

Table 4.21: PUC Results for Five Years (in percent) 2007-08 to 2011-12

Taluk/Years	2007-08	2008-09	2009-10	2010-11	2011-12
Badami	23.11	25.85	30.41	43.43	48.76
Bagalkot	28.24	31.27	34.55	37.75	53.17
Bilagi	44.21	38.99	43.06	51.33	70.78
Hunagund	32.66	27.75	34.15	39.39	52.98
Jamakhandi	42.44	43.37	48.11	49.16	69.56
Mudhol	29.94	38.35	38.86	48.84	58.78
District	33.03	34.05	38.14	43.81	58.27
State	41.41	42.51	47.85	48.96	57.05

Source: Office of the Deputy Director, Department of Pre-university and Vocational Education, Bagalkot.

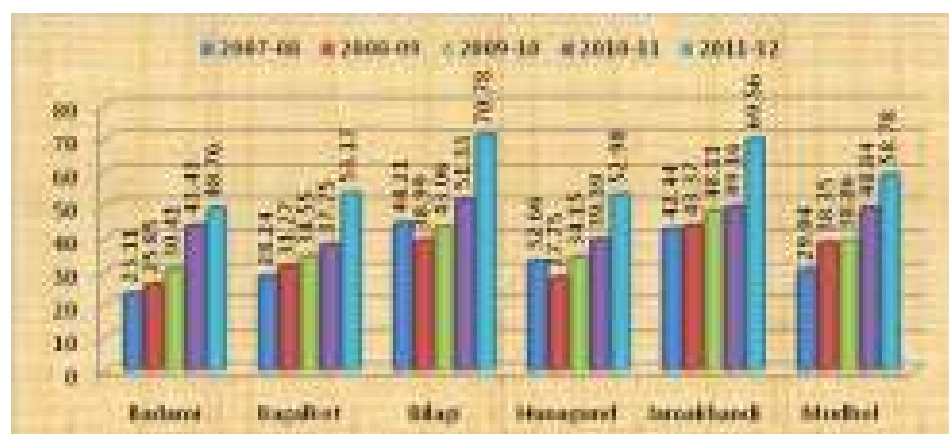
The pre-university education data is provided in table 4.20. There are in total 106 PU Colleges in the district, of them Jamakhandi taluk has more number of colleges. The strength of students varies from one taluk to another. Bagalkot district has enrolled 34013 students for PUC. Bagalkot and Jamakhandi taluks have relatively higher enrolment. The numbers of boys outnumber girls indicating gender inequality.

The analysis of table 4.21 clearly shows that only half of the total enrolled students have passed in

the PUC. However the PUC results have made promising improvements from 33 percent in 2007-08 to 58 percent in 2011-12. This figure is slightly higher than the state result (57 percent). The PUC results across taluks vary remarkably. Bilagi and Jamakhandi taluks have recorded the best result in the district. Mudhol taluk's record is slightly higher than the district. Bagalkot, Badami and Hunagund taluks have recorded below the district level in PUC results. This calls for serious attention for providing necessary support to the backward taluks to improve the quality of education.



Fig: 4.10: PUC Results (in percent) from 2007-08 to 2011-12



Professional education in the district is maintained by private institutions. This questions the issue of access and equity. Gender gap is significantly greater in professional education, where monetary investment is needed.

4.11.2 Higher Education

Table 4.22 depicts picture of the higher education in Bagalkot district. There are 49 degree colleges in the district, among them 12 are Government and 37 are private colleges. There are totally 16190 students availing education. Among them 6357 are girls and the remaining are boys. The proportion of women pursuing degree education is far behind the boys. Hunagund taluk has more number of colleges compared to other taluks while Bilagi taluk has only 3 colleges.

4.11.3 Professional Education

The Directorate of Technical Education in the state had ensured a planned development of technical education. The observed data denotes that professional education

is imparted mainly by private sector in the district.

There is only one medical college at Bagalkot with 645 students, of them 410 are males and 235 are females. Four colleges that follow Indian system of medicine are managed by private sector. There are two Ayurvedic colleges, one at Ilkal and another is in Bagalkot. There is one dental college that has enrolled 598 students. There are 11 polytechnic colleges in the district. Among them majority are private. There is only one Engineering college which is at Bagalkot, managed by private management. Professional education in the district is maintained by private institutions. This questions the issue of access and equity. Gender gap is significantly greater in professional education, where monetary investment is needed.

Table 4.22: Degree Education and Enrolment 2011-12

Taluk	Degree College - Government				Degree College - Private			
	No. of College	1st Year to final Year			No. of College	1st Year to final Year		
		Boys	Girls	Total		Boys	Girls	Total
Badami	1	232	160	392	7	1111	668	1776
Bagalkot	2	254	182	436	7	3197	1725	4922
Bilagi	1	141	94	235	2	122	38	160
Hunagund	2	171	141	312	10	1428	800	2228
Jamakhundi	5	319	163	482	5	1272	1286	2558
Mudhol	1	170	76	246	6	1416	1024	2440
District	12	1287	816	2103	37	8546	5541	14087

Source: Office of the Deputy Director, Department of Pre-university and Vocational Education, Bagalkot.

Box Item 4.2 Basaveshwar Vidya Vardhak Sangha

Shri Basaveshwar Vidya Vardhak Sangha was founded by his Holiness, Shri Guruswami Mahaswami of Bilur, a visionary far ahead of his times, in the year 1906. At present, the sangha has a network of 90 educational institutions from creche to Post graduate/Research levels, spread over the districts of Bagalkot Belagavi

in Karnataka state. The wide range of Institutions covers the disciplines of Engineering, Medical Sciences, Arts, Science, Commerce and Law, besides Pre primary, primary and high schools. The clarity of vision and untiring efforts of the founder and subsequent administrators have gone a long way in shaping the destiny of this premier educational organization over these nine decades, catering to the societal needs. Thus,

making a worthy contribution to the development of the country. Affairs of the Sangha are managed by the managing committee headed by the chairman along with the honorary secretary.



4.11.4 University Education

The University of Horticultural Sciences, Bagalkot is established by the Government of Karnataka through a Special Ordinance (No. 2 of 2008) on 22-11-2008 and duly enacted by Karnataka Act No 11 of 2010 Dated 13-05-2010. Bagalkot is rightly chosen as the head quarters as the district is known for its rich horticultural production base of grapes, pomegranate, banana, lime, guava, sapota, various types of vegetables, beetle vine, coconut, spices and medicinal plants. The region has congenial climate suitable for all kinds of horticulture crops making it an ideal place for the Horticulture University.

The University of Horticultural Sciences Bagalkot has the jurisdiction of entire state of Karnataka.

Accordingly its colleges, research and extension e-centres are spread across all the districts of the state. The academic programme at Degree and Doctoral Programmes in various branches of Horticulture and allied sciences.

The University currently offers Master's Degree Programmes in nine disciplines Vegetable Science; Fruit Science; Post Harvest Technology; Floriculture and Landscape Architecture; Plantation Spices Medicinal and Aromatic Plants; Crop Improvement and Biotechnology; Horticultural Entomology, Horticulture Pathology, Soil Science and Agriculture Chemistry at its various Campuses. Doctoral Degree Programme is imparted at Arabhavi and Bengaluru campus. Presently 168 M.Sc. students and 32 Ph.D students are enrolled in all the four campuses.

Table 4.23: The Graduate Programme in Horticulture, 2011-12

Name of the College and Location	Year of Establishment	Present Strength
College Of Horticulture, Mudigere Chikkamagaluru District	-	208
Krc College Of Horticulture, Arabhavi, Belagavi District	1994-95	253
College Of Horticulture, Bidar	2007-08	149
College Of Horticulture, Bagalkot	2008-09	174
College Of Horticulture, Kolar	2009-10	129
College Of Horticulture, Sirsi	2010-11	69
College Of Horticulture, Mysuru	2010-11	72
College Of Horticulture, Hiriyur, Chitradurga District	2010-11	62
College Of Horticulture, Munirabad, Koppal District	2010-11	68
Total	-	1184

Source: <http://bagalkot.adseva.in/uhs> Dated-4/11/2014.

Table 4.24: Regional Horticulture Research and Extension Centres

Places	Districts Covered
Mudigere (Chikkamagaluru district)	Chikkamangalur, Shivamogga Hassan, Dakshina Kannada, Udupi and Madikere
Hiriyur Babbur)(Chitradurga district)	Chitradurga, Tumakuru and Davanagere
Dharwad (Kundapur)	Haveri, Belagavi, Dharwad, Gadag and Uttar Kannada,
Bagalkot	Bagalkot, Vijayapura, Koppal, Ballari, Raichur, Bidar, Yadagiri and Kalaburagi
Bengaluru	Bengaluru, Kolar, Tumakuru, Ramanagara, Mysuru, Mandya, Chamarajanagar and Chikkaballapur.

Source: http://en.wikipedia.org/wiki/University_of_Horticultural_Sciences,_Bagalkot Dated-4/11/2014.

The significant achievements in the field of primary education are made possible through effective implementation of SSA, mainly focussed on equality, regional poverty and quality. It sets to provide quality primary education including life skills to all children with a focus on socially deprived children, girls and children with special needs.

4.12 Schemes for Promotion of Literacy Level

Education is embedded in the Constitution of India. Both the Central and State Governments finance several programmes on education. Bagalkot district administration has made sincere efforts to implement these programmes. Table 4.25 depicts the details of schemes and expenditure to improve literacy level under SSA in Bagalkot district. The significant achievements in the field of primary education are made possible through effective implementation of SSA, mainly focussed on equality, regional poverty and quality. It sets to provide quality primary education including life skills to all children with a focus on socially deprived children, girls and children with special needs. It includes development of all the components such as access, enrollment, infrastructure, provision of teacher and their capacity building, special provision for girl's education.

The district has spent Rs.41.120 lakhs for teacher learning enhancement during 2011-12. Jamakhandi taluk is the major

beneficiary with Rs. 9.14 lakhs. The district has spent Rs.251.940 lakhs for teacher training. The teacher professional development is given highest priority under quality initiative programme of SSA. The recruited teachers undergo 30 days training and an allied range of in service training programmes both in content and methodology.

One of major concerns of primary education is out of school children. To main stream these children various programmes like Feeder Schools, Summer Bridge Course, 12 months Bridge Course, Special Enrolment Drive etc. have been carried out. For this the district has released Rs. 81.775 lakhs. Hunagund and Bilagi have received higher proportion of grants.

Under SSA Programme all children from class I to class X from government and aided schools are given text books free of cost. The district has released a total amount of Rs. 89.358 lakhs for text books. Jamakhandi and Badami have received huge amount for distributing free text books compared to other taluks.

Table 4.25: Schemes for promotion of Literacy Level Under Sarva Shiksha Abhiyan (SSA) Programme in 2011-12 (Rs.in Lakhs)

Taluk	Badami	Bagalkot	Bilagi	Hunagund	Jamakhandi	Mudhol	Dist
Schemes	Amount released.						
TLE Grants for teachers	7.540	6.650	3.990	7.575	9.140	6.225	41.120
Teachers Training	46.160	40.740	24.720	46.330	55.780	38.210	251.940
Interventions for Out of School Children	1.224	11.895	23.439	25.626	11.107	8.484	81.775
Free Text book Under SSA Programme	18.275	13.924	7.679	15.017	20.271	14.175	89.358
Interventions for Children with Special Need (CWSN)	34.980	24.300	15.540	37.140	50.790	30.300	193.050
Civil Works	167.180	125.510	97.180	199.430	269.350	167.270	1025.920
Computer Aided Education in Upper Primary school	0	0	0	0	0	0	50.00
Innovative Activity	0	0	0	0	0	0	100.00
Community Training	13.842	11.232	7.710	13.500	16.200	13.158	75.642
Learning Enhancement Programme (LEP)	0	0	0	0	0	0	99.000
National Programme of Education for Girls at Elementary Level (NPEGEL)	34.530	31.021	16.913	36.827	44.430	37.024	200.745
Kasturba Gandhi Balika vidyalaya (KGBV)	43.370	43.370	43.370	27.270	43.370	43.370	244.120
Total	258.922	211.133	165.173	277.027	373.35	260.822	1795.427

Source: Office of Deputy Director, Department of Public Instruction, Bagalkot.

The SSA programme has taken initiatives to educate differently abled children. NGO's are involved in planning, training, medical rehabilitation and organizing awareness programmes. Ramps are built for such children. The district has

released Rs 193.050 lakhs for the intervention of CWSN. The major share of amount has gone to Jamakhandi taluk followed by Hunagund and Badami for Civil works such as minor repair of class rooms. The district has released

National Programme of Education for Girls at Elementary Level (NPEGEL) is launched in 2003-04 to reach the girls who are at risk to participate and continue education in schools. The district has released Rs.200.745 lakhs for this scheme. Jamakhandi and Mudhol are the major beneficiaries in the district.

Rs 1025.920 lakhs for such civil works. The Government has provided the Higher Primary Schools (HPS) with computer and multimedia package to enhance quality of learning among children. The district has released Rs. 100 lakhs for innovative activity and Rs.75.642 lakhs for community training. Learning Enhancement Programme is another component for which the district has released Rs.99 lakhs.

Girl's education is one of the priority agenda under SSA programme. National Programme of Education for Girls at Elementary Level (NPEGEL) is launched in 2003-04 to reach the girls who are at risk to participate and continue education in schools. The district has released Rs.200.745 lakhs for this scheme. Jamakhandi and Mudhol are the major beneficiaries in the district.

Under the scheme of Kasturba Gandhi Balika Vidyalaya the state has established residential schools in the educationally backward blocks for girls belonging to SC, ST, OBC and minorities. It aims to ensure access and quality education to girls. The district has released Rs.244.120 lakhs for this scheme. Over all, the district has released Rs 1795.427 lakhs under SSA scheme.

4.13 Per-capita Expenditure on Education

Public expenditure includes government's spending on educational institutions, education administration as well as subsidies for private entities. Public spending on education in India is very low compared to other country which is just 4.1 percent of GDP. It is universally recognized that education contributes to economic growth and social transformation. Investment in education is considered as the most valuable of all investments that yields high returns to both the individuals and the society.

Data on per capita expenditure on education is presented in table 4.26. The district per capita expenditure on education is Rs 1700. There is a significant variation in the per capita expenditure of taluks. Bilagi, Hunagund and Badami taluks have recorded higher per capita expenditure than the rest of the district. The expenditures of Mudhol and Bagalkot taluks are similar to the district level. The per capita expenditure of Jamakhandi taluk is well below the district expenditure. This shows that Jamakhandi taluk lags behind all other taluks in the district with regards to per capita expenditure on education.

Table 4.26: Per-capita Expenditure on Education 2011-12 (in Rs.)

Taluk	Population	Total Expenditure Rs. in Lakh	Per-capita Expenditure
Badami	330860	5952.53	1800
Bagalkot	285114	5120.63	1700
Bilagi	160294	3250.85	2000
Hunagund	321338	6139.95	1900
Jamakhandi	470176	7210.84	1500
Mudhol	285915	5079.65	1700
District	1889752	32754.45	1700

Source: Office of Deputy Director, Department of Public Instruction, Bagalkot.

