

Economic Growth and Development of the Indian State of Karnataka[§]

ABSTRACT Transformation of Karnataka from a less than average per capita income state in 1990-91 to the second highest among the large states in 2022-23 has been remarkable. However, the impressive growth performance of the state has not translated into appreciable human development. This is mainly due to the significant regional variations in development. What is more, the intra-state inequalities have been increasing over the years. Thus, Karnataka is a state of contrasts—with dynamism and spectacular development in some regions co-existing with penury and backwardness in others. The imbalance is seen also in the spectacular growth of the services sector while the shares of both agriculture and industry have shown a steady decline. Bengaluru has been the leading center for the services sector growth due to, inter alia, impressive knowledge economy, innovation and high-tech capital, skilled manpower, elite public institutions, salubrious climate, multicultural and cosmopolitan population, and responsive bureaucracy. The opening up of the economy in 1991 unleashed the potential of the city and paved the way for it becoming the IT and ITES capital. The two districts in the west coast, with their private sector entrepreneurial orientation, depended on their own initiative to develop. The spirit of enterprise and high level of human development in these districts helped in wealth creation. In contrast, the Kannada-speaking districts, which were under the Hyderabad Nizam and the Bombay Presidency, continue to suffer backwardness despite the initiatives to develop them. The districts under the Mysore royalty, with large investments, face stagnancy due to the adoption of water-intensive crops as the state is unable to levy charges on water and electricity. The government's response to development has been mainly reactive to the developmental concerns. The spectacular growth of the modern services sector, large-scale migration of the technical workforce and high-net worth individuals have placed heavy demands on urban infrastructure and services. The electoral politics has resulted in the state steadily enhancing subsidies and transfers under social security and welfare-displacing capital spending and human development expenditures. Sustained and balanced growth would require significant policy re-orientation.

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1. Introduction

Karnataka occupies an important place in India's economic landscape. With a population share of just about 5 percent, the state contributed 8.2 percent of the Gross Domestic Product (GDP) of the country in 2022-23. Essentially led by the modern services sector, it is one of the fast-growing states, steadily increasing its share in the country's GDP. Not surprisingly, it has made a rapid transition from having less than average per capita Net State Domestic Product (NSDP) in the early 1990s to being the second highest among the large Indian states, next only to Telangana in 2022-23. The state is the hub of technology and innovation and has the largest pool of technical and scientific personnel in the country. It is one of the most prolific start-up ecosystems. In 2023, it had 45 of the 112 unicorns in the country, accounting for 44.6 percent of the value. It hosts over 875 Global Capability Centers (GCC). The capital city of the state, Bengaluru, has the largest share of GCC talent in the country. It is the largest foreign investment destination and a leader in services exports. Bengaluru has the largest concentration of IT and ITES enterprises and is compared to the Silicon Valley in the United States. The capital city is also the most cosmopolitan and linguistically the most diverse city in the country with only 45 percent of the city's population speaking Kannada, the state's language.¹

Despite these impressive credentials, Karnataka is a state of contrasts. While it has done well in achieving a high per capita income level, the human development record is just about average. Furthermore, economic growth in the state is concentrated predominantly in Bengaluru, the two coastal districts of Dakshina Kannada (South Kanara) and Udupi, and the coffee-growing district on the Western Ghats, Chikamagalur. The share of the four districts in the state's GSDP increased from 39.5 percent in 2004-05 to 53.8 percent in 2022-23 and the share of Bangalore–Urban alone has shown a sharp rise from 29 percent to 40 percent during this period. In broad terms, development is confined mainly to South Karnataka and North Karnataka lags behind significantly in both living standards and human development indicators. The economic growth in the state is led predominantly by the services sector. The share of the sector in total Value Added in the state has risen steadily over the years to constitute almost 70 percent of the total. Correspondingly, the shares of both agriculture and industry have been showing a steady decline.

The growth and development pattern in Karnataka cannot be explained merely by resource endowments or the infrastructure differences and for the same reason, redressal of backwardness does not depend merely on making larger public spending. Historical factors, and the nature and quality of institutions impacting on the structure of incentives seem to have played

1. <https://www.deccanherald.com/india/karnataka/bengaluru/bengaluru-linguistically-most-diverse-in-india-data-1026388.html>

an even more decisive role in determining the pattern of development in the state.² This becomes clear when we examine the performance of different regions within the state. The southern part of the state, under the patronage of the Mysore Royalty had considerable investments in irrigation, infrastructure and education. The coastal belt of the state, which was a part of the erstwhile Madras Presidency, had to depend upon its own community and the spirit of enterprise, as the capital city, located in the eastern coast, was 700 km away. The northern parts of the state ceded from the territories ruled by the Nizam of Hyderabad and those from Bombay Presidency were seeped in the feudal culture and had been subject to benign neglect. There was no focus on physical or social infrastructure, and society was seeped in the *jagirdari* system (similar to the *zamindari* system, but the land belonged to the Nizam) and practices like bonded labor and child marriage. They suffered in terms of not only a physical infrastructure deficit but also poor institutions and structure of incentives.

The state has been attracting a significant proportion of domestic and foreign investments, though the credit-deposit ratio at 59 percent is less than the average for the country by 12 percentage points. Much of the investment flows are concentrated in Bengaluru and surrounding areas. Private sector activities are concentrated in and around Bengaluru and in the coastal districts of the state. Coupled with significant infrastructure deficit and poor institutions, the northern parts of the state have continued to lag behind. This has raised the feeling of neglect, discrimination and alienation among the residents of northern Karnataka. Even in large parts of southern Karnataka, development is supported predominantly by the spread of irrigation. The two numerically strong and politically influential communities in the state—Lingayats and Vokkaligas—wield considerable influence in public policy decisions and currently, there is a considerable controversy on the share of different communities in the total population of the state, based on a Caste Survey done in 2015.

In this paper, an attempt is made to analyse the growth and development pattern of Karnataka. As one of the foremost states in the country which has recorded impressive growth performance, the analysis helps to understand the strengths and weaknesses in public policy formulation for development. Furthermore, the wide imbalance in development within the state offers an opportunity to understand the process better.

The paper is presented in five sections. Section 2 traces the growth and composition of per capita income from different sectors of Karnataka in the last two decades and its transformation from the category of a less than average per capita income to the high-income category. Economic reforms ushering in the opening up of the economy and the relaxation of controls and regulations in 1991 helped in ushering in greater freedom for the services sector, and

2. Banerjee and Iyer (2005) relate agricultural growth in districts to the system of land tenure to underline the importance of institutions in determining their growth.

Karnataka, with its comparative advantage centered around Bengaluru, was able to galvanize progress through the services-led growth acceleration. Section 3 brings out the diversity in development within the state. The southern part of the state, particularly the capital city of Bengaluru and surrounding areas, were able to reap the benefits of liberalization and increased activity in the modern services sector and the coastal parts of the state, with a strong private sector orientation combined with education, provided an impetus to encourage entrepreneurial activity, both within the region and other parts of the country. In contrast, the northern parts of the state, comprising the erstwhile Hyderabad-Karnataka and Bombay-Karnataka regions, had huge infrastructure, knowledge, and governance deficits, and institutional constraints, and continued to remain backward. Even the old Mysore region with large, irrigated areas covered by the Krishna Raj Sagar Dam irrigating the Cauvery river basin, triggered by the policy of free water supply, focused on water-intensive crops like paddy and sugarcane, with little incentive towards crop diversification, and is thereby faced with stagnancy. The policy has created a strong vested interest group resulting in the suboptimal use of water. These factors have led to a significant imbalance in development in the state with an advanced modern economy in Bengaluru and the coastal districts co-existing with extreme backwardness in the northern parts of the state. Section 4 discusses the role of state government policies in the development outcomes in the state. Section 5 highlights the lessons from the growth experience and policy implications.

2. Economic Development of Karnataka: Growth and Composition

2.1. Growth Performance in Karnataka

Karnataka has experienced an impressive growth performance in per capita income over the last two decades and catapulted itself from being a less than average per capita income state in 1990-91 to the high-income category in the 2020s. At Rs 3,04,434, the per capita income (NSDP) in the state in current prices in 2022-23 was the fourth highest in the country and if the two small states of Goa and Sikkim are excluded, the state had the second highest per capita NSDP, next only to Telangana (Table 1). The improvement in the state's rank in per capita NSDP has been spectacular—from 9 in 2011-12 to 4 in 2023-24. In fact, in 1990-91, the per capita income in the state was lower than the all-India average by 19 percent. By 2004-05, it was higher than the national average by 11 percent and the difference increased to 42.2 percent in 2011-12 and to 80 per cent in 2022-23.

There are some shortcomings with both inter-state and inter-temporal comparisons of NSDP and it is important to take a cautious note of this. The data on State Domestic Products (SDP), released by the Ministry of Statistics and Programme Implementation (MoSPI), are not strictly comparable, as these

TABLE 1. Per Capita NSDP (Current Prices) Ranking of States (Rs)

	2004-05	Percent of Average	Rank	2011-12	Percent of Average	Rank	2022-23	Percent of Average	Rank
Andhra Pradesh	25959	107.5	13	69000	108.7	14	219881	129.7	11
Bihar	7914	32.8	28	21750	34.3	28	53478	31.6	28
Chhattisgarh	18559	76.9	21	55177	86.9	18	137329	81.0	21
Goa	76968	318.8	1	259444	408.8	1	492648	290.7	2
Gujarat	32021	132.6	7	87481	137.8	11	272451	160.7	7
Haryana	37972	157.3	2	106085	167.2	3	296592	175.0	5
Jharkhand	18510	76.7	23	41254	65.0	23	96449	56.9	26
Karnataka	26882	111.3	10	90263	142.2	9	304474	179.6	4
Kerala	32351	134.0	6	97912	154.3	6	252662	149.1	8
Madhya Pradesh	15442	64.0	26	38497	60.7	26	132010	77.9	22
Maharashtra	36077	149.4	3	99597	156.9	5	252389	148.9	9
Odisha	17650	73.1	24	48387	76.2	21	143765	84.8	19
Punjab	33103	137.1	5	85577	134.8	12	181678	107.2	15
Rajasthan	18565	76.9	20	57192	90.1	17	150653	88.9	17
Tamil Nadu	30062	124.5	9	93112	146.7	8	277802	163.9	6
Telangana	24409	101.1	16	91121	143.6	7	312522	184.4	3
Uttar Pradesh	12950	53.6	27	32002	50.4	27	84126	49.6	27
West Bengal	22649	93.8	19	51543	81.2	20	139442	82.3	20
India: per capita NNP	24143	100.0		63462	100.0		169496	100.0	

Source: Handbook of Statistics of the States, 2023; Reserve Bank of India.

