

A Study on Social Infrastructure and Human Development in Karnataka

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ABSTRACT

Social infrastructure, which basically refers to infrastructure or assets that support social services and substantially contribute to human development while fostering economic progress, includes examples such as education, health, medical care, nutrition, water supply, and housing. By implementing focused programs with substantial financial support, Karnataka has made rapid progress in providing social infrastructure and contributed to the multifaceted human development of the state. Human Development Index and other ratios are used to assess human development. Karnataka performs well on important multidimensional measures of human development as defined by the Human Development Index, thanks to the state's social infrastructure. From 1981 to 2012, the state's human development index rank was maintained between sixth and tenth compared to other Indian states. A comparison of HDI values and district rankings in the three Human Development Reports of Karnataka (1991, 2001 and 2012) shows that 21 of the 27 districts in the state show sustained development, while 6 districts, mainly in Karnataka, show sustained development. A decrease in the values and classifications of the Human Development Index. Raichur, Kalburgi, Koppal, Bellary, and Chitradurga districts were among the lowest five in the state's districts' HDI rankings in 2012, underscoring the need for more initiatives to speed up human development in the Kalyana-Karnataka area. Bangalore Urban, Dakshina Kannada, Udupi, Kodagu, and Shivamuga were the top five districts in 2001.

KEYWORDS: Social, Infrastructure, Karnataka, performance, Human Development,

I INTRODUCTION

According to Global Goals indicators, Karnataka is classified as a country with an average level of human development, but there are regional differences in terms of poverty, gender inequality and other aspects of human development. Karnataka's performance from 2015–16 to 2020–21 as measured by the following ratios: Ratios of public spending, allocation of resources, social priorities, and expenditure on people and Social sector indicators spending fell from 8.03% of GSDP in 2015-16 to 5.10% in 2020-21. Karnataka maintained health and family welfare expenditure at 1% of GSDP from 2017-18 to 2021-2022. BWSSB (27.1%), health (11.3%), medical education (10.1%), nutrition (8.1%), KUWSDB (6%), and rural water supply (5.6%) had the greatest increases in government funding. The health industry, however, had annual growth of 7.5% over that time.

II Social infrastructure and human development in Karnataka Social infrastructure:

Housing, education, health and medical treatment, nutrition, and water supply are all examples of social services that benefit both human development and economic progress, and they are the primary focus of this term. Human development model interventions, which focus on improving people's lives rather than assuming that economic growth would inevitably improve conditions for everyone, depend on these spheres functioning well. The United Nations Development Programme argues that a new emphasis on health,

education, and quality of life is necessary because the human development approach places a big emphasis on individuals and their skills and choices. The state government of Karnataka is committed to establishing plans and policies that provide people the best possible shot at living a long, healthy, and fruitful life, according to those people. It fits with commonly held beliefs that social infrastructure aids in human development. Recent reports have shown inequities in social infrastructure among regions and communities, but the country has adopted inventive plans and activities to help overcome perceived gaps. Through the implementation of centralized initiatives funded by substantial state resources, rapid progress has been made in the provision of social infrastructure. Karnataka is proud of the fact that it has been able to realize the goals of universal education thanks in large part to its excellent educational system, which attracts students from all over the country and the world. The information economy, which is backed by technology-driven government endeavors, has had profound and lasting effects on both integrity and governance. Karnataka's continued focus on health-related measures has helped the state limit the current Covid-19 epidemic. In addition, Karnataka has ramped up its efforts in recent years to guarantee access to WASH, which is critical for improving people's standard of living. Improved water, sanitation, and hygiene infrastructure is often cited as a way to help combat poverty, promote equality, and fuel economic growth. Successes in social infrastructure, human development, and the importance of sectoral development plans in Karnataka are discussed in this chapter.

Human Progress in Karnataka: Part III: An Overview Karnataka has outperformed its counterparts on key multidimensional indices of Human Development and the Human Development Index. Between 1981 and 2012, the state's ranking among India's states shifted back and forth between sixth and tenth. The rise of newly independent states has contributed to this upheaval in the global order. Karnataka, one of the southern states, just barely beats out Andhra Pradesh. (Before Telangana state was formed). Karnataka, on the other hand, is much behind both Kerala (in first place) and Tamil Nadu. (1st rank). (Rank 5). Table 12.1 shows how the Human Development Index has changed in the most populous states over time.

