

AN ECONOMIC ANALYSIS OF SOCIAL INFRASTRUCTURE IN KARNATAKA

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Abstract:

Social infrastructure, which broadly refers to infrastructure/assets that support social services, includes the sectors of education, health and medical care, nutrition, water supply and housing, which contribute to significant improvements in human development while also accelerating economic growth. Karnataka has made rapid strides in the provision of social infrastructure through the implementation of targeted programmes that are supported by ample financial allocation, thereby contributing to multidimensional human development in the State. With this reason the present paper attempts to know about social infrastructure in Karnataka State entitled, “An Economic Analysis of Social Infrastructure in Karnataka”. This study is based on secondary data. Secondary data has been collected from various research papers, magazines, articles, journals and is also based on the published, unpublished and electronic referred sources. Finally present study has intended to offer suitable suggestions according to finding which are found during study.

Key Words: Education, Health, Sanitation, Drinking Water, Housing, etc.,

Introduction:

The Base of inclusive and sustainable growth for Karnataka as well as India, the social infrastructure like education, health and medical care, nutrition, water supply and housing are being given utmost priority by the Government. The effective functioning of these sectors is integral to interventions that are based on the human development paradigm which focuses on improving the lives of people lead rather than assuming that economic growth will lead, automatically, to greater opportunities for all.

The State has made rapid strides in the provision of social infrastructure through the implementation of targeted programmes that are supported by ample financial allocation. Karnataka boasts of being home to a robust education sector which has contributed to the State's targets for universal education, while also hosting students from across the country and abroad. The knowledge economy driven by the State's technology-based initiatives have borne far-reaching and sustainable impacts on governance and inclusiveness. Karnataka's constant focus on improvements in the health sector has contributed to effective management of the ongoing Covid-19 pandemic. Further, during the last few years, Karnataka has reinforced its efforts at ensuring the provision of safe drinking water, sanitation, and hygiene (WASH) which are fundamental to improving standards of living for people. It is widely recognized that improved WASH is central to reducing poverty, promoting equality, and supporting socioeconomic development.

Review of Literature

The past literature helps to adopt, modify and improve the conceptual framework of this project. In any work, review of literature helps to find out the past theories and established doctrines. Going through the related literature, provides an idea about the basic concepts, theories and findings.

In the article entitled “**Infrastructure Development in India Current Issues and Future Options**” Chandan and Vipin have made considerable effort to analyze the development in infrastructure sector. According to the author infrastructure is absolutely critical for India's economic growth and for sustainable development. In recent years, there has been some shift in the government approach towards infrastructure development. The infrastructure services which have been predominantly the responsibility of the state, participation of the private sector has also seen encouraged in selected sectors like transport, power, communicatons etc. provision of quality infrastructure is a crucial prerequisite for sustainable growth (Chandan & K.P. Vipin, 2010)

Buddhadeb Ghosh and Prabirde examined the “**linkages between infrastructure and regional**

disparities in India". Authors have tried to develop a planning for globalized India. Authors have used time series data and developed long-run linear relationship regression models to estimate the determinants of state level development and interstate variations. Authors identified that there are differences among the states of India in terms of development indicators, authors have proved that economical and social infrastructure have significant influence on state level development and this lead to interstate disparities (Ghosh& de, 2005).

Gowda and Mamatha have highlighted the **role and prospects of Indian infrastructure development** (Srinivasagowda, B.M.V, &Mamatha, 1997). They stresses that the pay of from better infrastructure brings a strong positive relationship between GDP and infrastructure stock per-capita (GOI, 1980)

Chakravarthy worked for **planning commission in connection with the identification of backward region and it is a relative study of infrastructure backwardness**. They viewed the problem of backward was a multidimensional and suggested the criteria to know the backward regions. The national committee made a study on the backward areas. The committee has identifies six types of backward regions, which required different type of infrastructure importance of private investment in infrastructure development (Chakravarthy, 1981).

Importance of the Study:

To engineer an inclusive and sustainable growth for Economy, the social infrastructure like education, health, Sanitation, Safe Drinking Water, Housing are being given utmost priority by the Government. The Government has been enhancing the expenditure on human capital along with adopting measures to improve the efficiency of expenditure by convergence of schemes.