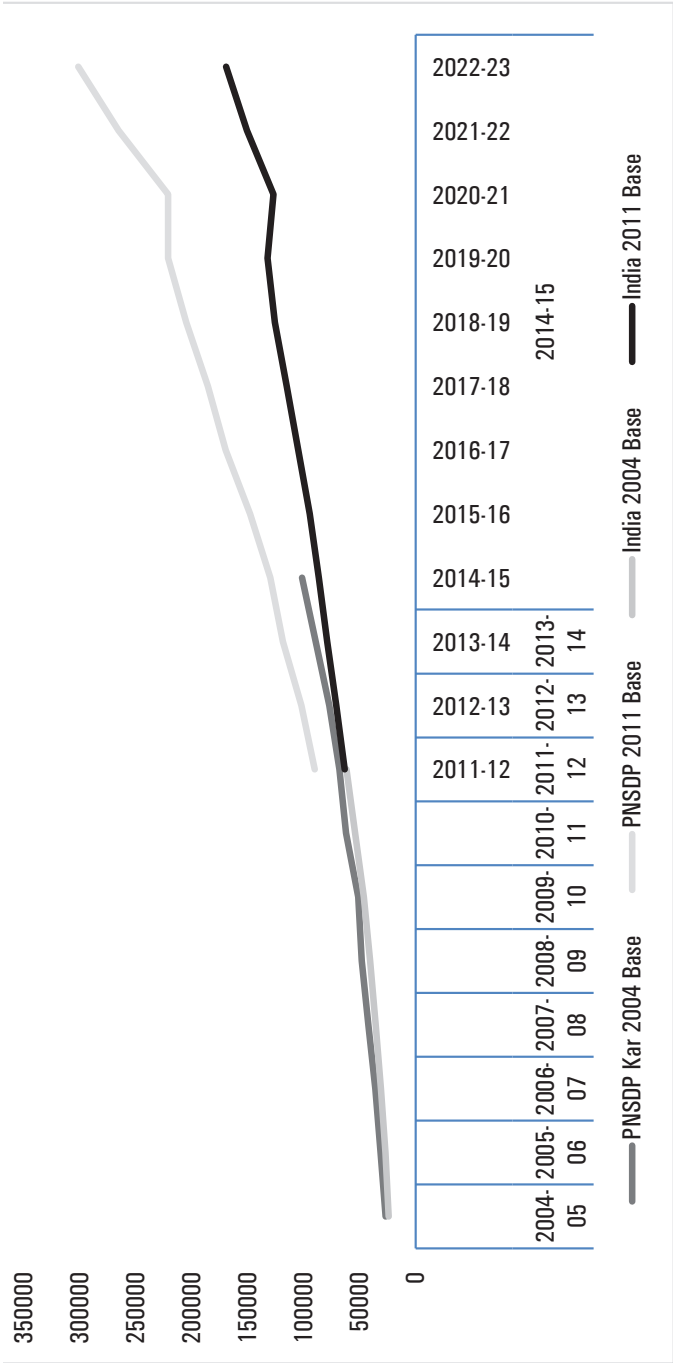
have been put together by the respective states, though by following a uniform methodology. Comparable SDP data are estimated by the MoSPI generally at the request of the Finance Commissions and continuous time series for them is not available. The more serious problem relates to the time series data when the base year is changed. The changes are expected to incorporate improved

TABLE 2. Effect of Base Change in 2011-12 (Percent)

<i>State</i>	<i>Percentage</i>
Andhra Pradesh	6.53
Arunachal Pradesh	3.05
Assam	13.28
Bihar	-3.68
Chhattisgarh	14.08
Goa	22.63
Gujarat	1.75
Haryana	-0.22
Himachal Pradesh	16.67
Jharkhand	12.86
Karnataka	32.64
Kerala	18.32
Madhya Pradesh	3.54
Maharashtra	6.77
Manipur	18.01
Meghalaya	19.27
Mizoram	7.52
Nagaland	-16.89
Odisha	11.33
Punjab	11.29
Rajasthan	4.68
Sikkim	21.93
Tamil Nadu	4.56
Telangana	21.29
Tripura	-7.28
Uttar Pradesh	6.60
Uttarakhand	17.50
West Bengal	-3.45
All States	8.95

Source: Author's estimate.

Figure 1 : Trends in Per Capita Income in Karnataka and India, 2004-05 to 2022-23



Source: Handbook of Statistics on Indian States, RBI, Various Issues.

methodology and use new and better data sets, available for estimation. While, by and large, the changes in the base year are not very disruptive, the story was different in the case of Karnataka when the base year was changed from 2004-05 to 2011-12. While the difference in the average per capita income of the states in the aggregate was just about 10 percent, in the case of Karnataka, the difference was the highest at 32.6 percent. Thus, the per capita income of the state suddenly became higher in 2011-12 just as the base year was changed (Table 2, Figure 1). This injects discontinuity to in the time series comparisons. Although most time series comparisons make proportionate adjustment in the GSDP, it is important to take note of this discontinuity in the case of Karnataka.

2.2. Inter-sectoral Composition

Even when we consider the trend from 2011-12 in the sectoral composition of Gross State Value Added (GSVA), the changing pattern is clearly seen. The GSVA of Karnataka in current prices registered an annual growth of 12.4 percent during the period 2011-12 to 2023-24. This was mainly due to the services sector, which registered a growth of 13.6 percent, on average. Interestingly the growth rate of agriculture was marginally lower than the aggregate growth at 12.2 percent. In contrast, the industry sector grew at just about 9.4 percent during this period. In terms of the composition, the shares of both primary and secondary sectors have shrunk, the latter much faster, over the years, and commensurately, the share of the services sector has shown a sharp increase in the total GSVA. The share of the primary sector declined from 13.7 percent in 2011-12 to 11.7 percent in 2024-25, and within the primary sector, the share of agriculture declined from 10.1 percent in 2011-12 to 8.5 percent in 2023-24. The share of the secondary sector declined sharply from 29.5 percent to 20.1 percent during the same period. Correspondingly, the share of the services sector increased by over 11 percentage points from 56.8 percent in 2011-12 to 68.1 percent in 2024-25, which is the highest among the states. This differential inter-sectoral growth performance has implications for distribution of incomes as well. According to the Periodic Labour Force Survey (PLFS), in 2020, 46.6 percent of the workforce was engaged in agriculture, generating less than 10 percent of the GSVA. Employment in the services sector was 41 percent, with its contribution to the GSVA being 68.1 percent.

An analysis of growth of per capita NSDP in constant prices shows that Karnataka consistently registered a much higher annual average growth than the all-states' average during the last two decades (Table 3). The growth was steady at 6.4 percent during the entire period from 2004-05 to 2022-23 as well as during the two sub-periods of 2004-05 to 2011-12 and 2012-13 to 2022-23. To adjust for the discontinuity in the data due to the change in the base year (2011-12), the growth rate was estimated for the two periods separately for the periods 2004-11 and 2011-23. The analysis of growth shows that among the

general category states, the growth of per capita NSDP in Karnataka was the second highest during the period 2011-2023. And for the entire period of 2004-23, only Gujarat and Tamil Nadu showed higher growth rates. It is also seen that while the growth rate in both Gujarat and Tamil Nadu decelerated during the second period (2012-23), Karnataka continued to record the same growth during both the sub-periods. Thus, the growth in per capita NSDP was not only high but also steady during the last two decades (Table 4). Not surprisingly, the growth performance of Karnataka has been exemplary.

TABLE 3. Sectoral Composition of GSDP (Current Prices)

<i>2004-05 Series</i>				
<i>Year</i>	<i>Primary</i>	<i>Secondary</i>	<i>Services</i>	<i>Total GVA</i>
2004-05	16.3	31.2	52.5	100.0
2005-06	17.1	30.5	52.3	100.0
2006-07	15.0	32.9	52.1	100.0
2007-08	14.8	32.7	52.5	100.0
2008-09	13.5	32.2	54.3	100.0
2009-10	14.2	29.8	56.0	100.0
2010-11	15.6	29.5	54.9	100.0
<i>2011-12 Series</i>				
2011-12	13.7	29.5	56.8	100.0
2012-13	13.0	27.9	59.1	100.0
2013-14	13.1	26.5	60.4	100.0
2014-15	13.1	24.6	62.3	100.0
2015-16	11.9	24.0	64.0	100.0
2016-17	11.0	24.8	64.2	100.0
2017-18	12.5	24.2	63.3	100.0
2018-19	11.4	24.2	64.4	100.0
2019=20	12.4	21.3	66.3	100.0
2020-21	15.2	20.9	64.0	100.0
2021-22	14.6	22.3	63.1	100.0
2022-23	12.7	20.9	66.3	100.0
2023-24*	12.0	20.7	67.4	100.0
2024-25**	11.7	20.1	68.1	100.0
Average Growth Rate 2011-25 (%)	12.2	9.4	13.6	12.4

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

Note: * First Revised Estimate; ** Advance Estimate.

TABLE 4. Per Capita NSDP Growth (Constant Prices)

<i>States</i>	<i>2004-2011 (2004-05 Base; 2004-05 Prices)</i>	<i>2011-2022 (2011-12 Base; 2011-12 Prices)</i>	<i>2004-2022 (Adjusted 2011-12 Base; 2011-12 Prices)</i>
Andhra Pradesh	6.09	6.08	5.66
Bihar	8.16	3.02	4.94
Chhattisgarh	5.81	4.11	4.49
Goa	6.80	3.16	4.25
Gujarat	8.36	6.83	7.60
Haryana	7.23	4.62	5.85
Jharkhand	5.42	3.24	4.32
Karnataka	6.39	6.39	6.39
Kerala	7.23	4.12	5.31
Madhya Pradesh	6.31	4.71	5.50
Maharashtra	7.58	3.59	5.02
Odisha	5.02	5.84	5.24
Punjab	5.10	3.40	4.01
Rajasthan	6.71	3.38	4.84
Tamil Nadu	9.15	5.43	6.64
Telangana	8.99	6.18	6.74
Uttar Pradesh	4.97	3.44	3.99
West Bengal	5.30	3.38	3.82

Source: Estimated from Handbook of Statistics in States, RBI, 2023.

As mentioned above, the high growth in GSDP in Karnataka was propelled mainly by the services sector. The inter-sectoral composition of the GSVA shows that in 2022-23, the share of the services sector in Karnataka, at 65.4 percent, was the highest among the non-special category states. In contrast, the share of the secondary sector was just about 20.9 percent while that of the primary sector was just 13.7 percent. Within the primary sector, the share of agriculture was just about 9.7 percent. It is also seen that there was an increase in the share of the services sector from 56.8 percent in 2011-12 to 65.4 percent with an accompanying decline in the share of the secondary sector from 29.5 percent to 20.9 percent. The share of the primary sector has been constant at 13.7 percent, though within the sector, the share of agriculture declined from 9.7 percent to 8.5 percent (Table 5). In other words, the sector continued to contribute 13.7 percent despite the declining share in agriculture, mainly due to the increased contribution of mining.