4.14 Education Index of Bagalkot District

Table No.4.27: Education Index of Bagalkot District

Taluk	Index Value	Rank
Badami	0.612	4
Bagalkot	0.920	1
Bilagi	0.540	6
Hunagund	0.829	2
Jamakhandi	0.818	3
Mudhol	0.579	5

Bagalkot topped with 0.920 values in the education index of Bagalkot district. Bilagi occupies bottom rank with 0.540 value. Hunagund and Jamakhandi taluks are nearer to the education index of Bagalkot and are in 2nd and 3rd ranks respectively. There is substantial difference in education index values of Mudhol, Badami and Bilagi taluks, because the literacy rate and Gross Enrolment Rate at primary level is highest in Bagalkot taluk. On the contrary the literacy and GER in the taluk of Bilagi and Mudhol are comparatively lower. Hunagund taluk is better in case of both indicators of education index i.e., literacy and Gross Enrolment Rate. It may be inferred that living standard and education index are closely associated in Bilagi taluk, which is quite poor in both indices.

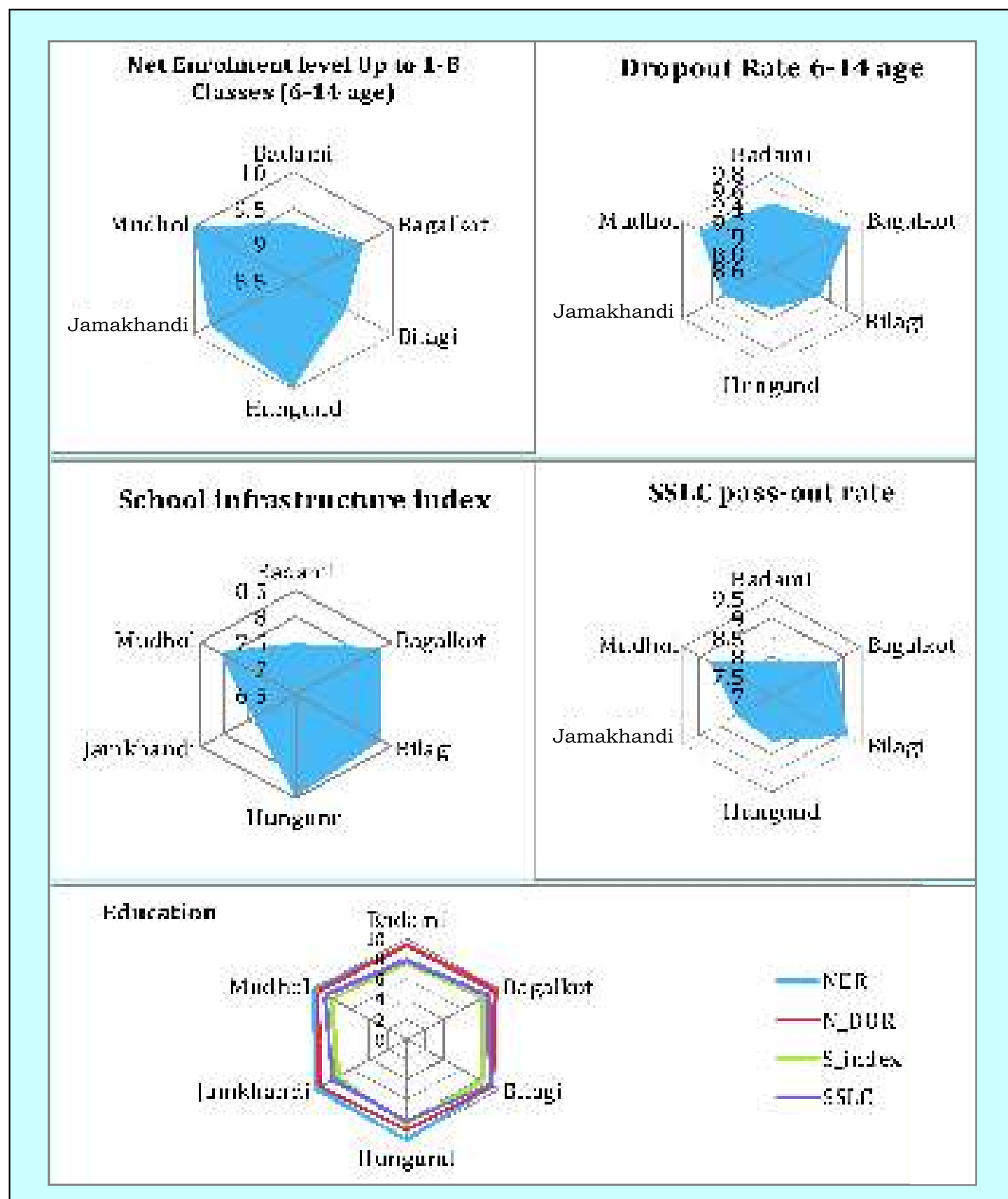
4.15 Radar Analyses for Education

The radar gives the status of education indicator of all taluks

of Bagalkot district, it involves four indicators namely net enrolment rate, dropout rate, school infrastructure index and SSLC pass out rate which taken together decide the quality of education. It is noticed from the radar that Bagalkot taluk has highest average value of education indicator followed by Bilagi and Hunagund taluk respectively. However, Jamakhandi taluk has lowest average value of education indicator. Among the indicators of education, net enrolment rate and dropout rate have deep influence on the education indicator. The school infrastructure index is lagging behind in the education indicator of the Bagalkot district. Measures should be taken to improve the infrastructure of schools so as to increase the quality of education among the children.

There is substantial difference in education index values of Mudhol, Badami and Bilagi taluks, because the literacy rate and Gross Enrolment Rate at primary level is highest in Bagalkot taluk. On the contrary the literacy and GER in the taluk of Bilagi and Mudhol are comparatively lower.

Fig: 4.11 Indicator-wise Radars on Education



4.16: An Overview and Persisting Educational Gaps in the District

The attainment of the Bagalkot district in education is encouraging. However several old and new aspects have to be addressed to reach the goal of universalization of primary education. The district has made remarkable progress in both male and female literacy rates. However gender differentiations continue in literacy and enrolment at various levels of education. More over rural-urban disparity in literacy continues in the district despite of the decline in decade. Professional education is mainly concentrated in Bagalkot city only.

Overall disparity across taluks is visible in the various indicators of education. Bilagi taluk which was identified by Dr.Nanjudappa report as more backward taluk in the district continues to be relatively backward taluk in the district. Because it has lower

literacy rate, its GER and NER are much below the district level. It has more number of out of school children and dropouts are also more, quality of education is poor and very few higher education institutions are found. Similarly Hunagund taluk has lower literacy rate, out of school children are more, has less enrolment at secondary level and transition rate. The attention has to be given more to these two taluks. The education index of district has indicated Bilagi taluk as backward only next to Mudhol.

The two Millennium Development Goals are related to education, namely universalizing elementary education and promoting gender equality in education. Pertaining to the first aspect, the district needs at least a few years more for universalization of elementary education. As far as the second goal, Bagalkot district has to make serious efforts to reduce gender gap in education.

CHAPTER -5 HEALTH AND NUTRITION



CHAPTER-5

HEALTH AND NUTRITION

5.1 Introduction

Health is a fundamental human right and a social goal worldwide. Health is necessary for the realization of basic human needs and to attain the status of a better quality of life. The issue of health is of great importance both from the point of view of individuals and that of the nation. The WHO's declaration on "Health for All" in 1979 has led most of the Governments including developed and under developed countries to give more priority to their health care system through higher allocation and better utilisation of resource in order to improve the quality of health care services. Health being a state subject in Indian federal system, different states has been trying to meet the WHO health goal through utilization of resource in the country.

The most widely accepted definition of health given by World Health Organization is as follows. "Health is a state of complete physical, mental and social well being and not merely an absence of disease or infirmity." This definition contains all components of welfare in terms of physical, mental and spiritual side of life. India, with a population of more than 1 billion people, has many challenges in improving the health and nutrition of its citizens. Steady decline have been noted in fertility, maternal, infant and child mortalities and the prevalence of severe manifestations of nutritional deficiencies. But the pace has been slow and falls short of national and Millennium Development Goals target. The likely explanations include social inequities, disparities in health systems between and within states and consequences of urbanization and demographic transition.

There exists a strong correlation between health and development.

The degree of their association is bidirectional in which health influences economic development and, in turn, is influenced by the development process. A major channel responsible for health development especially in a developing country is the Government financing and provisioning of essential health care services. The role of the Government in providing adequate health services which are accessible and affordable to all sections of its population is of critical importance.

Healthcare in India is the responsibility of constituent states and territories of India. Central Government's efforts in influencing public health have focused on the five year plans, on coordinated planning with the states and sponsoring major health programmes. Government expenditures are jointly shared by the central and state governments. In this chapter an attempt has been made to understand health status of Bagalkot district in terms of reproductive and child health aspects like, IMR and MMR, ANC coverage and anemia among pregnant women, institutional delivery, couple protection issues and family welfare, immunization of children and under-weight children. It focuses on communicable diseases, availability of health infrastructure and personnel facility like doctors, nurses, performance of various health schemes such as Asha, Madilu, NRHM and per capita expenditure on health sector in Bagalkot district. The data is analysed taluk- wise.

5.2 Demography

This section is devoted to the discussion on the demographic aspects such as sex-wise and residence wise distribution of the district and the constituent taluks.

India, with a population of more than 1 billion people, has many challenges in improving the health and nutrition of its citizens. Steady decline have been noted in fertility, maternal, infant and child mortalities and the prevalence of severe manifestations of nutritional deficiencies. But the pace has been slow and falls short of national and Millennium Development Goals target.

Healthcare in India is the responsibility of constituent states and territories of India. Central Government's efforts in influencing public health have focused on the five year plans, on coordinated planning with the states and sponsoring major health programmes.

5.2.1 Population by Sex

Table 5.1: Population of Bagalkot District by Sex, 2001 and 2011

Taluk	Population 2001					Population 2011					Decadal Growth Rate
	Male	Percent	Female	Percent	Total	Male	Per cent	Female	Per cent	Total	
Badami	146424	50.15	145500	49.84	291924	166748	50.90	164112	49.60	330860	13.5
Bagalkot	125122	50.60	122149	49.39	247271	143220	50.23	141894	49.76	285114	15.4
Bilagi	71271	50.19	70725	49.80	141996	80147	50	80147	50	160294	12.7
Hunagund	144462	50.32	142624	49.67	287086	161741	50.33	159597	49.66	321338	12
Jamakhandi	207904	50.90	200537	49.09	408441	237086	50.42	233090	49.57	470176	15.3
Mudhol	123461	50.53	120855	49.46	244316	142961	50.00	142954	49.99	285915	16.9
District	834247	50.50	817645	49.49	1651892	950111	50.27	939641	49.72	1889752	14.46

Source: Census of India, 2001 and 2011.

Fig. 5.1: Decadal Growth Rate in 2011



The highest population growth rate is found in Mudhol taluk (16.9 percent), followed by Bagalkot taluk (15.4percent) and Jamakhandi taluk (15.3 percent). The lowest population growth during the decade is found in Bilagi taluk with 12.7percent.

Table 5.1 gives the details of population of the Bagalkot district by sex during 2001 and 2011. The decennial growth rate of population of Bagalkot district is 14.46 percent in 2011. The highest population growth rate is found in Mudhol taluk (16.9 percent), followed by Bagalkot taluk (15.4percent) and Jamakhandi taluk (15.3 percent). The lowest population growth during the decade is found in Bilagi taluk with 12.7percent.

As per the sex wise population growth during 2001 and 2011 is concerned the district has noticed a marginal reduction in male population with just 0.23 percent and increase in female population with 0.23 percent. This shows that the sex ratio is improving marginally in favour of females.

However female population in Badami and Hunagund taluk has been decreased marginally.

5.2.2 Population by Place of Residence

The statement that India is a country of villages can be well applicable to Bagalkot district. As the census data of 2001 and 2011 reveals, the large proportion of population in this district lives in rural areas. However the rural population in district is decreased by 3 percent in 2011 in comparison with that of 2001 census. Contrary to this the rural population of Badami taluk is increased marginally in 2011. The other taluks, especially Jamakhandi and Hunagund have noticed significant decrease in rural population in 2011.

Table 5.2: Population by Residence in Bagalkot district, 2001 and 2011

Taluk	Population 2001				Total	Population 2011				Total
	Rural	Percent	Urban	Percent		Rural	Percent	Urban	Percent	
Badami	214869	73.60	77055	26.39	291924	246804	74.59	84056	25.40	330860
Bagalkot	156283	63.20	90988	36.79	247271	173181	60.74	111933	39.25	285114
Bilagi	126542	89.11	15454	10.88	141996	142502	88.90	17792	11.09	160294
Hunagund	217129	75.63	69957	24.36	287086	197557	61.49	123781	38.52	321338
Jamakhandi	256694	89.41	151747	37.15	408441	298146	63.41	172030	36.58	470176
Mudhol	201855	82.62	42461	17.37	244316	233716	81.74	52199	18.25	285915
District	1173372	71.03	478520	28.96	1651892	1291906	68.36	597846	31.63	1889752

Source: Census of India, 2001 and 2011.

The decrease of rural population is nominal in Bilagi, Mudhol and Bagalkot taluks. It is to be noted that more than 80 percent of population in Bilagi and Mudhol taluks are ruralites. The urbanization in these taluks is very slow. Higher the urbanization greater the development and modernization. In this case, Bagalkot district seems to be traditional rather than modern.

5.2.3 Crude Birth and Death Rates

Table 5.3 depicts that district level crude birth rate (22.86) is

higher than that of state level (19.96). Similarly crude death rate in Bagalkot district (7.04) is higher than that of state level (6.18). The highest CBR is recorded in Bagalkot and Mudhol taluks with 25.84 and 25.39 respectively. The highest CDR is also recorded in these two taluks. Bilagi and Badami taluks have recorded comparatively lower CBR and CDR in Bagalkot district.

The urbanization in these taluks is very slow. Higher the urbanization greater the development and modernization. In this case, Bagalkot district seems to be traditional rather than modern.

Fig: 5.2: Crude Birth Rate and Crude Death Rates of Bagalkot District, 2011



India's NRHM is launched in April 2005 with a strong commitment to reduce maternal and infant mortality and to provide public health services. Infant mortality rate and maternal deaths are correlated. These two reflect generally poor nutrition and medical care.

Table 5.3: Crude Birth Rate and Crude Death Rates of Bagalkot District, 2011

Taluk	CBR	CDR
Badami	21.47	5.67
Bagalkot	25.84	8.77
Bilagi	20.39	5.68
Hunagund	22.1	6.78
Jamakhandi	21.99	7.19
Mudhol	25.39	8.16
District	22.86	7.04
State	19.96	6.18

Source: Dept of Health and Family Welfare, Bagalkot.

5.3 IMR and MMR

5.3.1 Infant Mortality Rate

Every year in India 2.4 million children and more than nearly 136000 women die for reasons that could be prevented the number represents about 1/5 of the global total. There is a dramatic reduction only in the futile losses. Can India hope to reach the Millennium

Development Goals on maternal and child mortality? India's NRHM is launched in April 2005 with a strong commitment to reduce maternal and infant mortality and to provide public health services. Infant mortality rate and maternal deaths are correlated. These two reflect generally poor nutrition and medical care.