Objectives of the Study

Following are the major objectives of the present research work

- 1) To analysis the Social Infrastructure in Karnataka.
- 2) To study the Performance of Social Infrastructure Development Schemes in Karnataka.
- 3) To assess the policy suggestions to the policy makers.

Methodology

In the preparation of this report, the researcher has collected the data from secondary sources. Secondary Data will give the theoretical basis required for the report presentation which can be available from various sources such as office, magazines, newspapers and websites.

Scope of the Study

The present study deals with the Status of Social Infrastructure in Karnataka State.

An Economic Analysis of Social Infrastructure in Karnataka

1. Education:

The right to education is recognized as one of the fundamental human rights and, the drive towards universal elementary education aims at ensuring its delivery. Karnataka State is a fast-growing economy, and this growth is largely based on the knowledge base of its society. The State, with active participation of communities, has embarked on bringing about significant reforms in the education sector with increased public investment to ensure access, equity and quality in education at all levels.

Literacy in Karnataka

Karnataka's overall literacy rate, which was 66.64% in 2001, rose to 75.60% in 2011. Rural-Urban distribution, Gender wise distribution and Karnataka India distribution of Literacy rate shown in the Table-1.

Particulars	Karnataka		Karnataka	India
	Rural	Urban		
Persons	68.86	86.21	75.60	74.04
Male	77.92	90.54	82.85	82.14
Female	59.60	81.71	68.13	65.46

Source: Karnataka Economic Survey 2021-22

Status of School Education

In Karnataka, the general education system is classified into different levels such as pre- primary level, primary level, upper primary, secondary education, under graduate and post-graduate education. In 2021-22, there were 24153 Lower Primary, 30876 Higher Primary and 17265 High Schools in the State.

Number of Schools

During 2021-22 (as on Nov 2021), there were 55029 elementary schools in the State, of which 24153 were LPS and 30876 were HPS. There were 17265 high schools in the State.

Enrolments

Enrolment during 2021-22 in primary (class I to V) and in upper primary (class VI to VIII) stage was 54.75 lakh and 32.13 lakh respectively. Gender wise distribution of student enrolment in all type of school from 2010-11 to 2021-22 depicted in the Table:2.

Table 2: Schools and Enrolments in Karnataka 2010-11 to 2021-22 (Numbers in Lakh)												
Enrolments (all types of schools)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Enrolments classes i to v												
Total	54.15	54.14	53.78	53.51	53.73	54.05	54.49	54.04	54.8	54.33	54.6	54.74
Boys	28.02	28.06	27.9	27.62	27.71	27.87	28.25	28.06	28.5	28.25	28.4	28.49
Girls	26.13	26.07	25.88	25.89	26.01	26.19	26.24	25.98	26.3	26.08	26.2	26.24
Enrolments classes vi to viii												
Total	20.11	20.75	30.17	29.7	29.72	29.34	29.2	29.59	30.5	31.24	31.36	32.13
Boys	10.37	10.72	15.68	15.4	15.37	15.19	15.26	15.35	15.78	16.05	16.12	16.57
Girls	9.73	10.03	14.49	14.3	14.34	14.16	13.94	14.24	14.72	15.19	15.24	15.56
Enrolments ix to x												
Total	26.04	26.07	16.67	16.85	17.67	17.74	18.04	17.59	17.83	18.35	18.39	20
Boys	13.51	13.55	8.64	8.75	9.21	9.24	9.44	9.16	9.28	9.57	9.6	10.27
Girls	12.54	12.52	8.03	8.1	8.46	8.49	8.59	8.43	8.55	8.78	8.79	9.73
Enrolment total I to 10												
Total	100.29	100.97	100.62	100.07	101.12	101.14	101.74	101.24	103.13	103.92	104.35	106.88
Boys	51.9	52.34	52.22	51.78	52.28	52.3	52.96	52.59	53.56	53.87	54.11	55.34
Girls	48.4	48.63	48.4	48.29	48.84	48.84	48.78	48.65	49.57	50.05	50.24	51.54
Total schools in state [1 to 10)	72875	73417	74230	74954	75849	76013	77967	77552	78096	79127	79281	72294

Source: Karnataka Economic Survey 2021-22

Pre-university education

As on 2021-22, In Karnataka 5591 colleges were working among them 1233 colleges were under government, 802 colleges were aided, 3542 colleges were unaided and 14 colleges were under corporation. 733887 students were enrolled for PUC I and 601204 students were enrolled for PUC II.