Table 5: Composition of Gross Sectoral Value Added in States

<i>State</i>	<i>2011-12</i>			<i>2022-23</i>		
	<i>Agriculture</i>	<i>Industry</i>	<i>Services</i>	<i>Agriculture</i>	<i>Industry</i>	<i>Services</i>
Andhra Pradesh	14.9	32.2	40.9	14.3	25.7	39.3
Arunachal Pradesh	23.6	19.3	38.7	11.9	28.1	45.6
Assam	15.2	32.4	46.5	13.7	36.2	41.8
Bihar	17.6	18.8	55.5	11.8	19.1	56.2
Chhattisgarh	12.1	47.3	34.6	11.6	44.8	34.8
Goa	2.6	63.6	31.3	3.1	48.5	44.6
Gujarat	14.4	43.8	36.7	10.6	48.3	35.1
Haryana	14.9	31.6	44.9	8.8	30.6	51.1
Himachal Pradesh	9.7	44.2	39.0	8.2	42.3	44.1
Jharkhand	9.6	45.4	38.5	6.8	41.2	43.7
Karnataka	9.7	29.5	56.8	8.5	20.9	65.4
Kerala	8.6	28.2	57.5	4.1	24.6	65.2
Madhya Pradesh	24.1	30.9	39.1	32.3	21.5	35.9
Maharashtra	8.9	35.8	51.1	7.1	25.8	62.3
Manipur	10.8	15.4	64.8	15.6	10.2	68.1
Meghalaya	8.6	40.3	44.7	12.4	19.2	58.7
Mizoram	10.2	20.5	59.4	6.3	31.2	48.4
Nagaland	16.9	12.9	56.2	13.5	12.8	60.7
Odisha	11.6	43.6	38.5	11.2	45.0	35.6
Punjab	19.7	25.4	43.8	14.1	27.8	46.2
Rajasthan	17.6	32.7	38.7	12.8	27.4	45.3
Sikkim	7.2	62.9	28.8	7.2	61.7	29.7
Tamil Nadu	7.8	36.9	50.5	5.9	34.3	53.0
Telangana	9.6	30.9	52.8	8.3	18.8	64.4
Tripura	17.0	20.4	52.4	24.0	19.3	41.8
Uttar Pradesh	18.2	27.6	45.5	16.5	27.5	47.5
Uttarakhand	7.1	53.8	33.9	4.3	46.6	43.9
West Bengal	14.5	26.6	49.9	11.5	24.5	55.1
India	12.4	32.7	48.3	10.7	28.7	52.4

Source: Estimated from Handbook of Statistics in States, RBI, 2023.

The high and increasing share of the services sector has been mainly due to the exemplary growth of Information Technology (IT) and Information Technology-enabled Services (ITeS), with a heavy concentration of these two sub-sectors in Bengaluru, which is referred to as the Silicon Valley of India.

It is also seen that despite the government's efforts to promote manufacturing and increase in the share of the construction sector, the share of the secondary sector has shown a steady decline. Similarly, despite heavy investment by the government in large irrigation projects over the years, the share of agriculture in the total Value Added has steadily declined. It may be noted that Karnataka is the second-most arid state in the country, next only to Rajasthan, and despite large investments and political patronage, productivity in agriculture is low. However, Karnataka is a leading state in both floriculture and horticulture, with Bengaluru and the surrounding areas serving as the hub for these activities. The state was awarded "the Best State for Horticulture 2022" for promoting horticultural development and production during the 13th Agriculture Leadership Awards and Bengaluru is a prominent hub for flower, particularly rose, exports from India (Government of Karnataka 2023).

3. Uneven Development of Karnataka

3.1. *Lagging in Human Development*

Ironically, while Karnataka is almost on the top in terms of its rank in per capita income, its performance in other development indicators is not commensurate with this position (Table 6). While the State ranked 4th in per capita NSDP (2nd if only the large general category states are considered), its rank in the headcount ratio of poverty was the 12th (8th among the large general category states). In terms of human development indicators, the state's performance is not as impressive. Its rank was 22 in the proportion of underweight children below 5 years and 21 for stunted children aged less than 5 years. The state ranks 20th in the dropout ratio at the secondary school level and in the proportion of literate population above 15 years.

Thus, the high growth in per capita NSDP seen in the last two decades and the improvement in the state's rank in per capita NSDP from 10 to 4 did not lead to a commensurate performance in poverty reduction and improvement in human development. This is because the increases in income levels were uneven, resulting in higher inequality among people and regions. This is not surprising as changes in the sectoral composition of GSVA show the steadily increasing share of the services sector and declining share of the manufacturing and agricultural sectors. A recent study shows that the estimated number of workers in the state is close to 3 crore and only 24.7 percent of them are engaged in the formal sector (Akshatha 2024). According to the PLFS, 46.5 percent of the workers are engaged in agriculture, generating just about 9 percent of the GSVA in 2022-23, indicating the unevenness in income generation. A better understanding of this phenomenon requires more detailed analysis of the inter-regional differences in income levels and growth rates.

Table 6: Development Indicators of States

Income Related 2022-23		Other Development Indicators						
PCNSDP	Ag. Share	Headcount	Underweight	Stunted	Preg. Anaemic	Dropout ratio	Enrolment	Literacy
		Poverty (%)	Children < 5 yrs (%)	Children < 5 yrs (%)	women (15-49) (%)	secondary level (%)	Higher Sec. (%)	> 15 Years (%)
Andhra Pradesh	219881	14.29	29.8	31.2	53.7	16.3	56.7	68
Arunachal Pradesh	199992	11.85	15.4	28	27.9	11.7	53.7	80.6
Assam	119308	13.65	32.8	36.3	54.2	20.3	40.1	69.3
Bihar	53478	11.83	41	42.5	63.1	20.5	35.9	67.3
Chhattisgarh	137329	11.63	31.3	34.6	51.8	9.7	68.1	74.8
Goa	492648	3.11	24	25.8	41	9	73.7	94.4
Gujarat	272451	10.65	39.7	39	62.5	17.9	48.3	82.8
Haryana	296592	8.83	21.5	27.5	56.4	5.9	75.5	80.6
Himachal Pradesh	218788	8.19	25.5	30.8	42.2	1.5	94.1	86.5
Jharkhand	96449	6.81	39.4	39.6	54.8	9.3	46.4	74.6
Karnataka	304474	8.54	32.9	36.4	46.7	14.7	56.6	77.8
Kerala	252662	4.14	19.7	23.4	31.4	5.5	85	94.8
Madhya Pradesh	132000	32.29	33	36.7	52.8	10.1	51.3	72.6
Maharashtra	252389	7.12	36.1	35.2	45.7	10.7	71.5	85.1
Manipur	111853	15.59	13.3	23.4	32.4	1.3	69.9	38.6

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Meghalaya	123896	12.40	27.79	26.6	46.5	45	21.7	46	94.3
Mizoram	215144	6.34	5.3	12.7	28.9	34	11.9	61.3	99.3
Nagaland	145537	13.46	15.43	26.9	32.7	22.2	17.5	35.8	94.4
Odisha	143765	11.19	15.68	29.7	31	61.8	27.3	43.6	75.6
Punjab	181678	14.06	4.75	16.9	24.5	51.7	17.2	82.1	81.4
Rajasthan	150653	12.84	15.31	27.6	31.8	46.3	7.7	70.4	68.3
Sikkim	520461	7.24	2.6	13.1	22.3	40.7	11.9	64.2	85.4
Tamil Nadu	277802	5.94	2.2	22	25	48.2	4.5	81.5	83.9
Telangana	312522	0.84	5.88	31.8	33.1	53.2	13.7	64.8	75.7
Tripura	157364	23.99	13.11	25.6	32.3	61.5	8.3	56.3	92.2
Uttar Pradesh	84126	16.45	22.98	32.1	30.7	45.9	9.7	50.7	72
Uttarakhand	230994	4.26	9.67	21	27	46.4	5	78.8	83.5
West Bengal	139442	11.46	11.89	32.2	33.8	62.3	18	62	80.6
India Per capita NNP	169496	10.75	14.96	32.1	35.5	52.2	12.6	57.6	76.7
Karnataka's Rank	4	11.00	12	22	21	13	20	17	17

Source: Sustainable Development Report 2023-24, NITI Aayog, Government of India; Handbook of Statistics of States, 2023.

3.2. Inter-district Imbalance in Development: Outperformers and Laggards

Table 7 presents the per capita Net District Domestic Product (NDDP) in the state at constant (2011-12) prices for 2004-05, 2011-12, and 2022-23. The district development product information has been estimated by the Directorate of Economics and Statistics, Government of Karnataka for 2002-03. Since the base years have changed in 2004-05 and again in 2011-12, inter-temporal comparison of per capita NDDP poses problems. However, since we aim to observe the relative differences in per capita DDP across districts, we have constructed the index of per capita DDP for the districts taking average of the district product as for the years 2002-03 and 2022-23.

Table 7: District-wise Per Capita NDDP (2011 Prices)

	<i>Per capita NDDP (Rs)</i>			<i>Index: State Average=100</i>		
	<i>2005-06</i>	<i>2011-12</i>	<i>2022-23</i>	<i>2005-06</i>	<i>2011-12</i>	<i>2022-23</i>
Bagalkote	36357	78041	132653	93.2	86.5	75.4
Bangalore Urban	86507	185767	443876	221.8	205.8	252.4
Bangalore Rural	30528	95787	170244	78.3	106.1	96.8
Belgaum	23873	54114	84012	61.2	60.0	47.8
Bellary	44158	77760	169725	113.2	86.1	96.5
Bidar	21328	49614	84042	54.7	55.0	47.8
Bijapur	23070	51077	90886	59.2	56.6	51.7
Chamarajanagar	30237	70818	115463	77.5	78.5	65.6
Chickballapur		66617	113488	0.0	73.8	64.5
Chickmagalur	54573	124460	218373	139.9	137.9	124.1
Chitradurga	23966	51790	95314	61.5	57.4	54.2
Dakshina Kannada	77014	156164	302385	197.5	173.0	171.9
Davangere	28039	58728	99211	71.9	65.1	56.4
Dharwad	32986	76745	136927	84.6	85.0	77.8
Gadag	28908	60551	99603	74.1	67.1	56.6
Gulbarga	22919	45101	77130	58.8	50.0	43.9
Hassan	30848	79114	137043	79.1	87.6	77.9
Haveri	27912	59190	87762	71.6	65.6	49.9
Kodagu	38279	102471	151902	98.2	113.5	86.4
Kolar	25787	69007	109332	66.1	76.5	62.2
Koppal	30066	54401	83942	77.1	60.3	47.7
Mandya	34826	85749	139234	89.3	95.0	79.2
Mysore	27833	65218	121229	71.4	72.3	68.9

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Raichur	25280	51951	91595	64.8	57.6	52.1
Ramnagara		84883	148263	0.0	94.0	84.3
Shimoga	40022	87943	160374	102.6	97.4	91.2
Tumkur	32338	81757	142049	82.9	90.6	80.8
Udupi	46779	127780	251000	119.9	141.6	142.7
Uttara Kannada	30906	69408	123636	79.2	76.9	70.3
Vijayanagara			92029			52.3
Yadgir		46130	85578		51.1	48.7
State	39000	90263	175895	100	100	100

Source: Department of Economics and Statistics, Government of Karnataka.