Fig: 5.3: Taluk-wise IMR in Bagalkot District, 2001 and 2011

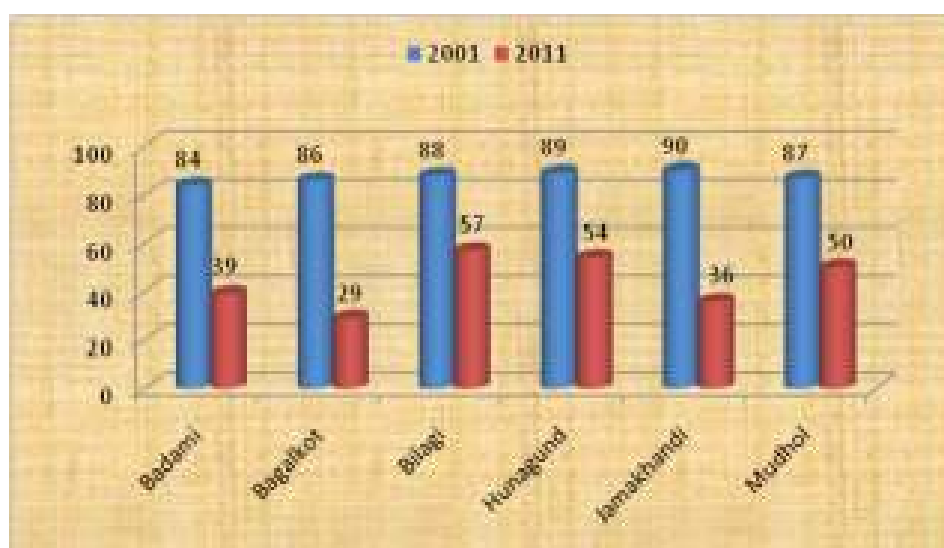


Table 5.4: Taluk-wise IMR in Bagalkot District in 2001 and 2011

Taluk	IMR Per 1000 Live Births	
	2001	2011
Badami	84	39
Bagalkot	86	29
Bilagi	88	57
Hunagund	89	54
Jamakhandi	90	36
Mudhol	87	50
District	43	43
State	58	41

Source: SRS and Dept of Health and Family Welfare, Bagalkot 2011.

Table 5.4 presents IMR in Bagalkot district and in its various taluks during 2001 and 2011 census. The IMR rate in various taluks has been decreased significantly. The data related to IMR in 2011 reveals that the taluks of Bilagi, Hunagund and Mudhol have recorded higher rate of IMR compared to district level with 43per 1000 live births. It is worthwhile to note that the district has recorded higher IMR compared to state level IMR of 41 per 1000 live births in 2011.

5.3.2 Maternal Mortality Rate

MMR is one of the important indicators of women's health. The data related to MMR in the district

is considerably higher with 163 per lakh live births. There is a substantial variation in MMR of different taluks of district. Badami and Jamakhandi taluks exceed the MMR of the district. The highest MMR is found in Badami taluk with 256 per lakh live births. It is mainly due to lower female literacy rate in the taluk. Therefore, there is a close relationship between female literacy and MMR. Mudhol taluk has recorded lowest MMR as compared to other taluks of the district. The MMR of Bilagi and Hunagund taluk are nearer to the district MMR.

The taluks of Bilagi, Hunagund and Mudhol have recorded higher rate of IMR compared to district level with 43per 1000 live births. It is worthwhile to note that the district has recorded higher IMR compared to state level IMR of 41 per 1000 live births in 2011.

The highest MMR is found in Badami taluk with 256 per lakh live births. It is mainly due to lower female literacy rate in the taluk. Therefore, there is a close relationship between female literacy and MMR.

Table 5.5: Taluk-wise MMR in, 2001 and 2011

Taluk	MMR Per Lakh Live Births	
	2001	2011
Badami	10	256
Bagalkot	9	113
Bilagi	8	146
Hunagund	6	147
Jamakhandi	5	223
Mudhol	4	89
District	16	163
State	-	178

Source: SRS and Dept of Health and Family Welfare, Bagalkot 2001 and 2011.

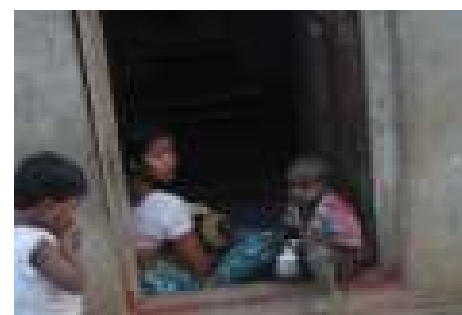
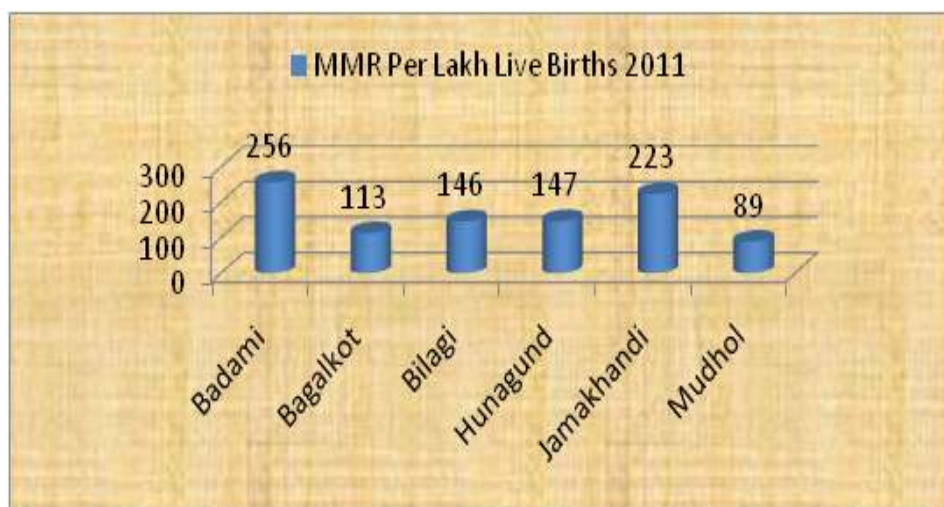


Fig: 5.4: Taluk-wise MMR in, 2011



The big gap between MMR of 2001 and 2011 is mainly because of the two different sources used for the MMR data. The 2001 data is derived from Department of Health and Family Welfare of Bagalkot, where as the 2011 MMR data is considered from SRS 2011, which is suggested by the Human Development Division, Planning Department of Govt of Karnataka.

As compared to 2009-10, the Couple Protection Rate has been increased in all the taluks except Mudhol taluk in 2011-12. Jamakhandi and Mudhol taluk have recorded lower CPR, compared to the district level.

MMR in Bagalkot district is lower compared to state level MMR. Karnataka has recorded 178 MMR per lakh live births in 2009. Whereas Bagalkot district has recorded 163 MMR per lakh live births in 2011-12. However, the taluks of Badami and Jamakhandi have recorded highest MMR per lakh live births in the state.

The big gap between MMR of 2001 and 2011 is mainly because of the two different sources used for the MMR data. The 2001 data is derived from Department of Health and Family Welfare of Bagalkot, where as the 2011 MMR data is considered from SRS 2011, which is suggested by the Human Development Division, Planning Department of Govt of Karnataka.

5.4 Couple Protection Issues and Family Welfare

5.4.1 Couple Protection Rate

The Couple Protection Rate (CPR) is usually expressed as the percentage of women in the age group of 15-49 years protected from pregnancy and child birth in the given year. The important factor influencing CPR are

available methods of birth control, distribution of supply, service and centres and their stamping patterns (Mukarji.S).

The CPR in Bagalkot district is significantly higher than that of state level (Table 5.6). As compared to 2009-10, the Couple Protection Rate has been increased in all the taluks except Mudhol taluk in 2011-12. Jamakhandi and Mudhol taluk have recorded lower CPR, compared to the district level. It calls for need for population control in the district.

5.4.2 Family Welfare Centres

Family Planning Association of India is established in 1949. Family planning is one of the most basic and essential health care services. The ability to change the number and spacing of their children promotes healthier mothers and children. At least 200 million women in need lack access to modern methods of family planning. Family planning is an effective means to reduce maternal mortality by preventing unwanted pregnancy and unsafe abortion.

Table 5.6: Couple Protection Rate, 2009-10 and 2011-12

Taluk	Couple Protection Rate	
	2009-10	2011-12
Badami	69	71
Bagalkot	73	78
Bilagi	64	69
Hunagund	66	69
Jamakhandi	51	54
Mudhol	61	59
District	64	74
State	-	66.42

Source: Dept of Health and Family Welfare, Bagalkot 2009-10 and 2011-12.

Table 5.7: Family Welfare Centres and Sterilisation, 2011

Family Welfare			Sterilization	
Taluk	Centre	Sub Centres	Vasectomy	Tubectomy
Badami	12	43	1	2820
Bagalkot	9	31	10	3459
Bilagi	4	25	13	1472
Hunagund	16	54	2	2581
Jamakhandi	10	48	0	4892
Mudhol	10	31	1	3364
District	61	232	27	18588

Source: Dept of Health and Family Welfare, Bagalkot 2011.

There are totally 61 family welfare centres and 232 sub centres in Bagalkot district (Table 5.7). The highest number of family welfare centres are found in Hunagund taluk and Jamakhandi taluk. The lowest number of family welfare centres is found in Bilagi taluk as it is a small taluk in comparison with other taluks. It is worrisome to note that most of the sterilization is related to women in the form of tubectomy. As compared to 27 vasectomies, 18588 tubectomy cases are found in Bagalkot district. Jamakhandi, Mudhol and Badami taluks have not recorded a single vasectomy case. In other taluks expect Bilagi taluka vasectomy does not exceed 10 cases. This clearly shows that the family planning responsibility is mainly on the shoulders of women.

5.5 Infrastructure and Health Personnel facility

Health Services are provided to the community through a network of Sub-centres, Primary

Health Centres (PHCs) and Community Health Centres (CHCs) in the rural areas and Hospitals and Dispensaries etc., in the urban areas provide health care services. The Primary Health Care infrastructure in rural areas has been developed as a three-tier system.

Primary Health Centres (PHCs) are the first contact points between village community and the Medical Officer. The PHCs are envisaged to provide an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The PHCs are established and maintained by State Governments under the Minimum Needs Programme (MNP) and Basic Minimum Service Programme (BMS). There are 23673 PHCs functioning in the country as on March 2010.

Community Health Centres (CHCs) are being established and

It is worrisome to note that most of the sterilization is related to women in the form of tubectomy. As compared to 27 vasectomies, 18588 tubectomy cases are found in Bagalkot district. Jamakhandi, Mudhol and Badami taluks have not recorded a single vasectomy case.

The PHCs are established and maintained by State Governments under the Minimum Needs Programme (MNP) and Basic Minimum Service Programme (BMS). There are 23673 PHCs functioning in the country as on March 2010.



There are totally 3 allopathy hospitals with 300 beds and 19 hospitals that have Indian sytem medicine and dispensaries with 26 beds. Each taluk has primary health centres and community health centers.

Out of 712 hospitals in the district 638 are private hospitals, which accounts for 87 percent. The data reveals that the number of private hospitals is significantly higher than of government hospitals in the district.

maintained by the State Government under MNP/BMS programme. CHCs have four medical specialists i.e. Surgeon, Physician, the Gynaecologist and Paediatrician supported by 21 paramedical and other staff. They provide the required health care services with 30 in-door beds, one OT, X-ray, Labour Room and Laboratory facilities and serve as a referral centre for 4 PHCs and also provide facilities for obstetric care and specialist consultations.

5.5.1 Health Infrastructure

Table 5.8 provides taluk -wise details of different hospitals and availability of beds in Bagalkot district. There are totally 3 allopathy hospitals with 300 beds and 19 hospitals that have Indian sytem medicine and dispensaries with 26 beds. Each taluk has primary health centres and community health centers. There are totally 45 PHCs with 270 beds in Bagalkot district. Hunagund taluk has highest number of PHCs (13) and beds (78), followed by

Badami taluk. The lowest number of PHC and beds are found in Bilagi taluk, as it is comparatively a smaller taluk.

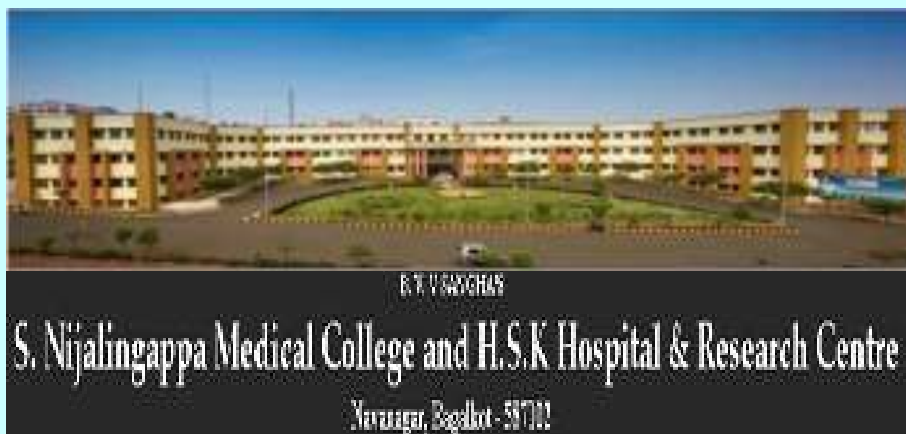
There are totally 7 community health centres with 210 beds in Bagalkot district. Badami and Hunagund have 2 CHCs with 60 beds. These taluks have better public health facilities compared to other taluks. Bilagi, Jamakhandi and Mudhol taluks have 1 CHC each with 30 beds. Bagalkot taluk has no CHC but it has a district hospital with 100 beds.

Out of 712 hospitals in the district 638 are private hospitals, which accounts for 87 percent. The data reveals that the number of private hospitals is significantly higher than of government hospitals in the district. These private hospitals are concentrated in Jamakhandi, Bagalkot and Mudhol taluks. This clearly indicates that the health needs of people are met mainly by private hospitals.

Table 5.8: Types of Hospitals and Beds in Bagalkot District, 2011

Taluk	Allopathy Hospital	Beds	PHCs	Beds	Private Hospital	Beds	Community Health Centre	Beds	Indian System Hospitals and Dispensaries	Beds
Badami	0	0	9	54	80	45	2	60	2	0
Bagalkot	2	200	6	36	128	1240	0	0	1	10
Bilagi	0	0	2	12	31	29	1	30	5	6
Hunagund	0	0	13	78	97	68	2	60	3	0
Jamakhandi	1	100	7	42	180	336	1	30	4	6
Mudhol	0	0	8	48	122	210	1	30	4	0
District	3	300	45	270	638	1928	7	210	19	26

Source: Dept of Health and Family Welfare, Bagalkot 2011.

Box Item 5.1: S. Nijalingappa Medical College and H.S.K. Hospital and Research Centre

To crown its endeavour the Sangha started Hanagal Sri Kumareswar hospital in 2000. Two years later Medical College was started in the old campus (in 2002) with the affiliation of RGUHS & MCI. The foundation stone for medical college and hospital was laid and the construction activity followed immediately in full swing over an area of 114 acres and in over just 2 years the bare mountain at Navanagar witnessed a new monument rising up which made everyone hold their breath with awe and delight. It stands apart and has become the landmark of Bagalkot with its majestic building and a beautiful campus. The hospital has been named after Late His Holiness Shri Kumaraswamiji of Hanagal who convened the first Veerashaiva Mahasabhe which led to the establishment of Veerashaiva Vidya Vardhaka Sangha in Karnataka.