Collegiate Education

The Department of Collegiate Education oversees the administration of 417 Government First Grade Colleges, 11 Government Residential First Grade Colleges, 02 Government Fine Arts colleges and 320 Private Aided Degree colleges, 53 Private Aided B.Ed colleges, 27 Private Aided Law colleges, 23 Private Aided Fine Arts colleges and 6 regional offices located at Bangalore, Mysore, Mangalore, Shimoga, Dharwad and Kalaburagi. 379678 students were enrolled to Government College and 210027 students were enrolled to Pvt. Aided colleges Karnataka.

Technical education

The Department of Technical Education manages 543 technical institutes, ranging from Diploma to Degree, Junior Technical Schools, across the state (Table 3).

Table: 3 Classification of technical institutes in the state (2020-21)						
Particulars	Govt.	Govt. University	Pvt. Aided	Pvt.	Pvt. University	Total
Engineering Degree	14	06	11	193	19	243
Polytechnic	85	--	44	159	--	288
Junior Technical Schools	06	--	--	06	--	12
Total No. of Technical Institutions						543

Source: Karnataka Economic Survey 2021-22

Medical Education

Undergraduate medical education: In 2020-21, Karnataka's 52 Medical Colleges (MBBS degree), which includes 17 Government medical colleges, had a total intake capacity of 7300 students. There are 40 Dental colleges (2 government dental colleges) in the state which have a total intake capacity of 2986 students. 462 Nursing Colleges recognized by Indian Nursing Council produced 23356 Nurses (B.Sc. Graduates) in 2020-21.

2. Health

The State has made remarkable progress improving its health infrastructure at different levels in both rural and urban areas, resulting in a significant positive impact on demographic and health indicators in the State. Table No.4 outlines the demographic and health scenario of Karnataka state during the past few recent years and Table No. 5 gives information of Public health Infrastructure in Karnataka.

Sl.No.	Indicator	2015	2016	2017	2018	2019	2020	2021
1	BirthRate(for 1000Population)	18.3	18.1	17.6	17.6	17.6	17.2	16.9
2	DeathRate (for 1000 Population)	7.0	6.8	6.7	6.7	6.7	6.3	6.2
3	MaternalMortalityrate	133	108	108	108	108	92	92
4	Average life expectancy (years)	Male	67.9	67.9	67.9	67.9	67.9	67.9
		Female	70.9	70.9	70.9	70.9	70.9	70.9
5	Prevalence of Diabetes among men 15 years and above	NA				15.6	NA	
6	Prevalence of Hypertension among men aged 15 years and above	NA				26.9	NA	

Source: Karnataka Economic Survey 2021-22

Sl.No.	Type of Institution	Numbers
1	Sub-Centers	8871
2	PrimaryHealthCenters	2359
3	CommunityHealth Centers	207
4	Taluk/GeneralHospitals	146
6	Autonomous&TeachingHospitals	36
5	OtherHospitalsunderHealth&FW	11
7	DistrictHospitals	15
8	IndianSystemofMedicineHospitals	2600

Source: Karnataka Economic Survey 2021-22

3. Skill Development:

Karnataka Skill Development Corporation Limited: The Skill Development Corporation was established on 12.09.2008 with an intention to implement the recommendations of the National and State Skill Mission Recommendations. In January 2020, the department was renamed as Karnataka Skill Development Corporation.

i. **Chief Minister's Kaushalya Karnataka Yojane (CMKKY):** CMKKY is a flagship programme of Skill Development Department launched in 2017-18. Out of an annual target of 87603 are youth to be skilled in the year 2021-22, 34,212 youth have been trained and 9,038 employed under Chief Minister's Kaushalya Karnataka Yojane-2021-22 upto November 2021.

ii. **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** Pradhan Mantri Kaushal Vikas Yojana (PMKVY) was launched by the Government of India on 15 July, 2015 with the vision of the scheme is to boost employability of the Youths according to the industrial demand by providing monetary rewards to Youths for Skill Certifications.