TABLE 8. Income Shares of Four High Income Districts

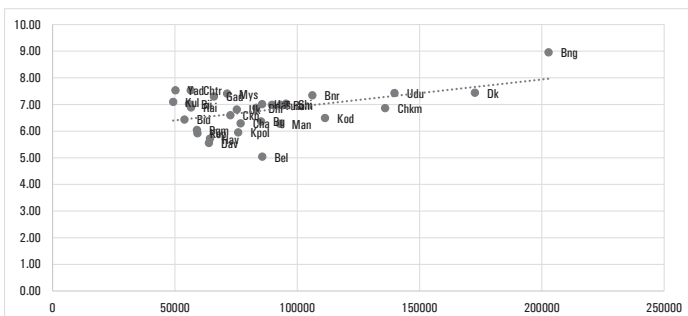
	2004-05	2011-12	2022-23
Bengaluru Urban	29.45	32.41	37.85
Dakshin Kannada	5.69	5.92	5.51
Udupi	2.13	2.73	2.61
Chikamagalur	2.30	2.57	2.33

Source: Department of Economics and Statistics, Government of Karnataka.

The most significant story of Karnataka's development is reflected in the acute inter-district differences and disparities that have been increasing steadily over the years. The coefficient of variation in per capita income among the districts was 0.39 in 2004-05, which declined marginally to 0.36 in 2011-12 and increased sharply to 0.43 in 2022-23. The share of every district in the state except for Bengaluru-Urban and Udupi declined over the years, as seen from the index values of the per capita NDDP in the districts. Interestingly, in 2002-03, ten districts in the state were above the state average, but by 2022-23, there were only four. It is also seen that Bengaluru-Urban has been the fastest growing district, with its index increasing from 202 to 241 over the 20-year period. In fact, much of the economic activity in the state is concentrated in Bengaluru-Urban and two coastal districts and the share of four districts in the state's NSDP has steadily increased from 39.6 percent in 2004-05 to 48.3 percent in 2022-23. The share of Bengaluru-Urban district alone increased from 29.5 percent to 37.9 percent during the corresponding period (Table 8). Thus, the affluence of Karnataka derives from the prosperity of Bengaluru and two coastal districts, and to some extent, the coffee-growing district of Chikamagalur, while the remaining parts of the state have continued to stagnate.

The growing divergence in the income levels between the districts emerges clearly when we plot the growth in NDDP between 2011-12 and 2022-23 against per capita income levels in 2011-12 shown in Figure 2. The positive slope indicates that the growth of the District Domestic Product (DDP) was higher in states with higher per capita DDP. It is also seen that Bengaluru-Urban is an outlier, as it shows a much higher growth than the trend seen in the slope.

Figure 2: Growth of GSDP 2011-23 Related to Per Capita GSDP of 2011-12



Source: Department of Economics and Statistics, Government of Karnataka.

Thus, the story of Karnataka is that much of the economic activity is concentrated in Bengaluru, the coastal districts of Dakshin Kannada and Udupi, and Chikmagalur. The rest of the state has continued to stagnate and not surprisingly, reduction in poverty and improvement in human development in the state has not been commensurate with the increasing per capita NSDP of the state. It is also seen that an overwhelming proportion of the growth in these districts was concentrated in the services sector. This raises questions about the reasons for the emergence of Bengaluru as the “Silicon City”. Similarly, it is important to understand the reasons for emergence of the erstwhile South Kanara district, which was later bifurcated into the Dakshin Kannada and Udupi districts as the banking hub and the dominant private sector dynamism in the region. The development dynamics in both Bengaluru and coastal districts offer important insights. In fact, in 2022-23, the share of the three districts of Bengaluru–Urban, Dakshin Kannada, and Udupi in the DDP was 46 percent. Bengaluru is clearly a conspicuous performer in per capita NSDP growth, with its share in the DDP in 2022-23 being 38 percent, up from 29.5 percent in 2004-05. Interestingly, Bengaluru was a sleepy town in the 1970s and 1980s and with a salubrious climate, affordable real estate prices, and peace-loving cosmopolitan population, it was a paradise for retirees from all over the country to move in. The transformation of this town into a fast-paced metropolis was nothing short of a miracle. The revolution was the result of the 1991 reforms, and

with the essential ecosystem for the fast-paced growth of the services sector in place, the city could leverage the liberalized environment to record spectacular growth. Notably, along with the fast-paced growth of services sector activities besides high growth in incomes, there has been large-scale migration of skilled personnel to the city, putting enormous pressure on the urban infrastructure and services. Consequently, the state government and more particularly, the municipal corporation, could not keep pace with the transformation, and the city has largely grown in an unplanned manner. The response of the authorities was mainly in terms of reacting to the situation rather than proactively planning for the growth of the city. The salient features of Bengaluru leading to its emergence as the hub of the modern services center are featured in Box 1.

Box 1. Eight Factors Contributing to Bengaluru as a Growth Pole

1. Knowledge Ecosystem, Scientific Institutions and Largest Technical Pool: Bengaluru is a knowledge hub creating the largest pool of scientific and technical personnel. The Indian Institute of Science, established in 1909 by a visionary partnership between Jamsetji N. Tata, the Mysore royal family, and Government of India, has continued to be a premier knowledge and innovation institution. The city has 212 engineering colleges, out of which 189 are privately owned. There are more than 200 medical colleges. Besides, there are about 650 colleges in the city. There are advanced technical and management institutions like Indian Institute of Information Technology and Indian Institute of Management, National Centre for Biological Sciences (NCBS), Ashoka Trust for Research in Ecology and Environment (ATREE), Raman Research Institute, National Aerospace Laboratories, National Institute of Mental health and Neurosciences and Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR).

2. Elite Public Sector Institutions: Bengaluru is a host to the headquarters of several elite public sector undertakings such as Bharat Electronics Limited (BEL), Hindustan Aeronautics Limited (HAL), National Aerospace Laboratories (NAL), Bharat Earth Movers Limited (BEML), Indian Space Research Organization (ISRO) and U.R. Rao Satellite Centre. Bengaluru has strong R&D centers of ABB, Airbus, Bosch, Boeing, GE, GM, Google, Liebherr-Aerospace, Microsoft, Mercedes-Benz, Nokia, Oracle, Philips, Shell, Toyota, and Tyco.

3. Natural Choice for IT Capital: With the ecosystem attracting the brightest technology professionals, new-age professional entrepreneurs, and the largest technical pool in the country, Bengaluru has become a natural choice for leading the boom in IT and ITeS.

4. Salubrious Climate: Located on the Deccan Plateau at a height of 3000 feet above the sea level, Bengaluru is known for its healthy and pleasant climate throughout the year. Until the new millennium, Bengaluru was called a pensioner's paradise due to its pleasant climate, green spaces, and affordable housing.

5. Cosmopolitan, Multilingual and Multicultural Population: Bengaluru is the most diverse linguistic and cultural city in India. According to the 2011 Census, as many as 107 languages were spoken in the state, and the Kannada-speaking population in the city was just about 44.5 percent. Bordering the states of Tamil Nadu and Andhra Pradesh, and with a large migrant population from the north, Bengaluru is the most diverse city of the state.

6. Strategic Location. Bengaluru borders Tamil Nadu and is closely accessible from the southern and southwestern regions of Andhra Pradesh.

7. Responsive Bureaucracy: The bureaucracy has been responsive and sensitive to the needs of the entrepreneurs and institution-builders. The then industries secretary, Mr. T.R. Satish Chandran, personally helped a professor in Physical Research Laboratory, Ahmedabad, Professor U.R. Rao, to facilitate the setting up of the Satellite Centre in an industrial estate in Peenya on the outskirts of Bengaluru city, and facilitated his interactions with industries and institutions in Bengaluru to start the work on Aryabhata, the first Indian satellite (Rao, 2014). Similarly, in 1983, when Mr Narayana Murthy, one of the founders of Infosys, was struggling to raise funds for setting up his company, even as Citibank, Bank of America, and a few other banks refused to grant him a loan of Rs 50 lakh, the Karnataka State Finance Corporation and Karnataka State Industrial Investment & Development Corporation provided the required funds.

8. Connectivity: Bengaluru is a well-connected city. The Bengaluru airport has air connectivity to most global hubs and the city also has good rail and road connections. Even the ports of Mangalore and Chennai are not too far and accessible.

3.3. Private Sector-led Development in the Coastal Region of Karnataka

The fast-paced growth experience in the two coastal districts—Dakshin Kannada and Udupi—makes an equally interesting story. The government hardly played any role in the growth performance of these districts and the local populations in the two districts had to depend on their own initiative for fuelling growth. The erstwhile district of South Kanara on the West Coast, included in Karnataka at the time of reorganization, was a part of Madras Presidency, with its capital located 700 km away on the east coast of Madras (now Chennai). The South Kanara district was later bifurcated into Dakshin Kannada and Udupi in 1997. The lack of proximity to the government, in some ways, was a blessing in disguise. There were no government employment avenues nor any assistance or patronage to be sought and the people in the region had to depend on their own initiatives. This led to the emergence of local businesses and entrepreneurs, which filled the void. The large number of temples and a significant Brahmin population led to the emergence of skilled cooks and many of them migrated to places all over the country to set up fast food Udupi restaurants (Tumbe 2018). The first private self-financing medical college in the country came up in Manipal, a small hilly terrain in the outskirts of Udupi. The fascinating journey of the district as a cradle of banking started in 1906 when two prominent banks, the Corporation Bank and Canara Bank, were established, soon followed by Syndicate Bank and Vijaya Bank, in 1926, all within a diameter of 50 km around Mangalore and Udupi. While addressing a Bank Economists' Conference in 1981, Dr I.G. Patel stated, "For anyone connected with banking, this one district of South Kanara is like a banking country where one comes on a pilgrimage to see what has been done. It is not merely the home for four public sector banks ... Innovative banking, developmental banking, banking essentially for small and middle- sized man rather than the big industrialist or the big trader." (Agarwal 2023, p. 7). The

resource scarcity and cluttering of the region between the Arabian Sea, on one side, and mountainous range of Western Ghats, on the other, was adequately compensated by the enterprising nature of the people, with an emphasis on education and health, and the migration of skilled manpower. The interesting features of private sector-led inclusive growth in Dakshin Kannada and Udupi districts are summarized in Box 2.