The college has been named after Shri S. Nijalingappa, for granting 250 acres of land on lease for a period of 30 years when he was the chief minister of Karnataka which was later regularised and granted by Late Shri J. H. Patel when he was the Chief Minister. Late Dr. S. J. Naga lotimath, the B.C. Roy awardee of international

fame was appointed as the first medical director and was assigned the task of planning and establishing the medical college. Dr. T.M. Chandra shekhar, the first and the most beloved principal, now dean of SNMC has contributed immensely. Both Dr. S. J. Naga lotimath and Dr. T. M. Chandra shekhar have given a very good beginning to SNMC and hospital. Shri Siddanna Shettar, Chairman, Governing Council of Medical, Dental and Nursing college has been extending his full support to ensure that the best facilities and best teaching faculty is made available to the students and people alike..... Under the able leadership and guidance of Shri Siddanna Shettar this medical institute is growing tremendously.

He introduced several health schemes for the benefit of the students. Member doctors and their family and other staff. With the introduction of Yeshaswini Health Scheme, Vajpayee Arogya Scheme, Thayi bhagya, Balasanjeevini the poor were enabled to utilise the state of the art medical care of a private tertiary health care centre like SNMC. Dr. C. S. Patil the past principal of the college has gone a long way in improving the upcoming

medical college with his immense experience. Dr. Ashok S. Mallapur the present principal is associated with this institution since the inception from 2000. He was instrumental in starting the hospital way back in 2000 with the guidance of Late Dr. S.J. Nagalotimath. He, along with the cooperation of management and the dedicated staff is striving to modernize and well equipping the college and the hospital.

Within a span of 9 years, it is well established with P.G. in all major Pre, Para and Clinical departments. The college was granted by MCI recently an increase intake from 100-150 seats for MBBS course. It also has doctorate courses in Physiology, Microbiology and Community Medicine. The college and hospital are heralding the message of excellent medical care and health services. "QUALITY HEALTH CARE TO SERVE THE COMMUNITY" at affordable cost being its motto. The hospital is fully equipped with state of art technology machines like CT scan, MRI, colour doppler, TMT, dialysis, Echocardiography, Lithotripsy, Endoscopy, Ultrasonography, Laparoscopy, Lasers, Fundal camera, EEG, NICU equipments, EMG, audiometry, 14 hitech major OTs with 146 Intensive Care beds.

5.5.2 Health Personnel facility

Table 5.9 provides the picture of health personnel available in the district. The availability of doctors and nurses per 1000 population is calculated for the district and different taluks. The district has considerably few of doctors with only 0.023 per 1000 population. Bilagi taluk has comparatively higher availability of doctors per 1000 population. Hunagund is in the second place with 0.030 and Badami with 0.025 per 1000 population. Jamakhandi taluk has

lower number of doctors per 1000 population.

The availability of nurses per 1000 population in Bagalkot district shows that only 0.44 nurses are available per 1000 population. Bagalkot taluk has highest number of nurses with 1.58 per 1000 population. All the other taluks have lower rate of nurses' availability than that of the district level. Hunagund taluk has the lowest number of nurses per 1000 population. This calls for increasing the number of health personnel in the district.

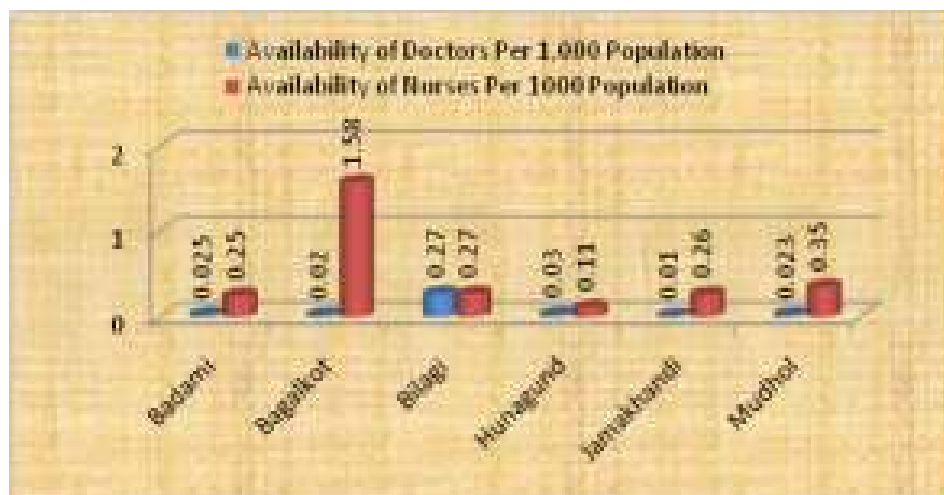
The availability of nurses per 1000 population in Bagalkot district shows that only 0.44 nurses are available per 1000 population. Bagalkot taluk has highest number of nurses with 1.58 per 1000 population.

Table 5.9: Health Personnel Facility -Availability of Doctors and Nurses, 2011

Taluk	Availability of Doctors Per 1,000 Population	Availability of Nurses Per 1000 Population
Badami	0.025	0.250
Bagalkot	0.020	1.580
Bilagi	0.270	0.270
Hunagund	0.030	0.110
Jamakhandi	0.010	0.260
Mudhol	0.023	0.350
District	0.023	0.440

Source: Dept of Health and Family Welfare, Bagalkot 2011.

Fig: 5.5: Health Personnel facility Availability of Doctors and Nurses, 2011



Box Item 5.2 : Bagalkot District Hospital



A pregnant HIV+ Woman turned back for lack of gynaecologist

The Bagalkot District Hospital has the latest equipment worth lakhs of rupees, but is plagued by shortage of doctors, nurses and 'Group D' employees.

Recently, a pregnant woman afflicted with HIV came to the hospital for delivery but was turned back as the hospital had no gynaecologist. The private hospitals on knowing her medical condition declined to attend to the patient. Even though it is a 250-bed hospital the public are put to great hardship and are deprived of timely treatment due to paucity of doctors. Of the 20 doctor posts granted to the district hospital, only five doctors are working at present. Post of gynaecologist, anaesthetist, pediatrician, nephrologist, ENT specialist and others remain vacant. However, now a gynaecologist has been appointed on contract basis. But a lone gynaecologist will not be able to handle all the cases for 24 hours in a day. In addition to this there is also a shortage of nurses and 'Group D' employees.

Of the 55 posts of nurses only 15 are filled and out of the 80 posts of 'Group D' employees, 62 posts remain vacant. In total, including the gynaecologist on contract basis and paediatrician and District Surgeon Dr M G Beedimane

eight doctors are serving at the hospital.

Even if one of the doctors is on leave there is a tremendous pressure on the other doctors, as they will have to dabble with too many cases. Even though the hospital has ultra sound machine and dialysis equipment there aren't any radiologist and nephrologist to attend to it.

No burns ward yet

The hospital has staff to treat patients with burn cases but strangely the burns ward has not been started yet. The radiologist who was appointed at the district hospital has got himself deputed to the McGan Hospital in Shivamogga owing to political influence. Thus, the ultra sound machine is being rendered useless since past three months. More over, due to non-availability of radiologist the patients are referred to private hospitals for X-Ray, MRI, CT scanning. As per the Nanjundappa report dialysis equipment was granted to the hospital. But it remains unused as there is no nephrologist.

“The situation at the district hospital can only be improved if the posts of doctors, nurses and 'Group D' employees are filled immediately. Until then the condition of patients will continue to remain grim,” observed Dr Beedimane.

Source : Deccan Herald 13 January, 2010



A look at existing PHC and Sub centre facilities shows that it is very poor in the district. The average population served by PHC at district level is 41349, which is quite higher than the norm. Bilagi taluk has recorded very high average population served by PHC with 84584

5.5.3 Primary Health centre and sub-centres

Table 5.10 provides the details of population served by PHC and sub-centres in Bagalkot district. The norm for PHC and Sub centre coverage is that one PHC per 30000 populations and 5000 population per sub centre. A look at existing PHC and Sub centre facilities shows that it is very poor in the district. The average population served by PHC at district level is 41349, which is quite higher than the norm. Bilagi taluk has recorded very high average population served by PHC with 84584 followed by Jamakhandi taluk with 69043. It is 2 to 3 times higher than the norm. Bilagi taluk has only two PHCs. Hence, population served per PHC is more compared to other taluks. Hunagund taluk has more PHCs with 14. Comparatively less population is served by PHC's. It is only taluk which is according to the said norm. All the five taluks have higher average population served by PHC than the norm. This shows the lack of health infrastructure in the taluks of Bagalkot district.

The details of average population served by sub-centres clearly show

that Jamakhandi taluk has very high proportion of population per sub-centres. Although Jamakhandi has good number of sub-centres i.e., 48, the population served by sub-centres is too high owing to highest population of the taluk. The sub-centres of Hunagund taluk serves the lowest average population. At district level, the average population served by sub-centers is 7932. Jamakhandi and Mudhol taluks seems to be more backward in providing healthcare services to people.

5.6 Ante Natal Care Coverage and Anemia among Pregnant Women

5.6.1: Ante Natal Care (ANC) Coverage

Proper Ante Natal Care (ANC) is crucial for the good health of both mother and child. ANC period begins with conception and continues through the pregnancy. Good ANC forms the foundation for safe delivery; healthy mother and healthy child depends upon antenatal services. ANC aims at reducing morbidity and mortality during pregnancy.

Table 5.10: Population Served by Primary Health centres and Sub-centres, 2011

Taluk	No. of PHCs	Average Population served by Primary Health centres (PCs)	No. of Sub centres	Average Population Served by Sub-centres
Badami	9	34635	41	7215
Bagalkot	6	45393	36	7361
Bilagi	2	84584	28	6764
Hunagund	14	23975	39	6215
Jamakhandi	9	69043	48	10859
Mudhol	8	42081	32	9666
District	45	41349	224	7932

Source: Dept of Health and Family Welfare, Bagalkot 2011.

Table 5.11: Percentage of Pregnant Women Registered and Received ANC by Anganwadis, 2009-10 to 2011-12

Taluk	Percentage of Pregnant Women Received Full ANC (3 ANC visits + 90 IFA tablets + TT)		
	2009-10	2010-11	2011-12
Badami	85	84	100
Bagalkot	90	96	86.93
Bilagi	80	82	74.89
Hunagund	75	76	87.10
Jamakhandi	83	88	75.59
Mudhol	85	71	78.40
District	-	-	83.95
State	-	-	91.98

Source: Dept of Health and Family Welfare, Bagalkot 2009-10 to 2011-12.

Fig: 5.6: Percentage of Pregnant Women Received Full ANC, 2011-12

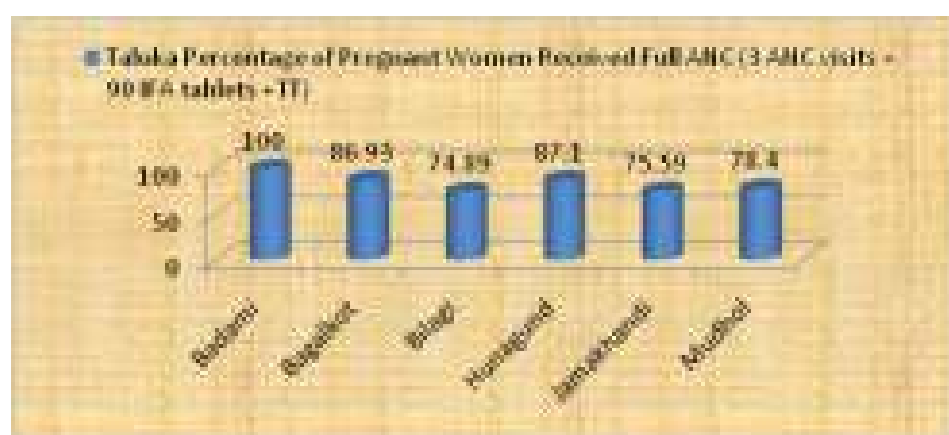


Table 5.11 clearly shows that the utilization of ANC by pregnant women in Bagalkot district has been increased significantly. There is a substantial variation in ANC coverage among pregnant women in different taluks of Bagalkot district. The highest percentage of ANC coverage among pregnant women is found in Badami taluk with 100 percent. Bagalkot and Hunagund taluks exceed the district level ANC rate of 83.95 percent. These taluks have made considerable progress. However, Bilagi, Jamakhandi, Mudhol taluks lag behind the district in ANC coverage.

5.6.2 Anemia among pregnant women

According to WHO, the world wide prevalence of anemia in pregnant women is 41.8 percent. Hence it has become public health problem. Under RCH programme, Government wants to achieve 100 percent coverage of pregnant women under antenatal care. Anemia is the leading indirect cause of maternal death and account for 1 in 5 maternal deaths (India, Registrar General, 1993). Anemia is also rampant among young Indian women. It affects rich and poor population alike. The available data (Table 5.12)

More than half of pregnant women in Bagalkot district are anaemic. Jamakhandi, Hunagund and Bagalkot taluks have highest percentage of pregnant women with anemia. Badami, Mudhol and Bilagi taluks have better position in anemia and pregnant women with anemia are also less compared to other taluks in Bagalkot district.

reveals that more than half of pregnant women in Bagalkot district are anaemic. Jamakhandi, Hunagund and Bagalkot taluks have highest percentage of pregnant women with anemia. Badami, Mudhol and Bilagi taluks have better position in anemia and pregnant women with anemia are also less compared to other taluks in Bagalkot district.

5.6.3 Pregnant Women Provided with Nutrition

Anemia in pregnancy is a major public health problem in the developing countries. It is one of the common causes of high maternal mortality. Anemia is responsible for about 20 percent of maternal deaths and in another 20 percent as a predisposing factor. Prevalence of anemia during pregnancy ranges between 40-70 percent in India. Anemia is also rampant among young

Indian women, which ultimately affects the maternal mortality as well as the fetal outcome.

In this context government is making efforts to provide nutritious food to pregnant women through anganwadi centres. It is found that more than 95 percent of pregnant women are provided with nutrition treatment by anganwadi centres (Table 5.13). Bilagi taluk has recorded highest nutrition treatment provided to pregnant women and the lowest is found in Hunagund taluk. The coverage of pregnant women under nutrition is also considerably higher in the district. In spite of this the earlier data shows that more than 50 percent of women suffer from anemia. It means pregnant women are not properly utilizing these programmes to enhance the nutrition level.

Table 5.12: Pregnant Women who are Anemic, 2009-10 to 2011-12

Taluk	Pregnant Women who are Anemic 2009-10	Pregnant Women who are Anemic 2010-11	Pregnant Women who are Anemic 2011-12
Badami	19	21	27.34
Bagalkot	18	30	58.34
Bilagi	19	23	46.32
Hunagund	32	39	59.41
Jamakhandi	29	36	64.52
Mudhol	21	26	31.68
District	-	-	58.27

Source: Dept of Health and Family Welfare, Bagalkot 2009-10 to 2011-12.

