

## **A Geographical analysis of Gender Parity Index in Mysore Division**

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### **Abstract**

Education is one of the most important tools in overall development of a country. It ensures the growth of the country. More emphasis has been given for the development of education in recent decades. Sustainable Development Goals adopted by UNO aims the balance in Socio, Economic and Environmental Sustainability. Gender equality is one among the Sustainable Development Goals. Gender Parity Index is one of the parameter used to understand the ratio of female students to male students in different levels of education. Here an attempt has been made to understand the situation of Gender Parity Index and Literacy rate in various districts of Mysore Division for a period of two decades. Choropleth maps and simple statistical tools are used for analysis purpose.

**Key words:** Sustainable Development Goals, Gender Equality, Gender Enrolment Ratio, Gender Parity Index.

**Introduction:** Women play a significant role in the sustainable development of a country. Education of females plays a major impact on the prosperity of a family as well as a country. The education of a girl is the education of a family, which influences on present and future generations. So education has a crucial role in balancing socio-economic conditions of a nation. The level of education is not only a reflection of the level of development of a society but also the growth and modernization of the society. Sustainable Development Goals (SDG's) adopted by UNO in 2015 aims, the balance in social, economic and environmental sustainability. Gender equality is one among these goals. Gender Parity Index is one of the methods to assess the conditions of females of a region. It is the ratio of the number of female students enrolled at primary, secondary and tertiary levels of education to the corresponding number of male students in each level. In recent decades Women have entered tertiary education and formal employment. The global gender gap index shows that gender gap in professional roles is narrowing in the world.

**Study Area:** Among four administrative divisions of the state, Mysore division is one among them. It is located in south and south-western parts of our state. The division covers an area of 43,473 km<sup>2</sup> which accounts 22.67% of total area of the state. It has eight districts like Chikkamagalur, Dakshina

Kannada, Udupi, Hassan, Kodagu, Mandya, Mysuru and Chamarajanagara. It has 20.55% of population of the state (2011) and consist 44 taluks. Bangalore division is found in the east of this region and Belagaum division in the north. Udupi and Dakshina Kannada districts are in coastal region. We can observe that windward and leeward side of Western Ghats are found in this region.

**Objectives:** The main objectives of this paper are –

1. To understand the Population growth, Literacy, Child and General sex ratio of the study area.
2. To know about spatio and temporal variations in Gender Parity Index in various districts of the study region.

**Methodology:** The study is based on secondary data. It has been collected from different sources like Census of India, Department of Economics and Statistics Government of Karnataka, Journals, reports of UNO and Ministry of Human Resource Development and others. By using Gross Enrolment Ratio, Gender Parity Index has been calculated here. Simple statistical tools and Choropleth maps are used for analysis purpose.

**Discussion:** It is very essential to understand some basics of demographical aspects in the study region. Demographic aspects like Growth rate of Population, Sex Ratio and Literacy rate have been studied first. Because they are influenced by various socio-economic aspects of the people of this region. Table-1 shows that from 1991, the growth rate of population is continuously decreasing in all most all the districts. It was 15.97% in the division in 1991 and it is further reduced to 6.55% in 2011. Chikkamagaluru district has recorded a negative growth (-0.28%). The districts like Kodagu, Mandya, Hassan, Chamarajanagara and Udupi have less than the average population growth rate of Mysore division. Mysuru district has recorded highest growth rate of population during 2011. Because it has the largest populated Mysore city of the region. Here general sex ratio and child sex ratio has been studied for three decades. Because these two also influences on the status of women. Except in Kodagu district, in all other districts the child sex ratio is in declining trend. In the entire division, it has been reduced from 966 to 958 girls for 1000 boys. Mandya has lowest (934) and Kodagu district has highest (977) child sex ratio in the study region in 2011 census. The general sex ratio has been declined from 992 to 964 females per 1000 males during 1991 to 2001. But it increased to 1010 in the next decade. Chikkamagaluru, Dakshina Kannada, Udupi, Hassan and Kodagu districts have more females than males. Mysuru district has lowest (982 females per 1000 males) sex ratio in the region. It is very important to note that except Dakshina Kannada and Udupi districts, in all other districts the sex ratio has been increased from 1991 onwards. This can be observed in table-1.

Literacy is another important parameter to assess the socio-economic conditions of women in any region. In 1991 the literacy rate in the region was 58.5% and increased to 69.24% in 2001 which

further enhanced to 76.9% in 2011. More than 50% of women were illiterate in 1991. It is most important that the female literacy has been increased by 21% between 1991 to 2011 compared to male literacy (15%). It is a healthy sign in the region. But Chamarajanagara district has lowest female literacy rate (54.32%) in this region. It was 28.6% in 1991 and increased about 25.72% in next two decades. Whereas highest is found in Dakshina Kannada (84.04%) district. Mandya, Hassan and Mysuru districts have less female literacy rate compared to the division's average literacy rate. Except Mandya, Mysuru and Chamarajanagara districts, all other districts have more literacy than the average literacy rate in the region. Dakshina Kannada (93.31%) and Udupi (91.69%) have registered highest male literacy rate in the region.