Box 2. Coastal Karnataka: Private Sector-led Development

A good example of private sector-led development experience is seen in the two coastal districts of Dakshin Kannada and Udupi. Before Independence, it was a single district (South Kanara) and was part of Madras Presidency. In the states' reorganization, it was included in the state of Mysore, which was renamed as 'Karnataka' in 1973. The district was bifurcated into Dakshin Kannada and Udupi in 1997.

As a part of Madras Presidency, there was hardly any presence of the government, with its capital located 700 km away on the east coast. After it became part of Karnataka too, there was little presence of the state government in the region due to distance and problems of connectivity associated with the Western Ghats. Given the high density of population, people looked up to Mumbai for livelihood opportunities. There was not much rail connectivity and yet, about 150-200 private "luxury" buses were plying between Mangalore and Mumbai, covering a distance of 1200 km every day from the mid-1960s until the Konkan railway became operational in 1998.

Following were five distinct features of developmental dynamics in the region: (i) Active migration of skilled people and large remittances; (ii) Strong private sector orientation and less dependence on the government; (iii) Emergence of a number of commercial banks, community-oriented banking, female employment, and focus on financial inclusion; (iv) High levels of education, particularly female education and healthcare; and (v) Decentralized development based on local resources.

Historically, there was a considerable emphasis on education. The entire region also has a vibrant temple culture. Udupi, the temple town, was founded by Sage Madhwacharya (a proponent of 'Dvaita' or dualism philosophy) in the thirteenth century. It has the famous Sri Krishna temple surrounded by two Shiva temples and eight monastic establishments (*mathas*). As the place had a significant Brahmin population (10 percent in 2011), the frequent religious ceremonies and several temples resulted in the acquisition of culinary skills by people who migrated to places all over the country, establishing fast food restaurants (Udupi). Later, the Bunts community entered the fray to establish restaurants in faraway areas (Iverson and Raghavendra 2006).

The second wave of migration took place when the enterprising members of the 'Goud Saraswat' community started commercial banks, which was followed by the entry of the Bunts and Brahmins. Curiously, the small place became a cradle for banking activity with four of the nationalized banks emerging in a region within the diameter of 50 km. The first two banks, Canara Bank and Corporation Bank, started in 1906, and Syndicate Bank and Vijaya Bank came into existence in 1926 (Agarwal 2023). Interestingly, Corporation Bank was started by a Muslim, but was later taken over by a Goud Saraswat Brahmin. As there were no big businesses, the banks mobilized deposits from households and small businessmen by nudging them to save some part of their earnings and collecting the deposits through agents on a daily basis. They lent money to small traders. Besides creating a network of rural branches in the region, they initiated innovative schemes like the 'Pigmy' deposit scheme of Syndicate Bank and 'Nitya Nidhi' scheme of Canara Bank, which created a door-to-door banking service for the daily wage earners, farmers and small traders, nudging them to save some, howsoever small, part of their earnings. This helped in achieving financial inclusion. Profitability was achieved by minimizing the transaction cost

by hiring young girls and persons from the community immediately after they had passed the matriculation examination and training them to avoid labor militancy in head offices and learning customer orientation in branches. It had a spillover effect of improving female literacy, increasing the marriage age of girls, and a decline in fertility. The skilled population had an additional channel for migration to the Gulf region, resulting in a large amount of remittances. Thus, the region was characterized by the concentration of community-oriented banking activity. There were five large community-based commercial banks within a diameter of 50 km in the Udupi-Mangalore region, four of which—Canara Bank, Syndicate Bank, Corporation Bank and Vijaya Bank—were large enough to be nationalized. The region had a limited presence of the government, except in schooling and development of road connectivity. The first self-financing private medical college and multi-speciality hospital in the country was established in Manipal, a hilly terrain in the outskirts of Udupi town. An important feature of the two districts is the existence of a large number of private medical and engineering colleges.

An interesting case of decentralized development in the region is seen in the commercial growing of the jasmine flower. The Mangalore Jasmine is a GI-tagged flower extremely cherished by the local community. Father Basil Salvadore Peris, a parish priest, initiated the cultivation of the flower in 1934. Cultivation of the flower has now spread to many parts of Udupi and Mangalore (see Rashmi Gopal Rao 2023). The bushes are grown in places around the houses, and the buds are plucked every morning by women and taken to the collection centres located nearby. As the flowers arrive in the Shankarapura market (near Udupi), the price is set and transmitted to the markets through an android mobile app (<https://www.deccanherald.com/india/karnataka/mallige-on-mobile-3368009>, January 25, 2025). This has ensured financial stability and empowerment of several women in households in the Mangalore- Udupi regions.

Besides Bengaluru—Urban and the two districts of coastal Karnataka, two districts on the Western Ghats—Coorg and Chikamagalur—have shown reasonably high growth. Coorg is located on the foothills of the Western Ghats and is known for its warrior class, language and traditions. Both the districts have a predominantly plantation economy, accounting for 60 percent of the total coffee production in the country and a significant amount of pepper and other spices. As over 70 percent of the coffee produced in the region is exported, the earnings of the local coffee growers depend upon the international prices of coffee.

In contrast to the fast-paced development experience cited above, much of North Karnataka, which includes the districts belonging to the erstwhile Hyderabad-Karnataka (now called *Kalyana Karnataka*) and Bombay-Karnataka (now called *Kittur Karnataka*) regions, has continued to remain backward, thereby creating a serious North-South divide in the state. Activists in the north Karnataka region argue that while the districts under the erstwhile Mysore royalty have progressed, mainly due to their political domination and more focused development efforts, including public spending on infrastructure and services, the rest of the region has suffered neglect. The fact, however, remains that backwardness in the region is rooted in historical legacy and poor structure of incentives arising from the nature of institutions.

3.4. Human Development Index in the Districts of Karnataka

As mentioned earlier, while Karnataka's performance in economic growth and per capita NSDP has been commendable, its record in the Human Development Index (HDI) has not been so noteworthy. The district-wise analysis for 2019-20 shows that the situation is precarious in most of the northern districts of the state (Table 9, Figure 3). The HDI is estimated by taking the geometric mean of the three-dimensional indices, namely, Index of Health, Index of Education, and Index of Income.³ The estimated HDI classified in terms of the final values for four quarters in Table 9 shows that the HDI composite index is almost identical to the Income Index as it carries one-third weight and the values of other health and education indices are not high. However, a closer examination of the Health and Education indices shows some differences. By and large, the districts with a low-income index also exhibit low educational and health achievements. The two high-income districts in the higher quartile group, Shivamogga and Dakshin Kannada, fall in the lowest quartile group in the Health Index. Even Bengaluru-Urban, which has the highest value in the Income Index, falls in the second quartile group in the Health Index. Among the lowest income quartile group, the districts of Bidar and Kalaburagi fall in the highest quartile in the Health Index.

Table 9: Human Development Index in the Districts in Karnataka, 2019-20

	<i>Sl. No</i>	<i>District</i>	<i>Income Index</i>	<i>Health Index</i>	<i>Education Index</i>	<i>HDI</i>
Poorest	1	Yadagiri	0.533	0.764	0.382	0.538
	2	Kalaburagi	0.514	0.726	0.42	0.539
	3	Raichur	0.535	0.742	0.448	0.562
	4	Haveri	0.533	0.762	0.446	0.566
	5	Davangere	0.538	0.749	0.508	0.589
	6	Koppal	0.524	0.765	0.52	0.593
	7	Chitradurga	0.541	0.757	0.519	0.597
	8	Vijayapura	0.532	0.771	0.524	0.599
Lower-Middle	9	Bidar	0.527	0.772	0.532	0.600
	10	Belagavi	0.529	0.751	0.546	0.601
	11	Chamarajanagar	0.573	0.776	0.488	0.601
	12	Dharwad	0.601	0.708	0.533	0.610

contd

3. $HDI = (I_{health} * I_{Education} * I_{Income})^{1/3}$.

The dimension index is estimated as: (Actual value – minimum value)/ maximum value – minimum value).

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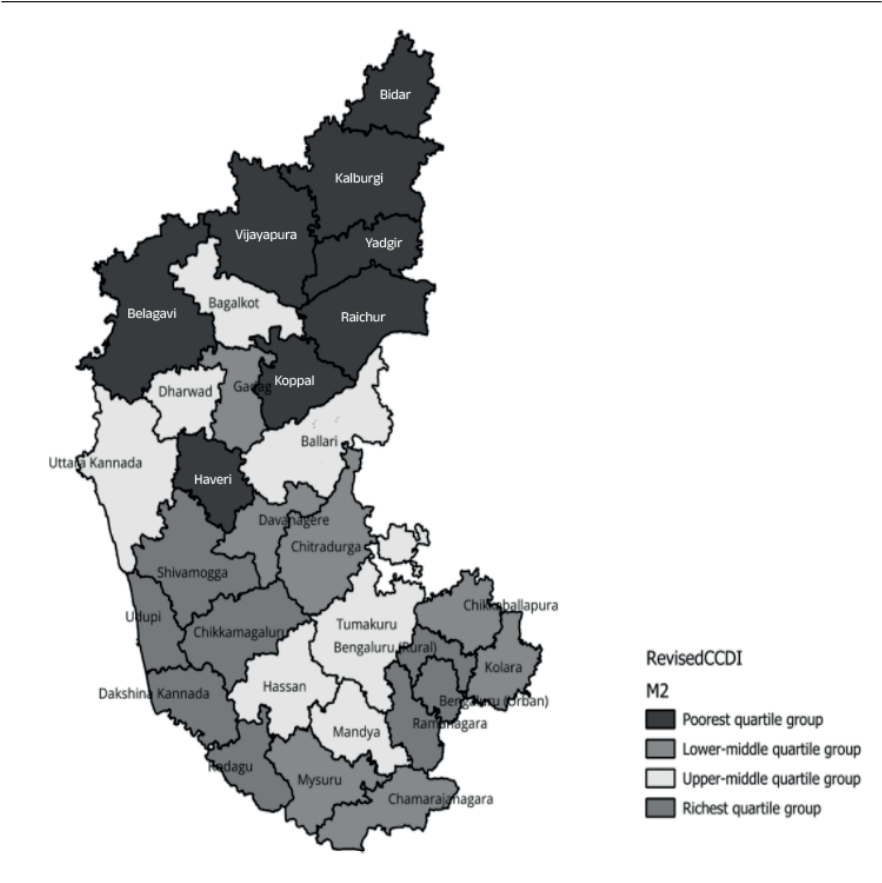
	13	Ballari	0.601	0.73	0.523	0.612
	14	Tumakuru	0.606	0.759	0.506	0.615
	15	Gadag	0.559	0.767	0.563	0.623
Upper-Middle	16	Hassan	0.598	0.769	0.528	0.624
	17	Mysuru	0.577	0.759	0.557	0.625
	18	Chikkaballapur	0.558	0.768	0.577	0.628
	19	Bagalkote	0.594	0.774	0.542	0.629
	20	Uttara Kannada	0.586	0.775	0.556	0.632
	21	Shivamogga	0.623	0.755	0.547	0.636
	22	Kolar	0.567	0.771	0.599	0.640
Richest	23	Ramnagara	0.615	0.761	0.565	0.642
	24	Bangalore Rural	0.625	0.762	0.557	0.643
	25	Mandya	0.607	0.764	0.575	0.644
	26	Kodagu	0.616	0.768	0.619	0.664
	27	Udupi	0.684	0.76	0.566	0.665
	28	Chikkamagaluru	0.672	0.77	0.576	0.668
	29	Dakshina Kannada	0.720	0.757	0.595	0.687
	30	Bangalore Urban	0.770	0.77	0.678	0.738
		State	0.6340	0.759	0.5550	0.6440
		1ST QUARTILE	0.536	0.757	0.519	0.599
		2ND QUARTILE	0.582	0.763	0.544	0.623
		3RD QUARTILE	0.613	0.770	0.566	0.641