Kaushalya Udyog Programme

Udyog Ready and Steady Programme, 6 days Residential and Non-Residential Koushalya Udyog Entrepreneurship Development Programmes are being conducted. These

programmes help to enhance the Personal Entrepreneurial Competencies.

Government Tool Room and Training Centre (GTTC)

Government Tool Room and Training Centre (GTTC) Bangalore, was established in the year 1972. The performance of GTTC in training and tooling support to industries in state has been exemplary and the objectives have been met with tremendous success, particularly in the state of Karnataka.

Karnataka German Multi Skill Development Centre (KGMSDC):

KGMSDC has established Two Multi Skill Development Centres (MSDCs) of International Standards in Bangalore & Gulbarga for training in Advanced Technology areas with the Technical Collaboration of the German Technical Corporation (GIZ-InS), Germany. The MSDCs are Government own Registered Society with full operational autonomy. Progress: 34,212 trainees have been trained since inception till end of November 2021. Out of which 11,062 SC, 1,746 ST, 6,594 Women and 3,423 Minority candidates have been trained. A placement is provided for 15,614 for all category candidates.

4. Drinking Water

Freshwater sources in Karnataka primarily include rivers, lakes, ponds, and groundwater sources with a part of the surface water being stored in reservoirs. Based on allocations from the State's seven major river basins, about 1330 TMC of surface water is available in the state in addition to an estimated 525 TMC (or 14.85 BCM) of annual extractable groundwater. Despite the challenge of Karnataka being one of the most drought-prone states in the country with large part of the state vulnerable to deficiencies in rainfall, and having reeled under 1 year of drought and four years of floods since the year 2000, rapid progress is being achieved in the State's efforts to create and sustain basic infrastructure in both urban and rural settings. The SDG Index 3.0 (2020-21) of NITI Aayog observes that 59.47% of Karnataka's rural population received safe and adequate drinking water within premises through Piped Water Supply (PWS), and that 100% of the State's rural population had access to an improved source of drinking water.

Rural water supply

In Karnataka, Rural water supply schemes are being taken up under the National Rural Drinking Water Programme (NRDWP) to provide adequate and safe drinking water to the rural population. The coordinated implementation of drinking water projects across the State has led to 4426032 rural households (45.20% of Karnataka's rural households) receiving drinking water currently through piped water supply as compared to 3312936 households (40.36% of rural households) in the year 2016-17 i.e., more than one million rural households in Karnataka have newly received piped water supply in the last about five years.

The State has accelerated its efforts to ensure adequate coverage by supplying drinking water through 1. Borewells fitted with Hand pump 2. Mini Water Supply Scheme 3. Piped Water Supply Scheme and 4. Multi Village Water Supply Scheme. Additional rural water supply schemes in drought-prone districts of Bagalkot, Bellary, Bijapur, Davanagere, Raichur and Koppal are being implemented under the centrally-sponsored Desert Development Programme (DDP) since 1997-98. Karnataka's focused efforts at providing PWS services to rural households is evident with 1495499 household PWS connections being provided during the first nine months of 2021-22 as compared to 155723 connections during 2017-18.

Urban water supply

Karnataka being one of the highly urbanizing states in the country, the State has been making efforts to provide adequate drinking water to its urban citizens across all ULBs and the BBMP Region. Various initiatives are being undertaken to supply the national norm of 135 lpcd from various surface and subsurface sources. The Karnataka Urban Water Supply and Drainage Board is responsible for providing Water Supply and Sewerage schemes in 292 urban areas of Karnataka except Bruhath Bangalore Mahanagara Palike.