Fig: 5.7: Percentage of Pregnant Women who are Anemic, 2011-12

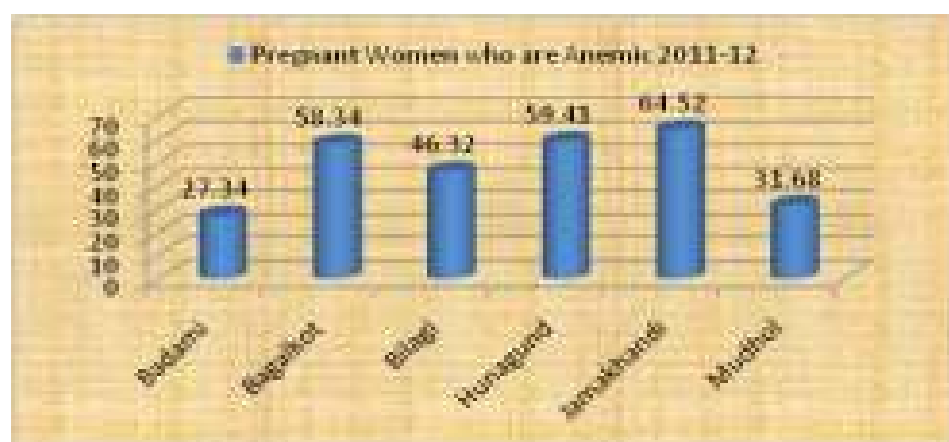


Table 5.13: Pregnant Women who are Provided With Nutrition, 2011-12

Taluk	Average population Served by Anganwadi Centres	Percentage of Pregnant Women Provided with Nutrition Treatment
Badami	97.93	95.00
Bagalkot	95.67	97.00
Bilagi	86.94	99.00
Hunagund	96.78	91.00
Jamakhandi	91.57	96.00
Mudhol	91.00	95.00
District	86.63	95.50

Source: Dept of Health and Family Welfare, Bagalkot 2011-12.

5.7. Institutional Delivery

Reproductive health is one of the important dimensions of human development. It reflects the strength and capability for bearing and rearing healthy children. Institutional delivery, proper antenatal care and post natal care are important factors of reproductive health.

According to WHO (1994) from the view point of child survival and health of the mother the first priority for delivery care is that it is safe and clean. The majority of maternal deaths and much of the chronic morbidity resulting from childbirth are due to the failure to get timely help for complications at the delivery.

In respect of institutional delivery Bagalkot district has made remarkable progress (table-5.14). The percentage of institutional delivery is as high as 97.99 percent in 2011-12. The district is not much behind the target of 100 percent institutional delivery, which will substitute to achieve MDG-goal 5 improve maternal health. Taluk-wise institutional delivery details reveal that there is no much variation among taluks with regard to institutional delivery in Bagalkot district. Jamakhandi occupies 1st position with 99.29 percent institutional delivery, followed by Mudhol with 99.17 percent institutional delivery.

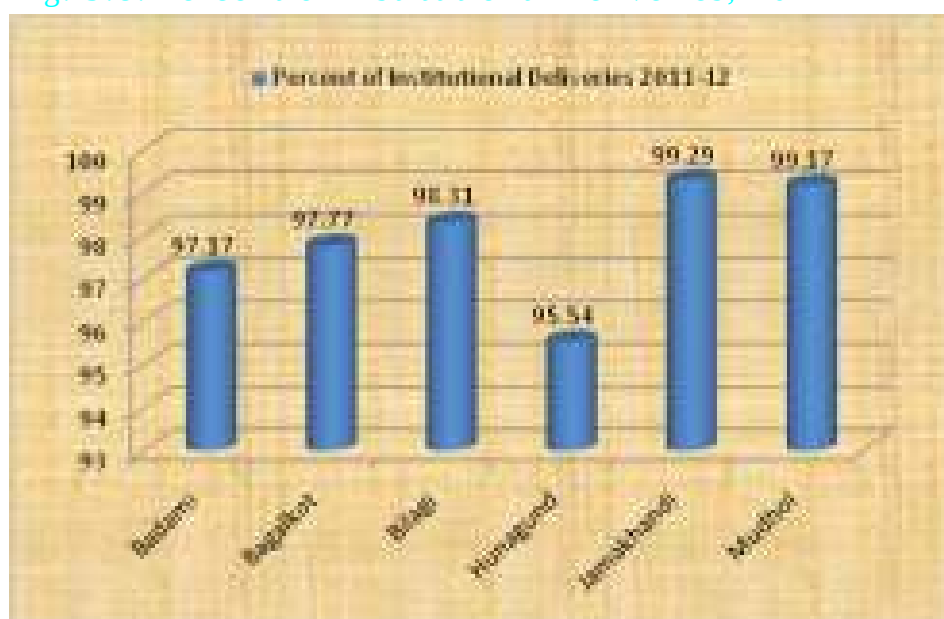
The percentage of institutional delivery is as high as 97.99 percent in 2011-12. The district is not much behind the target of 100 percent institutional delivery, which will substitute to achieve MDG-goal 5 improve maternal health.

Table 5.14: Institutional Deliveries in Bagalkot District from 2009-10 to 2011-12

Taluk	Percent of Institutional Deliveries		
	2009-10	2010-11	2011-12
Badami	93.46	95.26	97.17
Bagalkot	94.11	97.49	97.77
Bilagi	90.26	94.26	98.31
Hunagund	86.41	91.46	95.54
Jamakhandi	89.23	94.29	99.29
Mudhol	87.49	94.19	99.17
District	90.16	94.49	97.99

Source: Dept of Health and Family Welfare, Bagalkot 2009-10 to 2011-12.

Fig. 5.8: Percent of Institutional Deliveries, 2011-12



Bagalkot district has made considerable progress in respect to the immunization of children with 86 percent. There is a gradual increase in the immunization of children in Bagalkot district.

5.8: Immunization of Children

The immunization of children below 1 year against six serious but preventive diseases is a corner stone of child health care. In India, as part of national health policy the national immunization programme is implemented on priority basis.

Table 5.15 gives the details of immunization status among children in Bagalkot district. Bagalkot district has made considerable progress in respect

to the immunization of children with 86 percent. There is a gradual increase in the immunization of children in Bagalkot district. Bilagi and Bagalkot taluks have made remarkable progress in the immunization of children. Jamakhandi taluk also exceeds the district immunization rate. But there is a need to improve immunization status of children in the taluks of Badami and Hunagund and Mudhol which lags behind district immunization rate.

Table 5.15: Immunisation Status of Children 2010-11 and 2011-12

Taluk	Percentage of Children Immunized	
	2010-11	2011-12
Badami	77	78
Bagalkot	86	91
Bilagi	89	92.5
Hunagund	76	79.6
Jamakhundi	84	89.8
Mudhol	86	82.3
District	83	85.53

Source: Dept of Health and Family Welfare, Bagalkot 2010-11 and 2011-12

5.9 Under Weight Children

Table 5.16: Children Born Underweight for 2010-11 and 2011-12

Taluk	Children Born Underweight	
	2010-11	2011-12
Badami	12.96	8.93
Bagalkot	12.59	40.01
Bilagi	14.56	10.57
Hunagund	16.22	13.14
Jamakhundi	8.69	0.75
Mudhol	12.55	7.52
District	12.93	16.91

Source: Dept of Health and Family Welfare, Bagalkot and SRS 2010-11 and 2011-12.

Fig: 5.9: Children Born Underweight for 2011-12



The percentage of malnourished children is quite higher in Bagalkot district with 42.85 percent. Bagalkot taluk has highest percentage of malnourished children in the district with 46.39 percent, followed by Bilagi (43.49percent) and Hunagund (43.25percent). Jamakhandi, Mudhol and Badami have lower proportion of malnourished children than the district average.



Table 5.16 provides data on children who are born underweight for 2010-11 and 2011-12 in Bagalkot district. It is found that a vast majority of children born underweight are found in Bagalkot taluk, because Bagalkot has a district hospital which has specialized provisions including pediatric care, every body in the district come here for treatment. The complicated deliveries in the district are referred to district hospital. The lowest proportion of children born underweight is recorded in Jamakhandi taluk with 0.75 percent.

Percentage of children under age of five years is classified as malnourished according to three anthropometric indices of nutritional status, height-for-age, weights-for-height and weight for age. Table 5.17 depicts data of malnourished children in

Bagalkot district. The percentage of malnourished children is quite higher in Bagalkot district with 42.85 percent. Bagalkot taluk has highest percentage of malnourished children in the district with 46.39 percent, followed by Bilagi (43.49percent) and Hunagund (43.25percent). Jamakhandi, Mudhol and Badami have lower proportion of malnourished children than the district average. However, it is to be noted that the variation in percentage of malnourished children is not significant among different taluks.

5.10: Communicable Diseases

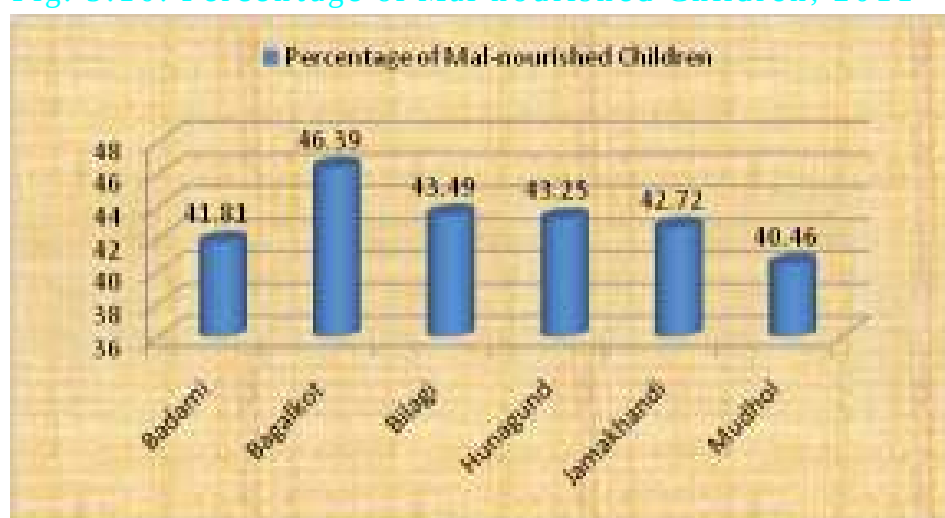
Though considerable achievements have been made, the goal of "Health for All by the Year 2000" has yet to be met even after 14

Table 5.17: Percentage of Mal-nourished Children, 2011

Taluk	Percentage of Mal-nourished Children (Excluding Normal)
Badami	41.81
Bagalkot	46.39
Bilagi	43.49
Hunagund	43.25
Jamakhandi	42.72
Mudhol	40.46
District	42.85

Source: Dept of Health and Family Welfare, Bagalkot 2011.

Fig: 5.10: Percentage of Mal-nourished Children, 2011



years of target. Lack of basic health services for the majority of the population, environmental degradation, total collapse of the health care machinery during any epidemic crisis and population, which has already crossed the one billion mark, are all challenges the country is facing after 60 years of planned development. Till date, the

diseases that have been eradicated in India are smallpox (in 1977) and guinea worm (in 2001) though there are many more in the agenda (polio, leprosy, yaws). Diseases like yaws and plague are under control. India is going through a period of transition both epidemiological and also demographical.



Table 5.18: Communicable Diseases from 2009 to 2011

Taluk	Communicable Diseases (in Percent)		
	2009	2010	2011
Badami	18	23	22
Bagalkot	11	14	13
Bilagi	13	8	10
Hunagund	14	6	14
Jamakhandi	12	14	11
Mudhol	16	12	14.62
District	84	77	14.10

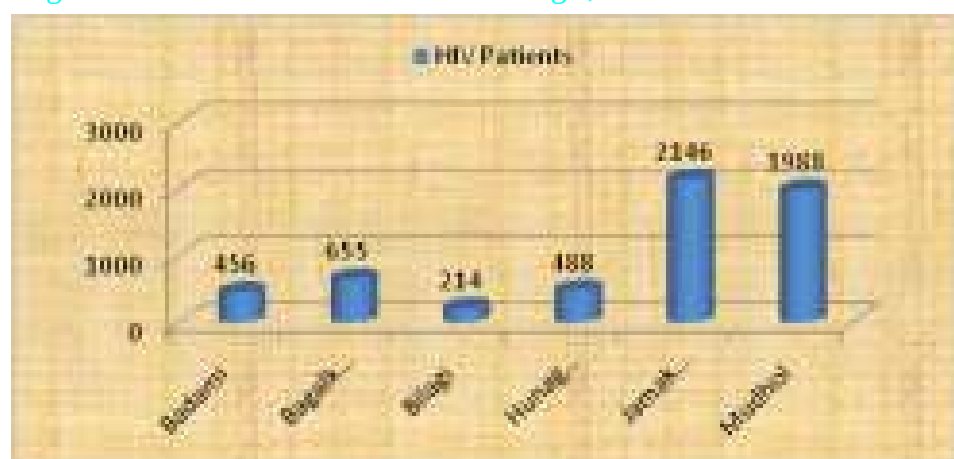
Source: Dept of Health and Family Welfare, Bagalkot 2009-11.

Table 5.19: HIV Patients for the Year, 2011-12

Taluk	2011-12	
	HIV Patients	Percent
Badami	456	0.13
Bagalkot	655	0.22
Bilagi	214	0.13
Hunagund	488	0.14
Jamakhandi	2146	0.44
Mudhol	1988	0.60
District	991	0.28
State	39527	0.06

Source: Dept of Health and Family Welfare, Bagalkot

Fig: 5.11: HIV Patients Percentage, 2011-12



It is found that the highest number of communicable diseases are reported in Badami (22 Percent) taluk in 2011. The lowest number of communicable diseases is recorded in Bilagi taluk (10 Percent), which is comparatively smaller taluk in the district.

The district has notorious record of having highest number of HIV patients in the state. Mudhol and Jamakhandi share major burden of HIV disease.

The details of communicable diseases in different taluks of Bagalkot are presented in table 5.18. It is found that the highest number of communicable diseases are reported in Badami (22 Percent) taluk in 2011. The lowest number of communicable diseases is recorded in Bilagi taluk (10 Percent), which is comparatively smaller taluk in the district.

HIV AIDS is one of the serious communicable diseases. The district has notorious record of having highest number of HIV patients in the state (Table 5.19). Mudhol and Jamakhandi share major burden of HIV disease. It is to be noted that Devadasi practice is rampant in Mudhol taluk.

5.11 Performance of Various Health Schemes

5.11.1 Accredited Social Health Activists (ASHA)

ASHA's have been trained and positioned to create awareness and provide information as well as counsel on the advantages of antenatal checkups and insti

tutional deliveries. Each ASHA is provided an incentive for bringing the pregnant woman for early antenatal registration as well as regular antenatal checkups. She is also provided an incentive to accompany the pregnant woman to the institution for delivery. This will assist in improving the coverage and quality of antenatal and post natal care.

ASHA scheme is implemented to improve reproductive health of pregnant women which is a tendency to provide antenatal care. The Government has spent rupees 122.23 lakhs for ASHA scheme in Bagalkot district for the year 2011. There are 1010 ASHA workers in Bagalkot district. The highest number of ASHA workers are found in Jamakhandi taluk (222) followed by Badami taluk (209). The lowest numbers of ASHA workers are found in Bilagi taluk with comparatively lower expenditure in the district. It is disheartening to note that expenditure on the scheme is decreasing in 2011 as compared to 2009.

Table 5.20: ASHA Scheme with Expenditure Incurred and Physical Achievements, 2009 to 2011

Taluk	2009		2010		2011	
	Expenditure incurred (in. Rs.)	Physical achievements	Expenditure incurred (in. Rs.)	Physical achievements	Expenditure incurred (in. Rs.)	Physical achievements
Badami	2337875	222	2103945	220	2183291	209
Bagalkot	1944565	142	1749990	138	1815988	134
Bilagi	1099630	101	989599	98	1026920	94
Hunagund	2256328	224	2030557	220	2107136	199
Jamakhandi	3222737	282	2900267	262	3009645	222
Mudhol	2235126	171	2004278	160	2079866	152
District	13096261	1142	11778635	1098	12222846	1010

Source: Dept of Health and Family Welfare, Bagalkot 2009-2011.