Source: Karnataka Human Development Report, 2022, Government of Karnataka.

Note: Income scores are calculated by using Per Capita Net District Domestic Product of current prices, for 2019, based on UNDP methodology.

The results of the spread of districts in education performance are similar, though less pronounced as compared to the Health Index. There are three districts in the high-income quartile, which are placed in the second quartile in the Education Index (Ramanagara, Shivamogga, and Bengaluru–Rural). Similarly, three districts in the lowest income quartile group fall in the highest Education Index group (Chikkaballapur, Kolar, and Mysore). This analysis helps to identify the focus areas for policy intervention to reduce disparities.

Figure 3. Revised CCDI 2019: District-wise



Source: Karnataka Human Development Report, 2022, Government of Karnataka.

3.5. High-Powered Committee for Redressal of Backwardness

The developmental pattern in the state seen today has its roots in the states’ reorganization based on linguistic consideration in 1956. As mentioned earlier, Karnataka was reorganized by combining the Kannada-speaking parts of Bombay Presidency, parts of the territory ruled by the Nizam of Hyderabad, the West Coast areas, which were under Madras Presidency, the state of Coorg, which was directly under the British, and the princely state of Mysore. When reorganized, the state was called the Mysore state, but was later renamed as Karnataka in 1973. These different constituents amalgamated into the state had widely varying economic, social, cultural, and physical characteristics. With their vastly different endowments, infrastructure, governance systems, and the nature of institutions, they represented significant differences in the

level of social and economic development. After economic liberalization, as private investments flowed into areas with better infrastructure and services, the divergence became much more pronounced. Analysing this diversity is important for understanding the dynamics of development in Karnataka.

Concerned about the widening regional imbalances in Karnataka, the government appointed a High-Powered Committee (HPC) to recommend measures to redress economic imbalances in the state. The Committee was chaired by Dr D.M. Nanjundappa, the then Deputy Chairman of the State Planning Board in 2000. The Committee took the *taluk* (block) as the unit of analysis and worked out the Composite Index of Development using 35 development indicators relating to the agriculture, industry, services, education, and healthcare sectors to construct a composite index of development. Of the 175 *taluks*, 114 were considered backward, comprising 39 most backward, 40 more backward, and 35 backward *taluks*. In terms of the geographical spread, 59 backward *taluks* were located in northern Karnataka, in the Kalyana Karnataka and Kittur Karnataka regions, and 55 were in southern Karnataka, located in the Mysore and Bangalore divisions. The Committee recommended an additional expenditure of Rs 31,000 crore over a period of eight years from 2004 to 2012, of which Rs 15,000 crore were to be spent on implementing the regular plans and an additional Rs 16,000 crore were meant for a special development plan in the four divisions of Kalaburagi (Gulbarga), Belagavi, Mysore, and Bengaluru in the ratio of 40 percent, 20 percent, 15 percent, and 25 percent, respectively.

There are a number of methodological shortcomings with the way backwardness was measured by the HPC. First, per capita income is not one of the indicators for measuring development or backwardness. Second, except for the literacy rate, none of the indicators represents development output/outcomes; all the indicators considered relate to inputs and infrastructure. Third, in the framework adopted by the HPC, the private sector does not have any role and the HPC recommendations do not touch upon the policies to incentivize participation of the private sector in development. Fourth, allocation of additional funds was not related to infrastructure deficits in the *taluks*. The sector-wise break-up shows that over 60 percent was to be spent on the three sectors of agriculture, rural development, and irrigation, while the sectors of education, healthcare, and connectivity received much less focus. Fifth, even though the *taluk* was taken as the unit for determining backwardness, allocation of funds for its redressal was done to the divisions, not even to the districts, by aggregating the estimated Comprehensive Composite Development Index of *taluks* to districts and those of the districts to divisions. This left considerable scope for political intervention in allocation and spending. Furthermore, allocation to the sectors was not based on any estimate of infrastructure and services deficits.

The government of Karnataka, after a detailed examination of the report and bowing to the pressure from the backward regions, decided to introduce

a Special Development Plan (SDP) from 2007-08, which has continued since then. From 2007-08 to 2023-24, the state government has incurred an additional expenditure of Rs 30,611 crore in current prices, but this works out to Rs 14,195.59 crore in constant prices, which amounts to 45.8 percent of the recommended amount by the HPC. In terms of its impact, district-wise analysis shows that there is hardly any change from the pattern of development over the years, as seen from Table 9. In terms of per capita incomes, as mentioned earlier, the intra-state inequalities have shown a steady increase, as reflected in the fact that the coefficient of variation and the number of districts above the average per capita incomes have diminished from 10 to 4.

3.6. Extreme Backwardness: Case of the Kalyana Karnataka Region

According to the HPC, among the four divisions in Karnataka, Kalaburagi was found to be the most backward. In this division, of the 32 *taluks*, 22 were the most backward, 5 were more backward, and 2 were considered backward, while only 3 were identified as forward *taluks*. Considering the extreme backwardness in the region, the Kalyana Karnataka Regional Development Board was constituted in 2013 by amending the Constitution. The objective of the Board was to accelerate holistic development of the backward regions of the state, represented by 41 Assembly constituencies, and achieve a balanced development of the region on par with the developed districts of the state. A number of development works were initiated by the Board in five sectors, namely, agriculture, industry, physical infrastructure, social infrastructure, and financial and technical infrastructure. During the period 2014-15 to 2024-25, the state government allocated Rs 19,778 crore for various projects in the five sectors and actually incurred an expenditure of Rs 11,174 crore.⁴ The state cabinet has decided to allocate Rs 5000 crore every year for the next four years. The Legislature passed a resolution on 16 September 2024, demanding that the Union Government allocate an equal amount of funds as a special grant, which has not materialized so far. Despite these efforts, not much improvement has been seen in terms of redressing the backwardness in the region.

4. Government Policy in Accelerating Growth

The important features of Karnataka's development are as follows:

1) There has been a spectacular growth in per capita income over the years. From being a less than average per capita income state in the early 1990s, Karnataka has recorded the highest growth during the last two decades to achieve the second highest ranking in 2022-23.

4. See <https://timesofindia.indiatimes.com/city/bengaluru/10-years-of-special-status-kalyana-karnatakas-mixed-progress-in-development/articleshow/113607245.cms>

2) The growth of Gross Value Added (GVA) in the state was propelled mainly by the services sector, while the shares of both agriculture and industry have declined over the years. This has implications for employment, skill requirements, and migration. With a concentration of 46 percent of the workforce, agriculture contributing less than 10 per cent of GVA, and with the services sector accounting for 33.7 percent of the workforce, which contributes nearly 70 percent of the GVA, there is a high degree of inequality and disproportionate demand for urban infrastructure.

3) The increased income levels have not been translated in terms of improvement in human development. Many of the human development indicators show that the state lags behind many states in the headcount measure of poverty, education, and health indicators.

4) An important reason for this imbalance is the uneven level of growth in incomes across regions within the state. While in the early 1990s, there were as many as ten districts above the state average per capita income, in 2022-23, there were only three districts besides Bengaluru (Urban). In other words, the economic growth in the state is concentrated in the metropolitan city of Bengaluru, the two coastal districts of Dakshin Kannada and Udupi, and the coffee-growing district of Chikamagalur. There has been a steady increase in the coefficient of variation in inter-district per capita incomes from 0.36 in 2011-12 to 0.43 in 2022-23.

The role of the state government's policy in the development of different sectors of the state is briefly discussed below.

4.1. Agriculture

What was the role of public policy, in general, and that of the state government in the developmental process in Karnataka, in particular? Answering this is important for initiating policy interventions to redress backwardness in large parts of the state, which continue to suffer from lack of development in many respects. It is also important to sustain the development process by creating employment avenues for an overwhelming proportion of population that depends on agriculture for livelihood and earns meagre incomes. The excessive concentration of employment in agriculture has brought about a sharp difference in rural-urban incomes and put pressure on the state to impart education, skill development, and healthcare to a very large chunk of the population. Drawing the overwhelming proportion of low income-earning agricultural labor in the labor-intensive manufacturing and services sectors will be a challenge in a situation where the elasticity of employment in industry has shown a decline amid the spread of Artificial Intelligence. At the same time, with less than one-third of the workforce employed in the high-paying services sector, and increasing income inequality creating heavy demands on urban infrastructure and services, the state government has not been able to satisfactorily meet the

concomitant challenges. The fast-paced development of the metropolitan city of Bengaluru has placed heavy demands on various semi-skilled services, leading to higher wages and drawing heavy migration of people to the city, not only from the rural areas of the neighboring states but also from the northern and eastern states. The consequences of these developments include excessive pressure on urban infrastructure and services such as roads, housing, public transport, water supply, and garbage disposal. The state government and municipal corporation are neither able to predict and plan, nor have the financial resources to meet the challenges adequately. It is often pointed out that the infrastructure woes in Bengaluru city are the direct result of this pattern of development and the difficulties faced by the state in responding to the emerging situation. Not surprisingly, these problems in Bengaluru city have become a constant source of complaints and criticism. With high skill and technical requirements for the employees joining the workforce, coupled with labor-saving modern technological developments, the state needs to make significant changes to its policy framework to meet future challenges.