During 2021-22, 23 Water Supply Schemes (Category – B & C) are ongoing with a budget allocation of Rs.484.62 Crores under the State Government's programme. Among the 23 ongoing schemes, Board aims to commission 10 water supply schemes during the current year. Up to end-November 2021, one water supply scheme has been commissioned, and the remaining schemes would be commissioned by March 2022. Major water supply schemes as

mentioned below:

1. Karnataka urban water supply modernisation project (KUWSMP):
2. Karnataka Integrated Urban Water Management Investment Program (KIUWMIP):
3. Bengaluru Water Supply and Sewerage Board (BWSSB):
4. Cauvery water supply scheme stage-V:

5. Sanitation

The unsafe disposal of human excreta leads to pollution of soil and groundwater thereby leading to contamination of food and drinking water, while also contributing to the transmission of a range of faecal-oral infections. Recognizing the harmful impacts of inadequate and poorly designed sanitation systems, the Government of Karnataka has been implementing a range of programmes to provide improved sanitation services to its citizens. As a result of these interventions, access to sanitation services has seen a rise in both urban and rural areas of the State. The NFHS-5 report (2019-20) notes that 74.8% (Rural – 68.5%, Urban – 84.4%) of the State's population lived in households that use an improved sanitation facility, as compared to 57.8% (Rural – 42.6%, Urban – 77.3%) in 2015-16 (NFHS-4). Further, NITI Aayog's SDG Index 3.0 (2020-21) observes that Karnataka had achieved 100% of its target of individual household toilets to be constructed under SBM (Gramin) and that 100% of the State's districts were ODF. The report also notes that 95.64% of the State's schools had a separate toilet facility for girls.

Since October 2014, Karnataka, through its Gram Panchayats, has been implementing the Swachh Bharat Mission –

Gramin and Urban, and adequate provision is being made in the budgets to achieve the programme's objectives. Financial incentives, from the state to complement the central share of funds are being provided to both BPL and R-APL beneficiaries, as well as beneficiaries of SC & ST communities for the construction of individual household toilets.

6. Housing:

The State's allocation for the housing sector is being increased over the years along with formulation of enabling policies and guidelines. Also, Karnataka is one of the few states which has its own housing programmes for the Economically Weaker Sections (EWS) both in rural and urban areas apart from the centrally sponsored housing schemes for EWS. In addition, the Karnataka Housing Board (KHB) caters to housing needs of low income, middle income and high-income groups. The Karnataka Slum Development Board (KSDB) is responsible for improvement of slums and resettlement of slum dwellers.

Karnataka Housing Board (KHB) is implementing the schemes approved by the Government such as 100 housing schemes, Suvarna Karnataka Housing Scheme, 225 Housing Schemes and 53 Housing Schemes. KHB has developed 12552 houses & 118010 sites during the year 2020-21 (up to November 2021).

As part of the rural housing schemes implemented as various projects, Karnataka has constructed about 4.26 million houses and developed 2.18 lakh housing sites in rural areas of the State since the year 2001. Also, about 3.23 lakh houses and 1.39 lakh housing sites have been constructed and developed respectively in urban areas in the said period. The Rajiv Gandhi Housing Corporation Limited has built 45,80,612 houses under various housing schemes and 3,57,431 sites have been distributed. As part of the Vajpayee Urban Housing Scheme, which focuses on urban poor as the target beneficiaries, during 2021-22, up to end-November 2021, 2,254 houses have been completed as against the target of 9,000. Under the Pradhan Mantri Awas Yojana HAY Urban, 1,03,770 houses have been completed and 1,47,318 houses are under various stages of construction. Along with these schemes, Karnataka has also been implementing the Rural and Urban sites scheme, and programmes of Slum improvement programme, Rajiv Awas Yojana and PMAY-Urban for urban slums development. On the whole, under various phases of the Prime Minister Awas Yojana HFA (Urban), a total of 1,80,253 houses have been sanctioned to 73,281 SC, 12,914 ST, 43,592 Minority and 50,466 OBC beneficiaries.

Conclusion

As is evident from the preceding analysis of the State's performance on various sectors that constitute social infrastructure, Karnataka has performed fairly well in most critical areas although opportunities exist to improve the State's achievements to address disparities across regions and social

groups. The State machinery recognizes the need to accelerate interventions that have a bearing on human development, and has been developing a range of programmes/schemes that focus on specific issues/target segments. However, the recent Covid pandemic has forced Karnataka to re-examine its priorities considering the imminent need to save lives and livelihoods. However, in 2021-22, as in the case of 2020-21, Karnataka has been able to achieve most of its expected outputs relating to social infrastructure.

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