States	1981		1991		2001		2011		2012	
	Value	Rank	Value	Rank	Value	Rank	Value	Rank	Value	Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10	0.485	11	0.593	11
Assam	0.272	10	0.348	10	0.386	14	0.474	12	0.563	14
Bihar	0.237	15	0.308	15	0.367	15	0.447	18	0.536	20
Gujarat	0.360	4	0.431	6	0.479	6	0.514	8	0.598	10
Haryana	0.360	5	0.443	5	0.509	5	0.545	5	0.628	6
Karnataka	0.346	6	0.412	7	0.478	7	0.508	10	0.611	8
Kerala	0.500	1	0.591	1	0.638	1	0.625	1	0.693	1
Madhya Pradesh	0.245	14	0.328	13	0.394	12	0.451	16	0.548	16
Maharashtra	0.363	3	0.452	4	0.523	4	0.549	4	0.642	3
Orissa	0.267	11	0.345	12	0.404	11	0.442	19	0.540	18
Punjab	0.411	2	0.475	2	0.537	2	0.569	2	0.641	4
Rajasthan	0.256	12	0.347	11	0.424	9	0.468	14	0.566	13
Tamil Nadu	0.343	7	0.466	3	0.531	3	0.544	6	0.634	5
Uttar Pradesh	0.255	13	0.314	14	0.388	13	0.468	13	0.538	19
West Bengal	0.305	8	0.404	8	0.472	8	0.509	9	0.593	12
All India	0.302		0.381		0.472		0.504		0.587	

Source: 1. National Human Development Report 2001 [Note: HDI for 2001 has been estimated only for a few selected States for which some data, including the Census 2001, was available]. 2. M.H. Suryanarayana, Ankush Agrawal and K. Seetha Prabhu (2011), UNDP working paper. 3. Karnataka State Human Development Report

Ranking and worth during the years 1981-2012. In 1999, when the first Human Development Report was established, Karnataka became the second state in India to issue a Human Resource Development Report. Kerala, Maharashtra, and Gujarat rank first, second, and third, respectively, on the Human Development Report's human development index. While Karnataka ranks highly in both national gender and human development indices. When Karnataka districts were ranked using global HDI and GDI indicators, the research found considerable socio-economic inequalities across areas. The Human Development Index for Karnataka is 0.470, greater than the national average, while the Gender Development Index for the state displays socioeconomic disparity with a score of 0.451. (This is higher than the national GDI of 0.401). India is thus placed 99th, whereas the overall ranking of the nation is somewhere around 93rd. However, degrees of human development in many areas vary greatly even within a single nation.

IV The three variables under consideration are real per capita income, school enrolment rates, and educational attainment as determined by a combination of adult literacy and longevity, adjusted at maximum and minimum levels (with equal weighting for each variable) accepted by UNDP for its international comparisons. Indicates the typical life expectancy at birth. According to HDI rankings, the top 5 districts are Kodagu, Bengaluru Urban, Dakshina Kannada, Uttara Kannada, and Chikkamagalur, whereas the worst five are Mysore, Bellary, Bidar, Kalburgi, and Raichur. The lowest HDI is that of Raichur. In terms of HDI rankings among the nation's international regions, Kodagu and Dakshina Kannada are on par with China. A significant range of difference in human development levels was shown by the basic HDR, with Kodagu recording an HDI of 0.630 and Raichur district getting a value of 0.399. The districts of Kosta and Malnadu provide its citizens with a higher quality of life than the districts of Medan due to their historically high levels of health and educational achievement, as well as the socio-cultural features of their population. (plateau). Mysore, Mandya, and Kolar districts, together with the four districts of the Kalyana-Karnataka group, performed worse than Bombay-Karnataka (with the exception of Vijayapura district), which placed higher.