To reduce the MMR and IMR and to improve institutional deliveries, the Government of Karnataka has launched the programme on Maternal Health called “MADILU” on 1st October 2007. The aim of the MADILU programme is to provide a post-natal kit to the delivered mother, which contains the components for mother and the new born baby like bed-spreads, soaps and detergents etc. Mosquito nets are also supplied to the Malaria endemic districts. Beneficiaries of the scheme are BPL mothers who deliver in government hospitals and such benefits are restricted to first two live births.

Thayi card is a comprehensive antenatal registration booklet it encompasses all the mother and child health parameters from early ANC registration to post natal follow up, immunization of child and weight gain record etc. These cards help in pregnancy tracking and the immunization and growth of the child with provision for recording the disbursement of the money for Janani Suraksha Yojana/Prasuthi Aarika as well as disbursement of Madilu kits.

The details of Madilu scheme in Bagalkot district from 2009 to 2011 is provided in table 5.21. Totally 15525 kits are distributed to mothers during 2009 and 7970 kits in 2010 and 11042 kits during 2011. The highest number of madilu beneficiaries is found in Mudhol taluk (2431), followed by Bagalkot taluk (1944) and

Hunagund taluk (1899). The lowest Madilu beneficiaries are found in Bilagi taluk (1044), as it has lowest population in the district.

Table 5.22 presents the achievements made under Madilu scheme for the year 2012-13. It shows that totally 9663 kits are distributed with an expenditure of Rs.9247491. Mudhol taluk has incurred highest expenditure under Madilu scheme with Rs.1889118. The lowest expenditure is incurred in Bilagi taluk with Rs.1233573.

5.11.3 NRHM Scheme

The National Rural Health Mission (NRHM) launched by the Hon'ble Prime Minister on 12th April 2005 throughout the country seeks to provide accessible, affordable and quality health care services to rural population, especially the vulnerable sections. The NRHM operates as an omnibus broadband programme by integrating all vertical health programmes of the Departments of Health and Family Welfare including Reproductive and Child Health Programme and various disease control programme.

It can be observed from table 5.23 that the expenditure incurred under NRHM scheme in Bagalkot district is increased significantly from 2009 to 2011. Lowest expenditure is incurred in Bilgali taluk where as the highest expenditure under NRHM is recorded in Jamakhandi taluk.

The highest number of madilu beneficiaries is found in Mudhol taluk (2431), followed by Bagalkot taluk (1944) and Hunagund taluk (1899). The lowest Madilu beneficiaries are found in Bilagi taluk (1044), as it has lowest population in the district.



The NRHM operates as an omnibus broadband programme by integrating all vertical health programmes of the Departments of Health and Family Welfare including Reproductive and Child Health Programme and various disease control programme.

5.11.2 Madilu

Table 5.21: Madilu Scheme Physical Achievement, 2009 to 2011

Taluk	Madilu Scheme - Physical achievement		
	2009	2010	2011
Badami	2145	1477	1868
Bagalkot	2444	1892	1944
Bilagi	983	852	1044
Hunagund	3412	1230	1899
Jamakhandi	3493	1365	1856
Mudhol	3048	1154	2431
District	15525	7970	11042

Source: Dept of Health and Family Welfare, Bagalkot 2009 to 2011.

Table 5.22: Madilu Scheme Expenditure Incurred and Physical Achievements from 01-04-2012 to 31-03-2013

Taluk	Expenditure incurred (in Rs.)	Physical achievement
Badami	1318746	1378
Bagalkot	1423059	1487
Bilagi	1233573	1289
Hunagund	1712073	1789
Jamakhandi	1670922	1746
Mudhol	1889118	1974
District	9247491	9663

Source: Dept of Health and Family Welfare, Bagalkot 2012-13

Table 5.23: Expenditure Incurred Under NRHM Scheme from 2009 to 2011(in.Rs)

Taluk	Expenditure Incurred 2009	Expenditure Incurred 2010	Expenditure Incurred 2011
Badami	22930120.14	25151717	32541910
Bagalkot	19072496.04	20920345	27067257
Bilagi	10785280.33	11830218	15306227
Hunagund	22130294.6	24274400	31406816
Jamakhandi	31608940.27	34671389	44858696
Mudhol	21843885.62	23960242	31000350
District	128371017	140808309	182181256

Source: Dept of Health and Family Welfare, Bagalkot 2009 to 2011

Table 5.24: NRHM Scheme from 1-4-2012 to 31-3-2013

Taluk	Expenditure Incurred	Physical achievements
Badami	2325000	12 (PHC 9, CHC 3)
Bagalkot	1800000	7 (PHC 6, CHC 1, DH 1)
Bilagi	850000	4 (PHC 2, CHC 2)
Hunagund	3025000	16 (PHC 13, CHC 3)
Jamakhandi	1725000	9 (PHC 7, CHC 2)
Mudhol	1900000	10 (PHC 8, CHC 2)
District	11625000	Total 58 (PHC 45,CHC 13,DH 1)

Source: Dept of Health and Family Welfare, Bagalkot 2012-13



5.12: Per capita Health Expenditure

The per capita health expenditure in Bagalkot district is Rs.96.62 in 2011. There is a variation in expenditure on health care services in different taluks of Bagalkot district. Bilagi taluk is in first place with Rs. 146 as it has

comparatively less population. The second place goes to Jamakhandi taluk followed by Hunagund. The lowest per capita expenditure on health care service is found in Mudhol taluk and Badami taluk. There is a need for all concerned to make expenditure as per the set target with active participation.

Table 5.25: Per Capita Health Expenditure, 2011

Taluk	Per capita Health Expenditure (in Rs.)
Badami	119
Bagalkot	126
Bilagi	146
Hunagund	137
Jamakhandi	138
Mudhol	118
District	96.62

Source: Dept of Health and Family Welfare, Bagalkot 2011

5.13 Composite Health Index

Health index includes the indicators of MMR and CMR. The composite health index shows that Bagalkot, which is district headquarter, has occupied first rank, where as Badami is in the last position of health index due to their performance in the related indicators.

Fig. 5.12: Per capita Health Expenditure, 2011

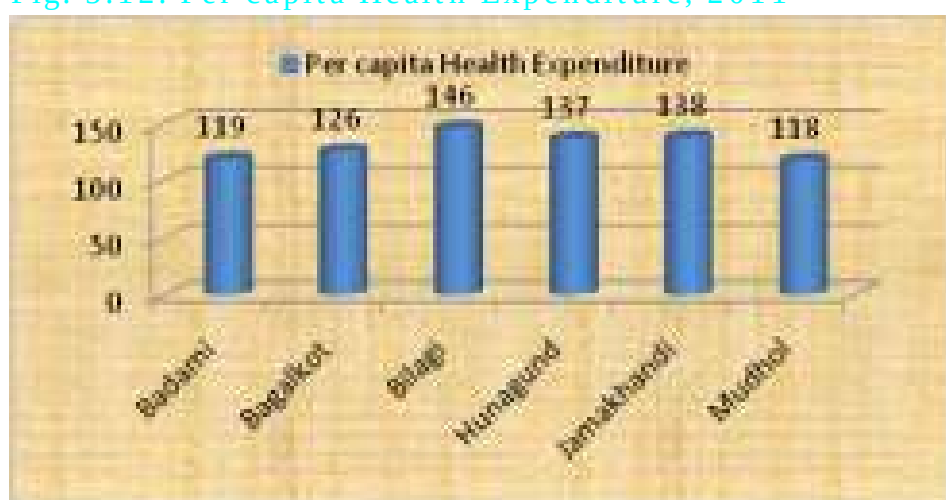


Table 5.26: Health Index of Bagalkot District

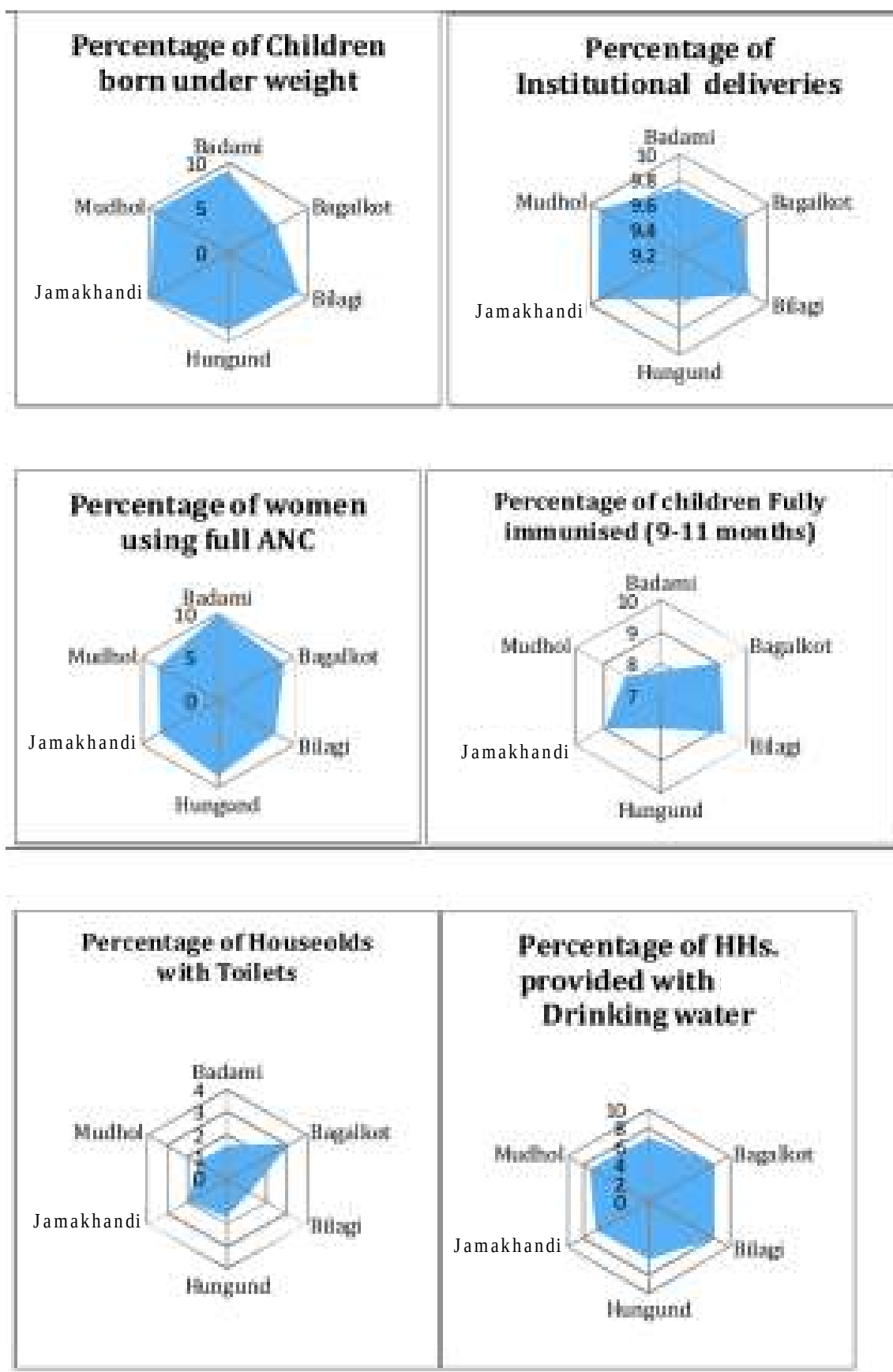
Taluk	Index Value	Rank
Badami	0.306	6
Bagalkot	0.935	1
Bilagi	0.347	4
Hunagund	0.345	5
Jamakhandi	0.480	3
Mudhol	0.620	2

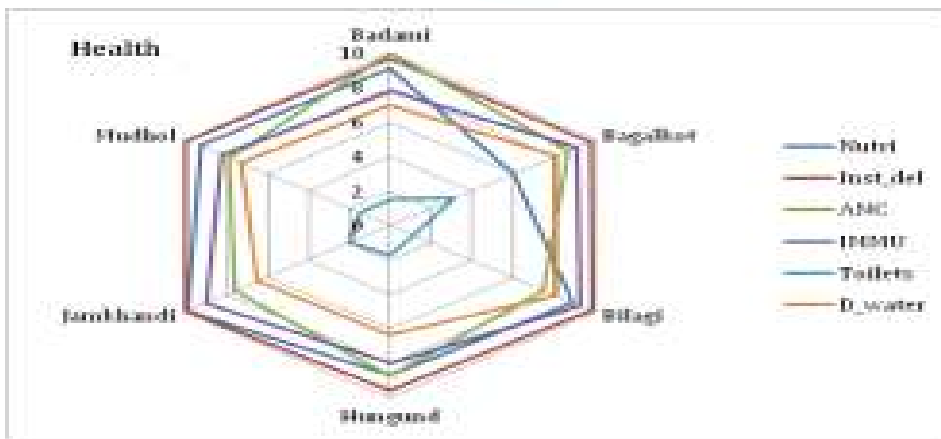
Fig. 5.13: Health Index of Bagalkot District



5.14 Radar Analysis for Health

Fig: 5.14 Radar on Health





The radar shows the health indicator of all the taluk in Bagalkot district. It comprises of six indicators namely nutrition, institutional delivery, ANC immunization of children, toilets and drinking water etc. which affect the quality of health of people. The radars reveal that Badami taluk has significantly high position in the health indicator in Bagalkot district, followed by Mudhol and Bilagi taluks respectively. However, Hunagund taluk is lagging behind in the health sector in Bagalkot district. Among the health indicators, institutional delivery is emerging as one of the most important parameters in the health indicator. The performance of the district in respect of toilets and drinking water is far from satisfactory.

5.15 Small Area Study

Awareness and attitudes among high school students about HIV/AIDS – a study

Introduction

Better health is considered as essential for every human being to lead happy and successful life. HIV/AIDS is a virus that affects and ends the human life in unbound time. Thus it has become a universal health issue. India is not free from this health hazard. In India the first case of HIV/AIDS was reported in 1986. Later, it was learnt that around 4 million people are suffering from

HIV/AIDS. India watched AIDS situation in Africa very closely and started taking precautionary steps. With the help of NGOs, foreign organizations, self-help groups the Government of India has organized many programmes to create awareness amongst people. It is normally argued that poverty, illiteracy, ignorance and lack of moral values are few reasons for the spread of HIV/AIDS. When we talk about Karnataka State, the northern part is more affected by HIV/AIDS, compared to other parts of Karnataka. The present study has been conducted with this background to understand the awareness about HIV/AIDS among High School students of four villages of Mudhol Taluk.

Objectives

1. To know the level of awareness about HIV/AIDS among students of High School.
2. To study the attitudes of High School students towards HIV/AIDS.

Methodology

The present study is empirical in nature. The study has been conducted at Kesaraguppa, Sanganatti, Sargaon and Mallali, the villages of Mudhol taluk of Bagalkot district. Fifty students in the age group 13-16 years studying in different high schools

of these villages were selected as sample on the basis of random sampling. A suitable questionnaire was developed to gather necessary data. The data is collected with the help of structured questionnaire. The data is analyzed on the basis of simple percentage.