**Table-1**  
**Demographic aspects in Districts of Mysore Division (1991 to 2011)**

Sl. No	District	Year	Population Growth rate (%)	Child Sex Ratio	Literacy rate (%)			General Sex Ratio
					Male	Female	Total	
1	Chikkamagaluru	1991	11.57	978	70.6	51.3	61	977
		2001	12.15	959	80.29	64.01	72.2	984
		2011	-0.28	963	85.66	72.88	79.24	1005
2	Dakshinakannada	1991	15.98	966	84.8	68.7	76.7	1020
		2001	14.59	952	89.7	77.21	83.35	1022
		2011	9.8	946	93.31	84.04	88.62	1018
3	Udupi	1991	9.42	966	83.7	66.8	74.6	1134
		2001	7.14	958	88.23	75.19	81.25	1130
		2011	5.9	955	91.69	81.41	86.29	1093
4	Hassan	1991	15.67	967	68.9	44.9	56.9	999
		2001	9.68	958	78.37	59	68.63	1004
		2011	3.17	964	83.55	68.3	75.89	1005
5	Kodagu	1991	5.75	957	75.4	61.2	68.3	979
		2001	12.31	977	83.7	72.26	77.99	996
		2011	1.13	977	87.24	77.91	82.52	1019
6	Mandya	1991	15.96	959	59.2	36.7	48.1	963
		2001	7.26	934	70.5	51.53	61.05	986
		2011	2.55	934	78.14	62.1	70.14	989
7	Mysuru	1991	24.84	966	59.7	41.6	50.9	953
		2001	15.75	962	70.88	55.81	63.48	964
		2011	13.39	956	78.44	66.59	72.56	982
8	Chamarajanagara	1991	14.99	966	47.3	28.6	38.2	953
		2001	9.29	964	59.03	42.48	50.87	971
		2011	5.75	942	67.88	54.32	61.12	989
MYSORE DIVISION		1991	15.97	966	67.8	49.1	58.5	992
		2001	11.46	956	76.98	61.57	69.24	964
		2011	6.55	958	82.91	70.98	76.9	1010

**Source:** Primary Census Abstracts (1991,2001 & 2011), Karnataka & personal computation.

Gender Parity Index (GPI) is a socio-economic Index designed to measure the relative access to education of males and females. As already stated, it is the ratio of number of girls to number of boys in primary, secondary and tertiary education. It is based on Gross Enrolment Ratio which is free from the effects of the population structure of the appropriate age group and provides picture of gender equality in education (MHRD). Gender Parity Index is the ratio of the number of female students enrolled at primary, secondary and tertiary levels of education to the number of male students in each level (UNESCO). It has been calculated by dividing the female Gross Enrolment Ratio by the male Gross Enrolment Ratio for the given level of education (UNESCO). When the value of GPI is 1, it indicates equality between the boys and girls; when its value varies between 0 to 1, it means a disparity in favour of males and if it is greater than 1 it shows a disparity in favour of females.

Gross Enrolment Ratio for a class group is the ratio of the number of persons in class-group to the number of persons in the corresponding official age-group (MHRD).

The spatial and temporal pattern of Gender Parity Index in the study region can be observed in table -2.

Table-2  
**Spatial and Temporal pattern of Gender Parity Index (GPI) in Mysuru Division.**

Sl No	Districts	Year	Primary (1-7th Std)	Secondary (8 to 10th Std)	Pre university College	First Grade College
1	Chikkamagaluru	2004-05	0.96	1.04	1.14	1.07
		2016-17	0.97	1.00	1.28	1.42
2	Dakshinakannada	2004-05	0.95	0.78	1.01	1.36
		2016-17	0.97	0.98	1.06	2.22
3	Udupi	2004-05	0.94	0.91	0.93	1.16
		2016-17	0.96	0.98	1.10	1.97
4	Hassan	2004-05	0.97	1.02	1.11	0.98
		2016-17	0.99	1.00	1.39	1.71
5	Kodagu	2004-05	0.96	1.16	1.86	1.10
		2016-17	0.97	0.99	1.36	1.21
6	Mandya	2004-05	0.97	1.02	1.11	0.89
		2016-17	0.97	0.99	1.48	2.01
7	Mysuru	2004-05	0.94	4.27	0.93	1.22
		2016-17	0.98	1.01	1.25	1.93
8	Chamarajanagara	2004-05	0.96	0.99	0.87	1.22
		2016-17	0.62	1.06	1.16	1.18
<b>MYSORE DIVISION</b>		2004-05	0.95	1.31	1.04	1.16