The level of human development in Karnataka as well as a number of significant elements affecting the development process were evaluated in the second Human Development Report, titled Financing Human Development, which was published in 2005. These concerns include the effect of public investment on outcomes for human development including life expectancy, female literacy, access to school, decreased rates of maternity and infant mortality, quality of life, and lowering gender, social class, and economic inequities. Karnataka maintained its seventh-place ranking in the Human Development Index but rose to the sixth spot in the Human Development Index, according to the study, which calculated the indices using the methodology of the United Nations Development Program. The state's gender equality has improved as a result. Even though the top five counties from 1991 were still in place in 2001, the rankings have altered. Despite having an unfavorable ratio of women to children, Bangalore Urban ranks top in the Human Development Index. The worst five districts in the state are Vijayapura, Kopal, Chamaranagar, Kalpurgi, and Raichur. Bagalkot district, which was rated 23rd in the GDI rankings in 2001, is also included on this list of poor districts.

V The GDI ranking compared

Between 1991 and 2001, the HDI ranking was favourable for the vast majority of counties. This clearly demonstrates that although gender disparity is raised in provinces with low levels of human development, it is decreased in provinces with high levels of human development. All of Kalyana-Karnataka's districts have HDI and GDI scores that are lower than the state average. In three HDI reports from Karnataka (1991, 2001, and 2012), a comparison of HDI values and district rankings reveals that 21 out of 27 districts have showed continual development, whereas 6 districts, predominantly in the Kalyana district of Karnataka, have shown

a fall in HDI. ratings and values. Bidar district rose from 21st place in 2001 to 17th place in 2012 despite being in the K-K district, demonstrating the value of targeted interventions, notably those made by the civil society and KKRDB to lower high levels of seasonal migration. The scenario is fundamentally different for Chitradurga District, which rose from tenth place in 1991 to sixteenth place in 2001 to twenty-fifth place in 2012.

Bangalore Metropolitan Area's HDI score and ranking improved gradually and quickly from 0.623 in 1991 to 0.958 in 2012. This area took the top two spots, with Dakshina Kannada coming in second. However, Kodagu district dropped to fourth place in 2012. (from first place in 1991). Based on the data in Table 12.3, it is clear that the Kalyana-Karnataka region has to put in more work to boost human development, since the districts of Raichur, Kalburgi, Koppal, Bellary, and Chitradurga rank worst in the state in terms of HDI. The top five districts in 2001 and 2012 were the same as in 2012: Bangalore Urban, Dakshina Kannada, Udupi, Kodagu, and Shivamuga.

Table 12.2 :Comparison of district wise HDI values and ranks from three HDRs (1999, 2005 and 2015) in Karnataka

Districts	1991		2001		2012	
	HDI Value	Rank	HDI Value	Rank	HDI Value	Rank
Bagalkote	-	-	0.591	22	0.593	20
Bengaluru Urban	0.623	2	0.753	1	0.958	1
Bengaluru Rural	0.472	8	0.653	6	0.735	10
Belagavi	0.471	9	0.648	8	0.657	15
Ballari	0.429	17	0.617	18	0.545	24
Bidar	0.419	18	0.599	21	0.642	17
Vijayapura	0.443	14	0.589	23	0.627	19
Chamarajanagara	-	-	0.576	25	0.589	22
Chikkamagaluru	0.524	5	0.647	9	0.774	6
Chitradurga	0.466	10	0.627	16	0.526	25
Dakshina Kannada	0.592	3	0.722	2	0.866	2
Davanagere	-	-	0.635	12	0.654	16
Dharwad	0.459	11	0.642	10	0.755	8
Gadag	-	-	0.634	13	0.590	21
Kalburgi	0.412	19	0.564	26	0.447	26
Hassan	0.473	7	0.639	11	0.768	7
Haveri	-	-	0.603	20	0.631	18
Kodagu	0.630	1	0.697	4	0.817	4
Kolar	0.443	15	0.625	17	0.671	13
Koppal	-	-	0.582	24	0.556	23

Table 12.2 :Comparison of district wise HDI values and ranks from three HDRs (1999, 2005 and 2015) in Karnataka

