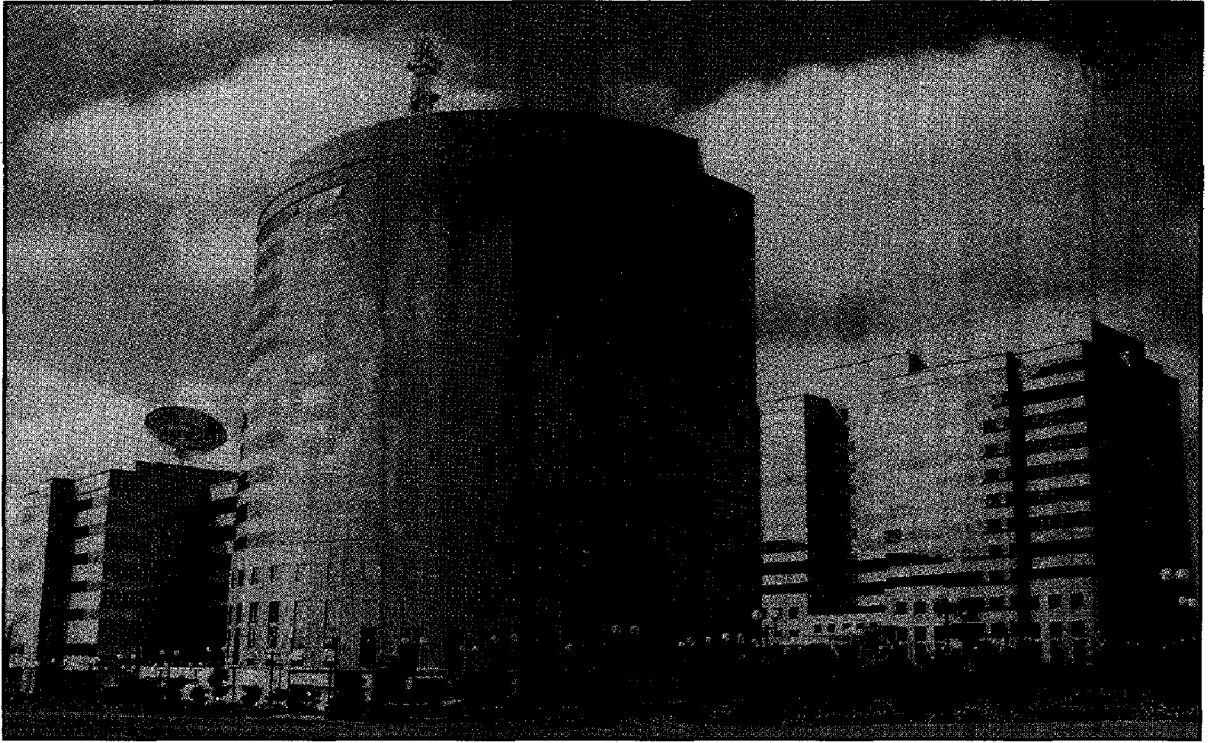




*Gulbarga University, Gulbarga.*



*Basaveshwara Hospital, Gulbarga.*



*International Technological Park, Bangalore.*



*Glass House, Lalbagh, Bangalore.*