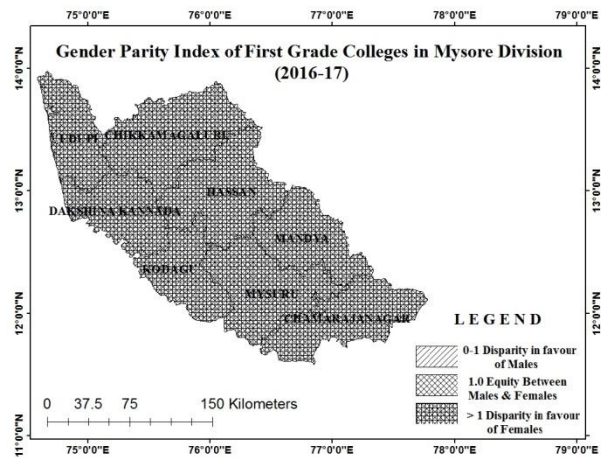
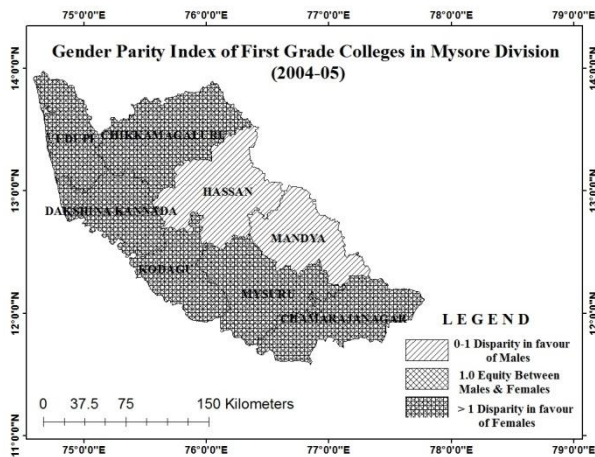
	2016-17	0.95	1.00	1.22	1.29
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**Source:** Karnataka at a Glance & personal computation

Here to understand the spatial pattern of Gender Parity Index, Primary schools to First Grade colleges are taken into consideration. As we observe in table-1, the growth rate of population is in declining trend from 1991 in all the districts and also Child sex ratio is in the same pattern. Hence the population between the age group 7 to 18 year is less in 2011 census compared to 2001. The Gross enrolment ratio in the study region among boys in primary education was 93.28% in 2001 and it increased to 99.18% during 2016-17. It is also increased in girls education during the same period (88.97% to 93.97%). Dakshina Kannada, Udupi and Mysuru districts have registered more than 100% in female Gross enrolment ratio in the region. The increasing trend has been observed in secondary education also. Whereas in Pre-university the Gross Enrolment Ratio of females has increased significantly in the region from 34.32% to 52.93%. The same trend is observed in all the districts of the region. In Undergraduate education (General education) also the same trend has been observed in female Gross Enrolment Ratio. It has been increased from 12.17% to 21.52% which shows more emphasis has been given to female education.

In Primary education, the Gender Parity Index is almost nearer to 1 which shows that there is almost uniformity in Primary education. In 2004-05 there is a disparity in favour of females during this period and it improved in 2016-17. There is an equivalence of males and females in Secondary education during 2016-17. It is found in almost all the districts. In Pre-university education, Gender Parity Index was 1.04 in 2004-05 and increased to 1.22 which shows that disparity is found in favour of females. It is observed that wherever female literacy is more the disparity is less in females. In General education, the Gross enrolment ratio among females has increased by nearly 80% during this period compared to males (17%). It is observed that the number of students joining to general education decreased in Dakshina Kannada district (from 20200 to 18073), especially more among males. In Mandya, Udupi, Mysuru and Dakshina Kannada districts disparity is found in favour of females. The changes in First Grade colleges has been depicted in Figure-1.

**Figure-1**



**Findings and Conclusion:** The study has been carried out for two time periods like 2004-05 and 2016-17. It is observed that the population growth rate is declining in all the districts of the region and literacy rate has been increasing from 1991 to 2011. Most important is there is a significant increase in female literacy in all the districts of the region during this period. Chikkamagaluru, Dakshina Kannada, Udupi, Hassan and Kodagu districts have more female population than male population. But the child sex ratio is in declining trend in the region. It is an unhealthy sign in the region. We have to reduce the declining trend of Child Sex ratio in the region.

The Gross Enrolment Ratio among males and females are increasing in all the districts of the region, especially among females. It shows that more emphasis has been given for female education. In Primary and Secondary education GPI is nearer to 1, but there is a slight disparity in favour of females in Pre-university and General Education. Further, we have to give more importance for female education especially after Pre-university education. Females should be encouraged to study in higher education also.

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