Districts	1991		2001		2012	
	HDI Value	Rank	HDI Value	Rank	HDI Value	Rank
Mandya	0.444	13	0.609	19	0.690	12
Mysuru	0.440	16	0.631	14	0.698	11
Raichur	0.399	20	0.547	27	0.420	27
Shivamogga	0.483	6	0.673	5	0.786	5
Tumakuru	0.447	12	0.630	15	0.668	14
Udupi	-	-	0.714	3	0.861	3
Uttara Kannada	0.533	4	0.653	7	0.752	9

HDR Reports	Top 5 Districts			Bottom 5 Districts		
	Districts	HDI	Rank	Districts	HDI	Rank
1999 (1991 Data)	Kodagu	0.630	1	Raichur	0.399	20
	Bengaluru Urban	0.623	2	Kalburgi	0.412	19
	Dakshina Kannada	0.592	3	Bidar	0.419	18
	Uttara Kannada	0.533	4	Ballari	0.429	17
	Chikkamagaluru	0.524	5	Mysuru	0.440	16
2005 (2001 Data)	Bengaluru Urban	0.753	1	Raichur	0.547	27
	Dakshin Kannada	0.722	2	Kalburgi	0.564	26
	Udupi	0.714	3	Chamarajanagar	0.576	25
	Kodagu	0.697	4	Koppal	0.582	24
	Shivamogga	0.673	5	Vijayapura	0.589	23
2015 (2012 Data)	Bengaluru Urban	0.958	1	Raichur	0.420	27
	Dakshin Kannada	0.866	2	Kalburgi	0.447	26
	Udupi	0.861	3	Chitradurga	0.526	25
	Kodagu	0.817	4	Ballari	0.545	24
	Shivamogga	0.786	5	Koppal	0.556	23

Karnataka is classified as a middle-developed country according to the Global Goals. The inequality-adjusted HDI shows that the potential loss due to inequality in Karnataka is 26%, lower than the 27.2% loss throughout all of India. There is a 40% drop in quality of life due to disparity in education, a 22% drop in health, and a 12% drop in income. Karnataka has the highest gender disparity index score, coming in at 0.598. This suggests a 60% loss in achievement across the board in all three areas owing to gender inequality, which may be ascribed in part to women's underrepresentation in political participation. Without the political engagement score, Karnataka would have been ranked 10th out of the 20 main Indian states in 2015.

District-level research indicates that whereas the metropolitan area of Bangalore has a high human development status, Kodagu is only on the verge of one. Bagalkot, Bellary, Chitradurga, Kalaburgi, Kopal, Raichur, and Yadgir, on the other hand, are among the least developed regions of the country. Human development has increased in the districts of Udupi, Dakshina Kannada, Chikkamagalur, and Kodagu between 2001 and 2012. Poverty, human development, and gender inequality all show significant geographical diversity throughout the country.

VI Trends in Karnataka's investments in human development (2015-16 to 2020-21)

The Public Expenditure Ratio, Social Allocation Ratio, Social Priority Ratio, and Human Expenditure Ratio were used to analyse Karnataka's investment in human development, as proposed by UNDP. The ratio of planned public expenditures to gross domestic product is known as the public expenditure ratio. (PER). Spending on social programs, such as healthcare, education, and rural development, is measured by the Social Allocation Ratio (SAR). The Social Priority Ratio (SPR) measures the percentage of public funds allocated to human priority areas including food security, rural revitalization, and health care. (excluding medical education). The combination of these three metrics yields the Human Expenditure Ratio. (HER). UNDP research suggests targeting percentage ratios of about 25%, particular absorption rates of 40%, basic needs rates of 50%, and population growth rates of 5%. According to