In Karnataka, traditionally, two prominent castes have been numerically strong and politically dominant—the Vokkaligas in south Karnataka and the Lingayats in the north. Vokkaligas are predominantly farmers and hence the policy focus for them has been on agriculture and irrigation. The Krishna Raj Sagar dam was built across the Cauvery river during the period 1911-31. At the time of the state's reorganization, the net sown area in the state was 7.5 lakh hectares, and 71 percent of the area under irrigation was in south Karnataka. While the focus on irrigation continued, the dominant political class in north Karnataka (Lingayats) demanded larger investments in irrigation. Consequently, the ratio of net irrigated areas in the state increased from 7.5 lakh hectares to 24.8 lakh hectares by 2020-21. Large investments were made to enable the northern districts of the state to catch up with the southern part, and the ratio of irrigated area to gross cropped area in northern Karnataka increased from 3 percent at the time of the state's reorganization to 24.3 percent, whereas, in the southern part, it increased from 16.5 percent to 25.6 percent (Government of Karnataka 2002). The focus on investment in irrigation has continued and in 2020-21, the ratio of gross irrigated area to gross cropped area was 40.7 percent (Government of Karnataka 2023).

The focus on irrigation and the ushering in of the Green Revolution in the late 1960s and early 1970s helped increase food output in the state, but the sector stagnated in the later years. While the advocacy for larger investments in the sector has continued, the Value Added in the sector in the total Gross Value Added in the state declined from 15.5 percent in 2005-06 to 8.5 percent in 2023-24. A considerable part of the increase in Value Added in agriculture was not due to the growth in foodgrains or sugarcane, the two highly water-intensive crops grown in the river deltas, but the growth in horticulture and animal husbandry. The inability to levy charges on irrigation water and supply of free electricity

to the farmers led to the adoption of predominantly water-intensive crops in the river deltas and the use of excessive and unbalanced chemical fertilizers has enhanced salinity, and degraded the soil health, and fertility, thereby creating the problem of sustainability and stagnation in the food sector. The farmers in the delta have no incentive to change the cropping pattern. There is an attempt to incentivize horticulture in the dry regions of the state and according to the *Economic Survey 2024-25*, it has contributed about a third of the income from agriculture and allied activities. The areas in the Bengaluru-rural district have adopted floriculture. Plantation crops like coffee and spices are important in the Kodagu and Chikamagalur districts. The focus on dairying has helped rural households supplement their incomes, and fisheries are important in the coastal areas of the state. The major concern, however, is that about 46 percent of the workforce is in the sector, which accounts for just 8.5 percent of the income. More importantly, the policy of free power and water for irrigation threatens to foster stagnancy in farm incomes, and decline in agricultural productivity and sustainability.

4.2. Industry

The contribution of industry in the GSVA has shown a steady decline from 29 percent in 2011-12 to 20 percent in 2022-23. This is partly because, unlike Maharashtra, Gujarat, and Tamil Nadu, manufacturing activity is not very significant in Karnataka. The only major industry in the state, Visveswaraya Iron and Steel Industry, located in Bhadravati in Shivamogga district, has fallen sick. There are a few defense enterprises in the public sector like Hindustan Aeronautics Limited (HAL), Bharat Electronics limited (BEL), Bharat Earth Movers Limited (BEML), National Aeronautics limited (NAL), and some state government-run enterprises engaged in silk and soap production. More recently, some modern industries in aerospace, electronics, automobiles, biotechnology, and pharmaceuticals have emerged. Other than these, much of the industrial activity is in the Micro, Small and Medium Enterprises (MSMEs). Generally, the focus in Karnataka has been more on the modern services sector. This is partly because the land in and around Bengaluru is more expensive and land acquisition is difficult. Until recently, agricultural land was not allowed to be used for non-agricultural purposes. Amendments to the Karnataka Land Reforms Act in 2020 removed restrictions on non-agriculturists purchasing agricultural land and increased the maximum land ownership limit in 2020, but the high cost of land near urban agglomerations is a major deterrent in industrialization. Much of the manufacturing activity in the state is concentrated in and around Bengaluru, and to some extent in Mangalore and Belgaum. Bellary and surrounding areas have some steel industries aligned to mining activity.

Karnataka brings out an industrial policy every five years. The latest industrial policy for 2025-30 was announced at the Global Investors' Meeting held during

11-14 February 2025 after detailed consultations with the stakeholders. The five-year policy came into effect on 8 February 2025. The objectives were stated as: accelerating the growth rate to 12 percent in the manufacturing sector; providing flexibility in the incentives to stimulate interest among the investors across sectors; creating employment opportunities for 2 million workers; and becoming a pioneer in sustainable industrialization by incentivizing green initiatives through sustainability-linked incentives. In order to promote the balanced growth of industry across the state, the government has been formulating the policy of differential incentives for investments depending upon the backwardness of the districts. The latest policy announcement proposes to give differential capital subsidy or production-linked incentives, depending upon the regions classified into three investment zones. Additional incentives are given to the units located in the *taluks* classified as ‘most backward’ as per the HPC report of 2002.

Despite the incentives announced by the government from time to time, large investments in manufacturing in the state have not been forthcoming and most investments have been made in areas surrounding Bengaluru, even as this is placed under Zone 3, which has the least incentives. The districts in Kalyana Karnataka and Kittur Karnataka fall in the Zone 1 category, where investments are eligible to get the highest incentive in the form of capital subsidy or production-linked incentive. Yet, investments flow mainly to Bengaluru and the surrounding areas, even as its land and labor cost disadvantages are high. Besides the ecosystem, the pool of skilled labor and markets seem to make the region more attractive than others. Furthermore, the differential in incentives is not significant enough to wean the investors towards backward districts in the backward regions (Ravindra 2023).

4.3. *Spectacular Growth of the Services Sector*

The impressive growth and development of Karnataka is predominantly attributable to the services sector. As mentioned earlier, services contributed to almost 70 percent of the GSVA in 2023-24, and the share continues to grow. The ushering in of economic liberalization provided the necessary impetus for the IT and ITES services to record spectacular growth in the state. Unlike manufacturing, the modern services sector does not require too much physical space and does not have the same visibility. The 1991 reforms abolished the license permit raj and since there were no laws governing or controlling the services sector, governmental interference was minimal, and the sector flourished in an unregulated environment. The success of IT and ITES was entirely due to private initiatives, but the government did have a promotional role.

Bengaluru was a preferred destination for investment in the modern services sector due to its inherent advantages (see Box 1). It had a favorable ecosystem with a large number of high-tech institutions, a large pool of qualified technical

personnel, and a steady flow of engineering graduates from a large number of colleges, a salubrious climate, receptive bureaucracy, an active promotional role played by the government, which responded to the infrastructure requirements of the sector, and liberalized labor regulations for the IT and ITES enterprises. The emergence of two major companies founded by local entrepreneurs in the Information Technology sector (Infosys and Wipro) helped create a conducive ecosystem, facilitating the growth momentum. The creation of the electronic city and important institutions like the Indian Institute of Information Technology (IIIT), more liberal labor laws, and the availability of a large pool of technical personnel, created externalities that were attractive enough for multinationals to locate their branches in the vicinity.

While the state government's promotion of the modern services sector has helped, the spectacular growth of the sector is predominantly due to the private sector initiative. The fast growth of the sector has resulted in the emergence of many technical institutions; migration of technically qualified people, creating a new class of high-net-worth individuals; a significant increase in exports; and the high demand for fast-moving consumer goods and its multiplier effect on economic activity and incomes. This prosperity has also resulted in the demand for support services, increase in wages, and migration of semi-skilled and care workers. The result of this has been an increase in the prices of real estate, unplanned expansion of settlements, and the heavy demand for urban infrastructure and services, which the Greater Bengaluru Municipal Corporation (Bruhat Bengaluru Mahanagara Palike) has not been able to meet. *The Economic Survey of 2024-25* (p. 169) admits, "...Due to inordinate growth of urban population, sustainability of the primary source of supply of safe drinking water as well as sanitation and drainage in cities and towns are posing a serious challenge." The estimated population of Bengaluru city is 1.4 crore and the vehicle population of 1.21 crore running on the road length of 12,879 km results in severe constraints on transportation. *The Economic Survey* (p. 169) goes on to state, "...Urban Karnataka suffers from services deficiencies in road infrastructure like inadequate road capacity, poor quality of roads... hindering free movement of vehicles and leading to congestion and accidents." Admittedly, the state government's role in economic progress has been more reactive than proactive.

4.4. Public Finance Management and Provision of Services

Karnataka has traditionally been austere in the management of public finances. It may be noted that Karnataka passed the fiscal responsibility legislation even before the Union Government as well as the recommendations of the Twelfth Finance Commission. The state was able to contain its fiscal deficit at less than 3 percent of GSDP except in 2020-21 and 2021-22, the years impacted by the COVID pandemic, but managed its fiscal deficit well within the relaxed limit.

The state had revenue surplus since the passing of the Fiscal Responsibility and Budget Management (FRBM) Act, except in the COVID-affected years. However, since 2023-24, the state has not been able to generate revenue surpluses due to the implementation of the five guarantees. The debt to GSDP, at about 23 percent of GSDP, is also well within the indicative path of 27.2 percent set by the Fifteenth Finance Commission. Similarly, the interest payment to revenue ratio at 12.8 percent in 2023-24, is much lower than not only the all-state average, but also of all the southern states.

The policy priorities of the state are best seen in the pattern of public expenditures. Tables 10 and 11 present the composition of expenditures in the state relative to GSDP and total expenditures. It is seen that the state has been able to contain its deficit by reducing the share of expenditure in GSDP, by about one percentage point, from 12.3 percent in 2010-11 to 11.4 percent in 2023-24 (Revised Estimates—RE). This was achieved mainly by compressing capital expenditure from 2.4 percent to 1.6 percent. In terms of functional categories, it is seen that the expenditures as a ratio of GSDP to sectors like education, health and family welfare, irrigation and flood control, and general administrative services to GSDP have been reduced substantially. The share of education in total expenditures declined from 18.7 percent in 2000-01 to 10.9 percent in 2023-24 (RE) and that of health and family welfare declined from 5.4 percent to 4.9 percent. Similarly, the allocation to irrigation and flood control, which is mainly in the nature of maintenance expenditure, declined from 10.7 percent in 2000-01 to 6.5 percent in 2023-24. In contrast, the expenditure on social security and welfare, which comprises various transfer payments, increased from just about 0.3 percent of GSDP in 2000-01 to 1.4 percent in 2023-24, and as a ratio of the total expenditure, the increase was from 2.8 percent to 11.9 percent. In fact, there was a sudden jump in this item of expenditure from 6.6 percent in 2022-23 to 11.9 percent in 2023-24, mainly due to the implementation of five guarantees promised in the Election Manifesto.