Data Analyses

i) Socio-Economic Profile of Sample

This section presents the socio-economic profile of the students. The details of age, sex, size of family religion and economic status are discussed here.

Table 5.27 Socio-Economic Profile of Sample

Socio-Economic Profile	No	Percent
Age		
3-14 years	15	30
14-15 years	15	30
15-16 years	20	40
Total	50	100
Sex		
Female	22	44
Male	28	56
Total	50	100
Size of family		
1-5 years	20	40
6-10 years	16	32
11-20 years	14	28
Total	50	100
Religion		
Hindu	44	88
Muslim	06	12
Total	50	100
Occupation Status of father		
Agriculture	45	90
Service	2	4
Unorganized Workers	3	6
Total	50	100

Source: Field Study.

Table 5.27 presents the age structure of the sample. It shows that 40 percent of the sample hails from the age group of 15-16 years. The age group of 13-14 years and 14-15 years consist of 30 percent each. The sex wise distribution of respondent indicates that majority (56 percent) of them are males. The other 44 percent are females.

The data on size of family shows that 40 percent of the sample lives in small family i.e., with 1-5 members, 32 percent of the sample belongs to medium size (6-10 members) family and 28 percent of them live in large (11-20 members) family.

The observation of the religious composition of the sample makes it clear that major portion (88 percent) belongs to Hindu Community. Only 12 percent of the sample follows Muslim religion.

The occupational status of father reveals that, a large portion (90 percent) of respondents father's are engaged in agriculture. Only 4 percent are in service and other 6 percent are working in unorganized sector.

ii) Awareness of HIV/AIDS

This section provides the details of awareness of HIV/AIDS among the high school students. The data related to knowledge of HIV/AIDS and transmission of the disease are collected and analyzed in this section.

The study reveals that a vast majority of the students are aware of HIV/AIDS. Various programmes such as Kishori programme of the government provides knowledge of HIV/AIDS to the students in the schools. The students in the presents study are benefited by this scheme. The details of sources of information on HIV/AIDS shows that 54, percent of the students availed information of HIV/AIDS from the school and 16 percent from out of school, 4 percent each from parents and mass media. 14 percent of the students have received

information from various sources. A negligible portion (2 percent) of them received information from their friends. This clearly shows that mass media has played meager role in imparting knowledge of HIV/AIDS to the students. The school is playing a vital role in creating awareness about HIV and AIDS in the present study.

The data on knowledge about difference between HIV/AIDS indicates that only 14 percent of the students are aware of the difference between the two and 76 percent did not differentiate between two and 10 percent don't know about the difference in HIV/AIDS.

Table 5.28 enumerates the awareness of the students about transmission of HIV/AIDS. Majority (76 percent) of the students are aware that HIV/AIDS does not transmit with eating/ drinking in the same plates/cup. But 18 percent of them have wrong notion that HIV/AIDS spreads with eating and drinking in the same plate/cup. Small portions (6 percent) don't know about this. Similarly a large portion of sample are aware that HIV/AIDS does not transmit with shake hands/ hug/living in the same house (90 percent), wash /change clothes of HIV infected (94 percent), kissing (86 percent) and disease transmit by mother to child during pregnancy (80 percent).

Most of the students are aware that this disease transmits by sexual contact (96 percent) and sharing needle. It is significant to note that majority of the students have wrong notion that the disease spreads by breast feeding (86 percent). Only 10 percent of them have the right knowledge about breast feeding and HIV/AIDS transmission. The study shows that nearly half of the samples (46 percent) are aware that a mosquito does not transmit HIV/AIDS.

Table 5.28 Knowledge about the Transmission of HIV/AIDS
(Percentage in brackets)

Transmission of HIV/AIDS	Yes	No	Don't know	Total
Eating or drinking in the same plate/cup	09(18%)	38(76%)	03(06%)	50(100%)
Shake hands/hug/live in the same house	02(04%)	45(90%)	03(06%)	50(100%)
Wash/change clothes of HIV infected	01(02%)	47(94%)	02(04%)	50(100%)
Kissing	04(08%)	43(86%)	02(04%)	50(100%)
Have sexual contact	48(96%)	02(04%)	00(00%)	50(100%)
Share needles while injecting drugs	46(92%)	03(06%)	01(02%)	50(100%)
Breastfeeding	43(86%)	05(10%)	01(02%)	50(100%)
Mother to child during pregnancy	40(80%)	07(14%)	03(06%)	50(100%)
Mosquitoes	23(46%)	23(46%)	04(08%)	50(100%)

Source: Field Study.

Table 5.29 Attitudes towards HIV/AIDS

Attitudes towards HIV/AIDS	No.	Percent
Do you know anybody well who is HIV		
Yes	26	52
No	24	48
Total	50	100
How would you react if someone you know well would get HIV		
Avoid	13	26
Afraid of them	35	70
Not afraid of them	02	04
Total	50	100
Do you talk about HIV/AIDS in-		
School	11	22
Among Friends	37	74
Family	02	4
Total	50	100
Do you talk about Sex in-		
School	02	04
Among Friends	22	44
Family	00	00
Don't talk	31	62
Total	50	100
Would you like to learn about sex in school		
Yes	17	34
No	38	76
Total	50	100
Would you like to learn about HIV/AIDS in school		
Yes	42	84
No	08	16
Total	50	100

Source: Field Study.

The details of attitudes of students toward HIV/AIDS are recorded in table 5.29. It is observed that 52 percent of them know HIV/AIDS infected persons in their surroundings and nearly half (48percent) of them do not know person anybody with HIV/AIDS infection. It is to be noted that majority (70 percent) of them will be afraid, if a person whom they know well gets HIV/AIDS infected. And 26 percent of them avoid contact with such people and only 4 percent are not afraid of such people. This shows that although the students have proper knowledge of HIV/AIDS transmission, but in practice they are not able to accept HIV/AIDS infected people due to the existing negative attitude of the society.

Regarding talking about HIV/AIDS the students informed that, 74 percent talk among friends and 22 percent talk about it in the school and it is surprising to know that only 4 percent of them talk about HIV in the family. In the same way, majority (62 percent) don't talk about sex and 44 percent talk among friends, only 4 percent talk about it in the school.

Regarding sex education in the school, large portion (76 percent) do not want to learn sex education. It may because of taboos in the society. Only one third (34 percent) would like to have sex education. Most of the (84 percent) students would like to learn about HIV in the school.

Conclusion of the Small Area Study

The present study focuses on the awareness of HIV/AIDS among the high school students in Mudhol taluk. It is found that the respondents belong to the age group of 13-16 years, are males, belongs to small family, following Hindu religion and have agri cultural family back ground.

The respondents have better knowledge of HIV/AIDS, the major source of the information is school, but they are not able to differentiate between HIV and AIDS. The respondents are better informed regarding the transmission of HIV/AIDS, especially about eating /drinking, shaking hands/ wash/change clothe's, kissing and sharing needles. But they have misconception that it spreads by breast feeding and mosquitoes. They are well informed that HIV/AIDS transmit with sexual contact. However it is to be noted that in practice they are afraid of HIV/AIDS infected persons. Hence the students must be motivated in a proper way to accept HIV infected persons in the society. They must be educated to reduce the social stigma related to HIV/AIDS. Along with basic knowledge of transmission of HIV/AIDS, they must be provided training to change their mindset towards HIV/AIDS infected.

5.16 An Overview: Performance and Inadequacies of Health Care System

Better health is essential for overall development and human happiness in any society. Provision of good health care to the people is an essential component by the state to achieve human development.

Bilagi and Hunagund taluks have very high rate of IMR. Highest MMR is found in Badami and Jamakhandi taluks. Jamakhandi and Mudhol taluk need more serious actions in improving couple protection rate. Major health care providers in the district are private hospitals. The availability of health facilities is very less in the district. Population served by Primary Health Centre is higher in Bilagi taluk. ANC coverage in Bilagi and Jamakhandi taluk is poor. High proportion of anemia is prevalent in

Jamakhandi and Hunagund taluk. Effective implementation of nutrition programme by anganwadi centre is needed for tackling the problem of anemia among pregnant women. Remarkable improvement is made in institutional deliveries. Child immunization status is relatively poor in Badami and Hunagund taluk. Bagalkot taluk has very high proportion of underweight children as well as malnourished children. Cases of communicable diseases are higher in Badami taluk. Highest HIV/AIDS communicable diseases are found in the district, Mudhol and Jamakhandi taluk recorded higher HIV cases. The proportion of ASHA workers in Bilagi taluk is very low and it has lower beneficiaries in MADILU scheme. percapita

expenditure on health is lower in Mudhol and Badami taluk.

The health index of Bagalkot district shows significant variation across the taluk. Bagalkot taluk is far better than other taluks in health status. This regional disparity has to be brought down by special efforts. MMR and IMR need special attention to be reduced in the district. The dependence on private hospitals can be reduced by establishing more Government hospital and providing substantially health personnel in the district. HIV/AIDS patient's proportion is highest in the state which needs the creation of more awareness among the youngsters.

CHAPTER-6 INCOME, POVERTY AND EMPLOYMENT



CHAPTER 6

INCOME, POVERTY AND EMPLOYMENT

6.1 Introduction

Income and employment are closely related to each other. Income and employment are the integral parts of human development. Employment is a means of livelihood which means active participation in labour market. It is true that many people earn from the ownership of assets or share of companies without directly entering the labour market. However for majority of people labour earning is the chief source of livelihood. The availability of work, duration of work and facilities available at work affect human development. Employment is a source of income for many families in developing countries. Poor people generally work for long hours for low wages. They are not able to save anything. Mere employment cannot guarantee content life. A person living in extreme poverty can hardly afford to be unemployed, he has to work to survive.

Economic growth through poverty reduction is by no means a sufficient condition. An economy can grow without a reduction in the income poverty and vice-versa. The inter linkage between economic growth and poverty reduction works through various social sector outcomes which complement each other. For instance, higher educational attainment has a positive impact on the status of health. In turn, health is an input for educational attainment.

The present chapter makes an attempt to study role of income, poverty and employment in determining the human deve-

lopment in Bagalkot district. It analysis the income of taluk and district sector wise, per capita income, live stock, cropping pattern, land utilization. It throws light on employment structure like agriculture and non agricultural workers, total work participation rate, main and marginal workers. It focusses on poverty related aspects like BPL households with ration cards, MGNREGA, child labour, per capita food grain production etc.

6.2 District and Taluk Income

Gross District Domestic Product (GDDP) is one of the indicators used to measure human development status of the district. In the present study, GDDP is calculated for 2004 and 2009 at current prices for the district and its six taluks. The GDDP of Bagalkot district as tabulated in table 6.1 shows that it has almost doubled during 2009 as compared to 2004. The GDDP of Bagalkot district was Rs 326472 lakhs in 2004 and it has increased to Rs. 604015 lakhs in 2009.

Similarly the data on taluk wise Gross Taluk Domestic Product reveals that Bagalkot taluk ranks first with Rs.141269 lakhs, followed by Hunagund, Jamakhandi and Badami taluks. Bilagi taluk which was earlier considered as backward taluk by HPCFRRI, 2002 is now also in the last place. The taluk wise GDDP has increased in all taluks during 2004 to 2009. All the taluks registered a tremendous growth in income during the last five years.

Economic growth through poverty reduction is by no means a sufficient condition. An economy can grow without a reduction in the income poverty and vice-versa. The inter linkage between economic growth and poverty reduction works through various social sector outcomes which complement each other.

Taluk wise Gross Taluk Domestic Product reveals that Bagalkot taluk ranks first with Rs.141269 lakhs, followed by Hunagund, Jamakhandi and Badami taluks. Bilagi taluk which was earlier considered as backward taluk by HPCFRRI, 2002 is now also in the last place.

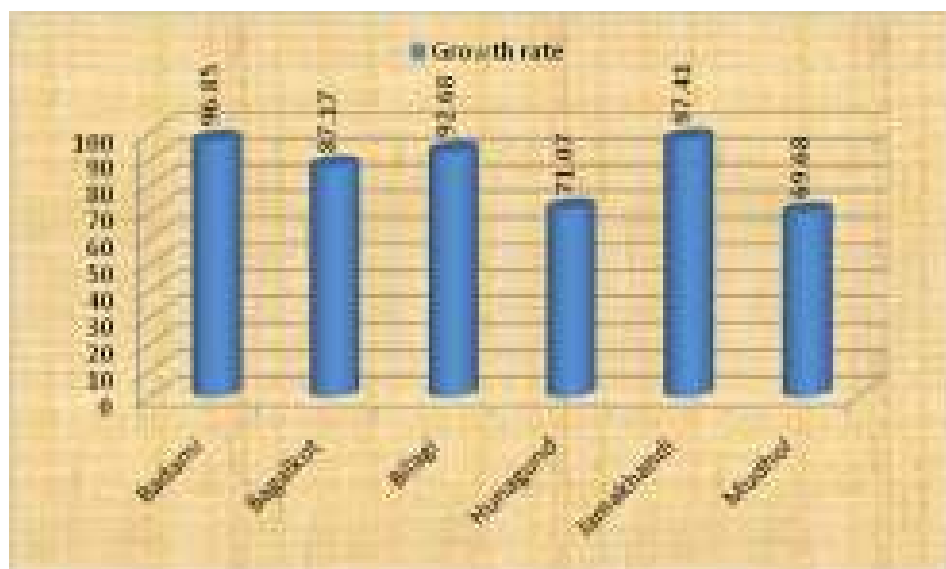
Table 6.1: District and Taluk Income 2004 and 2009 at current price

(Rs. in Lakhs)

Taluk / Zone	Total Domestic Product (GDTP)		
	2004	2009	Growth Rate
Badami	50749	99902	96.85
Bagalkot	75475	141269	87.17
Bilagi	30483	58734	92.68
Hunagund	67649	115685	71.07
Jamakhandi	53623	106142	97.41
Mudhol	48494	82283	69.68
District	326472	604015	85.01

Source: Directorate of Economics and Statistics, Government of Karnataka, Bengaluru.

Fig: 6.1: Taluk Income Growth rate



6.2.1 Sectoral composition of district and Taluk Income

Sectoral composition of district and taluk income includes mainly three sectors, namely primary

sector which includes agriculture and allied activities, secondary sector includes industries and manufacturing and tertiary comprises services like banking, commerce and other occupations.

Table 6.2: Sectoral Composition of Bagalkot District and Taluk Income 2004 and 2009

(Rs in lakhs)
(Figures in brackets are percentage)

Taluk / Zone	Primary Sector		Secondary Sector		Tertiary Sector	
	2004	2009	2004	2009	2004	2009
Badami	19081 (37.60)	3735 (37.37)	11577 (22.81)	21037 (21.06)	20091 (39.59)	41515 (41.56)
Bagalkot	17874 (23.68)	39930 (28.27)	15268 (20.23)	24198 (17.13)	42332 (56.9)	77141 (54.61)
Bilagi	11340 (37.20)	24800 (42.22)	5165 (16.94)	7751 (13.20)	13978 (45.86)	26183 (44.58)
Hunagund	26825 (39.65)	36553 (31.60)	18199 (26.90)	36466 (31.52)	22625 (33.44)	42666 (36.88)
Jamakhundi	10950 (20.42)	33081 (31.17)	16927 (31.57)	26720 (25.17)	25746 (48.01)	46341 (43.66)
Mudhol	1649 (34.01)	19830 (24.10)	12202 (25.16)	21356 (25.90)	19801 (40.83)	41096 (49.94)
District	102560 (31.41)	191544 (31.71)	69338 (21.24)	137528 (22.77)	144574 (44.28)	274942 (45.52)

Source: Directorate of Economics and Statistics, Government of Karnataka, Bengaluru.