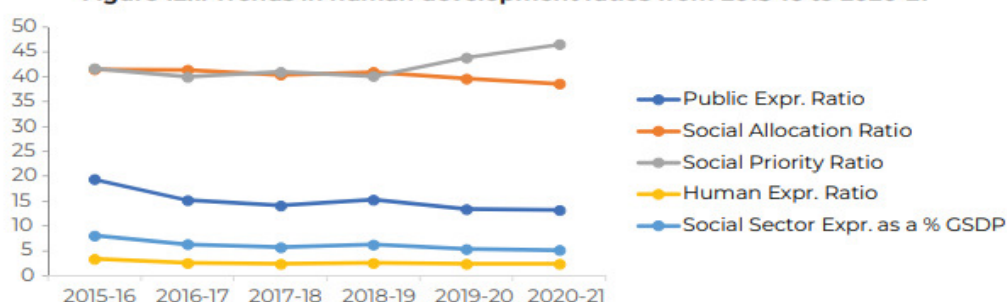
these metrics, Karnataka's social sector expenditure as a percentage of gross state product has dropped from 8.03% in 2015-16 to 5.10% in 2020-21. (2015-16 to 2020-21). (Table 12.4 and Fig. 12.1).

Table 12.4: Trends in human development ratios from 2015-16 to 2020-21

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Public Expenditure Ratio	19.36	15.16	14.07	15.24	13.34	13.17
Social Allocation Ratio	41.45	41.35	40.35	40.89	39.61	38.56
Social Priority Ratio	41.61	39.94	40.95	40.08	43.82	46.50
Human Expenditure Ratio	3.34	2.50	2.32	2.50	2.32	2.36
Social Sector Expenditure as a % GSDP	8.03	6.27	5.68	6.20	5.30	5.10

Source: Budget documents of Finance Department, GoK

Figure 12.1: Trends in human development ratios from 2015-16 to 2020-21



Health and family welfare spending in Karnataka remained constant at roughly 1% of GSDP from 2017-18 to 2021-2022, as shown by the sectoral research (Table 12.5). Health (11.3%), Medical Education (10.1%), Nutrition (8.1%), and KUWSDB (6%) have the highest CAGR values, followed by BWSSB (6%) and Rural Water Supply (-6%). Health care spending increased at an average yearly rate of 7.5% throughout the aforementioned time period.

Table 12.5: Trend in public expenditure under health from 2017-18 to 2021-22

Sector	2017-18(A/Cs)	2018-19(A/Cs)	2019-20(A/Cs)	2020-21(RE)	2021-22(BE)	CAGR	Average
Health & family welfare	5552.14	6340.06	6125.89	8401.52	8221.96	11.3	6928.31
Rural Water Supply	4190.05	3764.65	3059.43	2817.74	3832.9	-4.6	3532.95
KUWSDB	377.59	414.79	414.79	500	460	6.0	433.43
BWSSB	446.71	569.49	829.4	686.12	1348.03	27.1	775.95
Nutrition	1363.45	1888.27	1890.21	1971.75	1973.19	8.1	1817.37
Medical Education	2247.58	2838.74	2698.88	3217.09	3416.84	10.1	2883.83
Total Health	14177.52	15816	15018.6	17594.22	19252.92	7.5	16371.85
% To GSDP	1.06	1.06	0.88	0.98	1.13		

Source: (i) Budget Volumes 2021-22; Finance Department;(ii) Plan Documents 2020-21, Planning, Programme Monitoring and Statistics Department; (iii) Medium Term Fiscal Plan 2021-25, Finance Department, GoK.

Note: KUWSDB- Karnataka Urban Water Supply and Drainage Board; Bangalore Water Supply and Sewerage Board

VII Conclusion

Karnataka has fared well in the majority of crucial categories, and the next phase is anticipated to improve the state's performance to eliminate differences across regions and socioeconomic classes. Karnataka would be able to advance towards equitable human development with the help of an integrated and comprehensive human development plan and its successful execution. Greater advantages may result from coordinated and integrated social infrastructure service provision in the health, water, sanitation, and other important sectors. To guarantee that benefits reach the most underprivileged areas of the nation, inclusive development calls for a significant emphasis on health, education, and related services. Additionally, unrestricted funding should be distributed to further enhance the health and education sectors. More funding should be given to aspirant districts and persistently undeveloped taluks in order to foster equitable development of the state's people. The nation has started making substantial adjustments to its educational system to guarantee community engagement, access, equality, and quality in education. Low attrition rates are necessary at the PU level, and a detailed examination of the male degree students' attrition rate is necessary.

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