The sectoral composition of district income as provided in table 6.2 depicts that the economy of Bagalkot district has moved very fast towards the tertiary sectors during the period from 2004 to 2009. The district picture of all the three sectors shows similar trend during the period the primary sector

consisting of agriculture and allied sectors occupies second place. The secondary sectors contribution to district income is lower than other two sectors. The taluk wise sectoral composition reveals the similar picture. Tertiary sector dominates the primary and secondary sectors in all the taluks.

6.2.2 Per capita Income

Table 6.3: Per-Capita Income of District and Taluk, 2011

Taluk	Gross Per - Capita income (in Rs.)
Badami	31223
Bagalkot	52125
Bilagi	37738
Hunagund	36765
Jamakhundi	32720
Mudhol	27282
District	33361
State	53101

Tertiary sector dominates the primary and secondary sectors in all the taluks.

Source: Directorate of Economics and Statistics, Government of Karnataka, Bengaluru.

Fig. 6.2: Per-Capita Income of District and Taluk, 2011



Bagalkot taluk stands at top place in per capita income in the district. Bilagi taluk is in second place because of its smaller population.

Jamakhandi, Mudhol and Bilagi taluks have highly irrigated lands. Hunagund taluk has the lowest irrigation facility for agriculture.

Table 6.3 provides the details of per capita income of all the taluks of Bagalkot district during 2011. The per capita income of Bagalkot district is Rs.33361/- in 2011. There is a significant variation in per capita income of different taluks in Bagalkot district.

Bagalkot taluk stands at top place in per capita income in the district. Bilagi taluk is in second place because of its smaller population. Hunagund and Jamakhandi are in third and fourth places respectively. Badami and Mudhol occupy the bottom places.

6.3: Agriculture, Cropping Pattern, Irrigation and Live Stock

6.3.1: Agriculture and Irrigation

Bagalkot is an agriculture based economy. The total area under agriculture in Bagalkot district is 477581 hectares. The highest proportion of land used for agriculture is found in Hunagund taluk and Jamakhandi taluk is in the second highest position.

The district has high irrigation potential. Krishna river is the major irrigation project in the district. It also gets canal irrigation facility from the dam. 59.48 percent of the land is irrigated in Bagalkot district. Jamakhandi, Mudhol and Bilagi taluks have highly irrigated lands. Hunagund taluk has the lowest irrigation facility for agriculture. Canal irrigation system is predominant in these taluks.

Table 6.4: Taluk-wise Land Utilization and Irrigation, 2011-12

Taluk	Net land Utilization (Area in Hect)	Percent	Net land Irrigated (Area in Hect)	Percent
Badami	90116	18.87	43226	15.21
Bagalkot	65940	13.81	29103	10.24
Bilagi	38879	8.14	39597	13.94
Hunagund	108971	22.82	13864	4.88
Jamakhandi	93314	19.54	85779	30.20
Mudhol	80361	16.83	72503	25.52
District	477581	100	284072	100

Source: Bagalkot District At A Glance, 2011 -12.

6.3.2: Cropping Pattern, Major crops

Cropping pattern refers to proportion of area under various crops. Cropping pattern of Bagalkot reveals that 252480 hectares of area is meant for cereals. Millets, Jowar, Maize, Bajra and Wheat are the major cereals of the district. Pulses cover an area of 1,29,106 hectares in the district.

It includes mainly red gram and Bengal gram. Commercial crop is grown in 1,18,080 hectares of land which includes sugarcane and cotton. The area devoted for oil seeds like sunflower, groundnut accounts for 80201 hectares of land in Bagalkot district. A total of 22460 hectares land is devoted for vegetables and 5789 hectares for fruits in the district.



Table 6.5: Principle Crops of District (Area in Hect), 2011-12

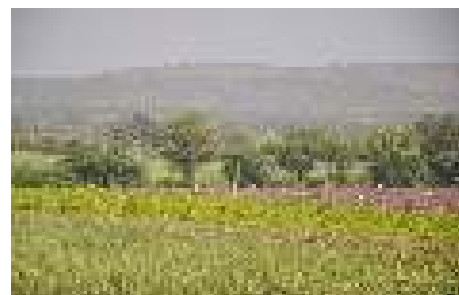
Taluk	Cereals and Minor Millets	Pulses	Oil Seeds	Commercial Crops	Fruits	Vegetables
Badami	67012 (26.54)	23073 (17.78)	19074 (23.78)	6934 (5.87)	466 (8.05)	3625 (16.14)
Bagalkot	34991 (13.86)	22442 (17.38)	10782 (13.44)	4667 (3.95)	2559 (44.20)	5837 (25.99)
Bilagi	23778 (9.42)	3810 (2.95)	4202 (5.24)	15867 (13.44)	555 (9.59)	2766 (12.32)
Hunagund	52012 (20.60)	65265 (50.55)	31158 (38.85)	1092 (0.92)	139 (2.40)	6801 (30.28)
Jamakhandi	42301 (16.75)	7641 (5.92)	6742 (8.41)	45986 (38.94)	898 (15.51)	1108 (4.93)
Mudhol	32386 (12.83)	6875 (5.32)	8243 (10.28)	43534 (36.87)	1172 (20.24)	2323 (10.34)
District	252480 (100)	129106 (100)	80201 (100)	118080 (100)	5789 (100)	22460 (100)

Source: Bagalkot District At A Glance, 2011 -12.

Table 6.6: Taluk-wise Cropping Intensity (in Percent), 2011-12

Taluk	Cropping Intensity
Badami	130.19
Bagalkot	113.34
Bilagi	97.65
Hunagund	139.65
Jamakhandi	113.43
Mudhol	117.17
District	129.05

Source: Bagalkot District At A Glance, 2011 -12



The data on cropping intensity helps us to understand qualitative aspect of agrarian land use. Table 6.6 summarizes the details of cropping intensity of Bagalkot District for 2011-12. Cropping intensity for the district is 129.05. The district is allowed to have 29.05 percent area under double cropping. Hunagund taluk is the best performer in terms of cropping intensity with 139.65 percent. Bilagi taluk is the worst performer in the cropping intensity. Badami taluk has recorded better cropping intensity as compared to district level. Mudhol, Jamakhadi, Bagalkot

taluks have lower cropping intensity than the district level.

6.3.3 Per capita Food Grain Production

The per capita food grain production in Bagalkot district is 257 Kg. Hunagund taluk has occupied first place in terms of per capita food grain production with 419 kg, followed by Badami taluk with 353 Kg. Per capita food grain production is significantly lesser in Mudhol and Jamakhadi taluks because of the major problem that the cultivated land is devoted for commercial crops in these taluks.

Hunagund taluk has occupied first place in terms of per capita food grain production with 419 kg, followed by Badami taluk with 353 Kg.

Table: 6.7: Per Capita Food Grain Production of District (in KGs) in Bagalkot District, 2011-12

Taluk	Per capita Food Grain (in KGs)
Badami	353
Bagalkot	275
Bilagi	217
Hunagund	419
Jamakhadi	159
Mudhol	164
District	257

Source: Joint Director, Agriculture Dept, Bagalkot 2011-12.

Fig: 6.3: Per Capita Food Grain Production of District (in KGs) in Bagalkot District, 2011-12



6.3.4 Irrigation Source and Intensity

The irrigation potential of the district is high. The total land irrigated in the district is about 2,84,072 hectares. The UKP and barrage across, Krishna rivers are major irrigation projects in the district. The district also gets canal irrigation facility from dams built in neighboring district of Belagavi. The canal irrigation facility covers about 57,775

hectares. The Canal irrigation system is predominant in Jamakhandi, Mudhol and Bilagi taluks. The Total area irrigated by tubewells is 97,854 hectares. Well irrigation is also quite popular in the district and provides irrigational facilities to nearly 9,850 hectares. The Irrigation facility by other Source covers 1,14,939 hectares in the district.



Table 6.8: Irrigation Intensity of Bagalkot District, 2011-12

Taluk	Irrigation Intensity
Badami	107.64
Bagalkot	111.6
Bilagi	108.62
Hunagund	125.77
Jamakhandi	103.59
Mudhol	107.6
District	107.83

Source: Bagalkot District At A Glance, 2011 -12

The irrigation intensity of various taluks in the district presented in table 6.8 delineates that the district has 107.83 percent irrigation intensity. Hunagund taluk has recorded highest irrigation intensity in the district with 125.77. Because the taluk touches Malaprabha river on south and Krishna on the northern boundary. Krishna and Malaprabha meets at historical place, Kudalasangam of the taluk. Malaprabha is a seasonal river. Krishna is a perennial river. Bagalkot and Bilagi taluk has higher irrigation intensity than the district level. Jamakhandi

taluk has lowest irrigation intensity.

6.3.5 Live Stock

Live stock is another source of livelihood for people especially in rural areas, where livelihood opportunities are limited. Live stocks are generally raised for profit. Raising animals is a component of modern agriculture. It provides subsistence to families. Dairy products like milk curds, ghee and butter can also be used for domestic purpose. Hence livestock population in various taluks of Bagalkot district has been studied as an income generating activity.

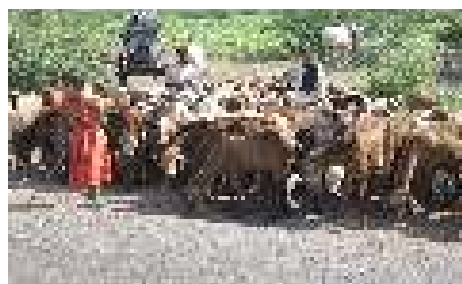
The canal irrigation facility covers about 57,775 hectares. The Canal irrigation system is predominant in Jamakhandi, Mudhol and Bilagi taluks. The Total area irrigated by tubewells is 97,854 hectares. Well irrigation is also quite popular in the district and provides irrigational facilities to nearly 9,850 hectares. The Irrigation facility by other Source covers 1,14,939 hectares in the district.

Table 6.9: Livestock in the District, 2002 and 2007

Taluk	Live stock	
	2002	2007
Badami	372207	524551
Bagalkot	144032	191030
Bilagi	105831	154727
Hunagund	212681	339510
Jamakhandi	205355	283959
Mudhol	165112	253893
District	1205218	1747670

Source: Live stock census, DD Dept. of Animal Husbandry Veterinary Services, 2002 and 2007.





Live stock census was conducted in 2002 and 2007. The data of both censuses is presented in table 6.9. Live stock in Bagalkot district has increased significantly between 2002 and 2007. The increase is by about 5 lakhs. Taluk wise distribution of live stock reveals that Badami ranks first in both censuses, Hunagund is in second place and Jamakhandi in third place. Bilagi has lowest livestock population.

6.4 Below Poverty Line Households, MGNREGA

6.4.1: BPL card holders

Below poverty line (BPL) is an economic benchmark and poverty threshold used by the Government of India to indicate economic disadvantaged. It identifies individuals and households in need of Government assistance

and aid. It is determined by using various parameters which vary from state to state and within states.

The poverty line was originally fixed in terms of income and food requirements in 1978. The poverty line in 2005-06 was Rs.368/- per month, per head in rural areas and Rs.560/- for urban areas. This income is hardly sufficient minimum to support the food requirements and does not provide much for the other basic necessities like health, education etc. This income is calculated on the basis of standard of required calorie for individuals. The standard calorie in rural areas was 2400 and 2100 in urban areas. The cost of grains that fulfill this normative standard was calculated.

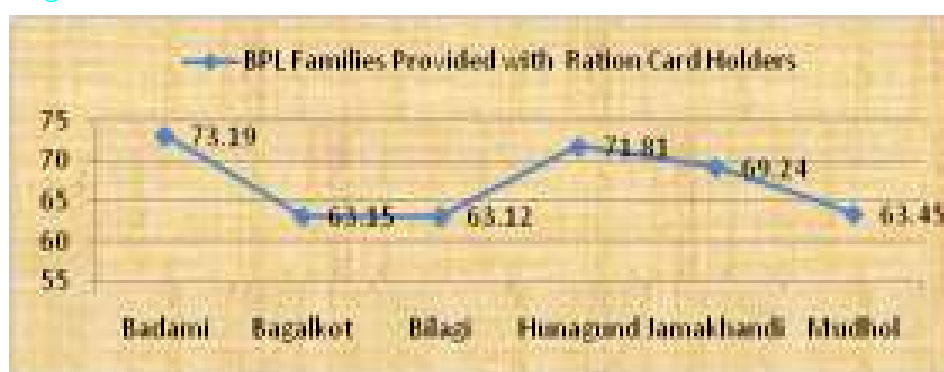
Live stock in Bagalkot district has increased significantly between 2002 and 2007. The increase is by about 5 lakhs. Taluk wise distribution of live stock reveals that Badami ranks first in both censuses, Hunagund is in second place

Table 6.10: BPL Card Holders, 2011-12

Taluk	BPL Families provided with Ration Cards (in percent)
Badami	73.19
Bagalkot	63.15
Bilagi	63.12
Hunagund	71.81
Jamakhandi	69.24
Mudhol	63.45
District	67.92

Source: Bagalkot District At A Glance, 2011 -12

Fig: 6.4: BPL Card Holders, 2011-12



The Government of India has undertaken several poverty alleviation Programmes. These Programmes are designed for generation of both self employment and wage employment in rural areas. SGSY, MGNREGA, JRY, Providing rural housing ration cards etc. are a few of poverty alleviation programmes being implemented by the government.

Table 6.10 explains the taluk wise BPL card holders in Bagalkot district. 67.92 percent households in the district are provided with BPL cards. Badami taluk has issued highest numbers of cards to BPL families, i.e. 73.19 percent, followed by Hunagund taluk with 71.81 percent. The lowest numbers of BPL families provided with cards are found in Bilagi,

Bagalkot and Mudhol taluks. The proportion of poor people living in these taluks is relatively low.

6.4.2 MGNREGA

MGNREGA Programme is implemented by Ministry of Rural Development Government of India. On 25th August 2005 National Rural Employment Guarantee Act was enacted in Parliament to provide the most accessible approach to rural poverty alleviation through employment generation. On 2nd October 2009 it was renamed as Mahatma Gandhi National Rural Employment Guarantee Act. It aims for providing employment for an individual at least for 100 days in a year.

67.92 percent households in the district are provided with BPL cards. Badami taluk has issued highest numbers of cards to BPL families, i.e. 73.19 percent, followed by Hunagund taluk with 71.81 percent.

Table 6.11: Households Provided with Employment under MGNREGA, 2011-12

Taluk	Number of Household issued Job Cards	Household demanded employment	Number of Households provided Employment	Percentage of Households provided Employment
Badami	43314	14768	14752	34.05
Bagalkot	27302	8946	8905	32.49
Bilagi	19432	5835	5822	29.91
Hunagund	32217	12213	12178	37.75
Jamakhandi	46546	17887	17852	38.09
Mudhol	30914	13163	13031	42.15
District	199725	72812	72540	36.23

Source: Bagalkot District At A Glance, 2011 -12

Fig: 6.5: Percentage of Households Provide Employment under MGNREGA, 2011-12