TABLE 10. Share of State Expenditure in GSDP in Karnataka (%)

Expenditure Item	2000-01	2010-11	2021-22	2022-23	2023-24 RE	2024- 25BE
I. <i>Developmental Expenditure</i>	8.07	9.12	9.39	8.35	8.03	8.28
A. <i>Social Services of which:</i>	4.18	4.52	4.67	4.03	4.11	4.60
1. Education, Sports, Art and Culture	2.27	2.05	1.54	1.42	1.24	1.42
2. Medical, Public Health and Family Welfare	0.65	0.51	0.77	0.54	0.56	0.57

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4.	Water Supply and Sanitation	0.26	0.21	0.34	0.27	0.28	0.32
5.	Housing	0.19	0.17	0.18	0.17	0.10	0.11
6.	Urban Development	0.06	0.24	0.39	0.40	0.03	0.07
7.	Social Welfare and Nutrition	0.33	0.73	0.73	0.77	1.36	1.25
	Labour and Employment	0.04	0.05	0.05	0.03	0.03	0.06
7.	Others*	0.37	0.56	0.67	0.43	0.51	0.81
	<i>B. Economic Services (1 to 9)</i>	3.89	4.60	4.72	4.32	3.91	3.68
1.	Agriculture and Allied Activities (i to xii)	0.78	0.89	1.04	0.75	0.80	0.81
2.	Rural Development	0.30	0.27	0.42	0.50	0.37	0.36
3.	Special Area Programmes	0.01	0.09	0.12	0.16	0.14	0.13
4.	Irrigation and Flood Control	1.29	0.95	1.06	1.00	0.75	0.67
5.	Energy	0.61	1.07	0.89	0.64	0.82	0.80
6.	Industry and Minerals (i to iii)	0.25	0.13	0.09	0.10	0.06	0.07
7.	Transport and Communications (i + ii)	0.45	0.81	0.74	0.88	0.58	0.54
8.	Science, Technology and Environment	0.20	0.38	0.36	0.31	0.39	0.31
II.	<i>Non-Developmental Expenditure</i>	3.69	2.66	3.19	3.17	3.12	3.39
	(General Services) (A to F)	4.24	5.15	5.05	4.57	4.18	3.92
	of which: Interest Payments	1.55	1.03	1.25	1.23	1.19	1.36
III.	<i>Grants-in-Aid and Contributions of which</i>	0.35	0.54	0.33	0.24	0.27	0.24
	Compensation and Assignments to Local	0.35	0.54	0.33	0.24	0.27	0.24
	Total Revenue Expenditure	10.84	9.88	10.51	9.29	9.81	8.35
	Total Capital Disbursements	1.26	2.44	2.40	2.47	1.60	3.56
	Total Expenditure	12.11	12.33	12.92	11.77	11.42	11.91

Source: Budget Documents of Karnataka State.

Note: B.E: Budget Estimate; RE: Revised Estimate.

TABLE 11. Composition of State Expenditure in Karnataka (%)

Expenditure Item	2000-01	2010-11	2021-22	2022-23	2023-24 RE	2024- 25BE
<i>I. Developmental Expenditure</i>	66.66	74.03	72.71	71.01	70.31	69.52
<i>A. Social Services of which:</i>	34.51	36.69	36.16	34.25	36.04	38.63
1. Education, Sports, Art and Culture	18.72	16.64	11.96	12.04	10.90	11.92
2. Medical, Public Health and Family Welfare	5.40	4.15	5.96	4.59	4.93	4.76
4. Water Supply and Sanitation	2.17	1.74	2.64	2.30	2.41	2.73
5. Housing	1.55	1.36	1.37	1.48	0.84	0.89
6. Urban Development	0.48	1.98	3.01	3.38	0.26	0.56
7. Social Welfare and Nutrition	2.76	5.89	5.67	6.55	11.93	10.46
Labour and Employment	0.36	0.37	0.39	0.23	0.30	0.52
7. Others*	3.07	4.57	5.16	3.69	4.46	6.78
<i>B. Economic Services (1 to 9)</i>	32.14	37.34	36.55	36.75	34.27	30.89
1. Agriculture and Allied Activities (i to xii)	6.45	7.24	8.07	6.37	6.97	6.80
2. Rural Development	2.46	2.22	3.28	4.21	3.28	3.00
3. Special Area Programmes	0.08	0.77	0.91	1.32	1.24	1.05
4. Irrigation and Flood Control	10.66	7.74	8.18	8.47	6.53	5.59
5. Energy	5.04	8.67	6.86	5.43	7.21	6.73
6. Industry and Minerals (i to iii)	2.09	1.06	0.71	0.83	0.56	0.58
7. Transport and Communications (i + ii)	3.73	6.58	5.73	7.50	5.07	4.52
8. Science, Technology and Environment	1.62	3.07	2.81	2.62	3.42	2.62
<i>II. Non-Developmental Expenditure</i>	30.49	21.55	24.72	26.92	27.36	28.49
(General Services) (A to F)	34.99	41.76	39.12	38.83	36.61	32.88
of which: Interest Payments	12.81	8.37	9.71	10.42	10.46	11.42
<i>III. Grants-in-Aid and Contributions of which</i>	2.85	4.42	2.57	2.07	2.33	1.99
Compensation and Assignments to Local	2.85	4.42	2.57	2.07	2.33	1.99
Total Revenue Expenditure	89.55	80.18	81.39	78.99	85.95	70.10
Total Capital Disbursements	10.45	19.82	18.61	21.01	14.05	29.90
Total Expenditure	100.00	100.00	100.00	100.00	100.00	100.00

Source: Budget Documents of Karnataka State.

Note: B.E: Budget Estimate; RE: Revised Estimate.

The sharp reduction in the allocation to education and healthcare is a matter of concern. It will constrain the ability of the children from the less affluent families availing of education in government schools and will have adverse effects for not only the future development potential but also its even spread. The educational performance in the backward regions of the state is extremely poor, as seen in the public examination results and the surveys conducted by the NGO, Akshara Foundation. In 2023-24, the Foundation carried out a survey of school children in the rural areas in all except the four districts of Bengaluru-Urban, Dakshin Kannada, Udupi, and Shivamogga,) which exhibit better educational standards than the other districts in the state. The percentage of children in grades 4, 5, and 6 answering 8 out of 20 questions in mathematics of the previous grade correctly was the lowest in all the seven districts in the Kalyana Karnataka division (Table 12). These results conform to the pattern shown in the Human Development Index presented earlier. These are the districts where it is extremely important to provide high-quality education to break the institutional barriers. The cut in budgetary allocation to education was done partly by not filling in the vacancies of teachers and the teacher shortages are addressed by making ad-hoc appointments of local teachers, called ‘guest teachers’, without imparting any training to them. It is reported that in 2024-25, 43,000 ‘guest teachers’ were appointed in the state and in 2025-26, the government proposed to fill 51,000 such positions.⁵ The health sector faces similar issues.

In keeping with the promise made during the 2003 Assembly elections, the state government implemented five subsidy and transfer payment schemes for the targeted groups from 2023-24. These five schemes are: (i) “Shakti” scheme providing free travel for women in state transport buses within Karnataka; (ii) “Anna Bhagya” or free supply of 5 kg of foodgrains every month to the beneficiaries in addition to the 5 kg provided by the Government of India; (iii) “Gruhajyoti” scheme which, grants exemption from paying for electricity consumption for any household if its consumption is less than 200 units in a month; (iv) “Gruha Lakshmi” scheme, in which all women heads of the households are eligible to get a payment of Rs 2000 per month; and (v) “Yuva Nidhi” scheme, in which an unemployment allowance of Rs 3000 per month is given to registered unemployed graduates and Rs 1500 per month to unemployed diploma holders for a period of two years or until they get employed. These five guarantees are estimated to cost Rs 52,000 crore in a year and in 2023-24, the total amount spent on them was Rs 39,825 crore. Thus, the trend in public spending is to reduce capital expenditure and that on education and healthcare, partly to conform to the FRBM targets and also to allocate money for immediate electoral gains by spending on subsidies and transfers to identified groups of population.

5. <https://www.newindianexpress.com/states/karnataka/2025/May/24/karnataka-to-appoint-51000-guest-teachers-for-2025-26-academic-year>.

TABLE 12. Children Answering 8/20 Maths Questions of the Previous Year

<i>District</i>	<i>Grade 4</i>	<i>Grade 5</i>	<i>Grade 6</i>
Tumakuru	88	83	76
Belagvi	88	93	78
Chakkamagaluru	85	79	74
Hasan	85	78	76
Bengaluru (Rural)	85	77	72
Dharwad	84	79	75
Haveri	83	75	71
Kodagu	82	71	63
Vijayapura	81	74	68
Chikkodi	81	74	72
Ramanagara	81	75	65
Bagalkot	81	74	73
Mysuru	81	69	63
Madhugiti	79	75	71
Mandya	79	72	68
Gadag	75	66	62
Kolar	73	67	63
Chamarajanagar	70	64	59
Davanagere	67	61	56
Chikkaballapur	67	61	56
Raichur	60	53	56
Bidar	59	52	52
Yadgir	58	53	55
Koppal	55	51	53
Kalaburagi	55	48	47
Chitradurga	53	49	47
Vijayanagar	48	44	47
Ballari	49	41	41

Source: Gram Panchayat Level Maths Contests Report 2024-24; Akshara Foundation, 2025.

Redistribution is a legitimate government activity as the markets do not undertake this. However, it is important for the states to keep in mind three important factors in determining the volume of expenditures to be spent on redistribution. First, the state government must consider the opportunity cost of funding such programs and distortions in the priorities arising out of such decisions. Second, it must examine whether there are other and more effective

policy instruments that can achieve the intended objectives and finally, if it has to redistribute, it is better to make direct cash transfers rather than subsidizing commodities and services to avoid changing relative prices and allocative decisions. Of course, electoral budget cycles are not an unknown phenomenon in the country and the recent phenomenon of expanding transfers and subsidies at the cost of spending on basic public services is disturbing.

5. Conclusion

Karnataka's development experience presents a contrasting picture. While the state has experienced phenomenal growth to become the second highest per capita income state among the large states, its human development record has a lot of catching up to do. The growth acceleration in the state is led by the services sector, which creates an imbalance in the employment scenario. The stagnant agricultural sector and declining manufacturing, in which an overwhelming majority of workers are employed, receive meagre incomes while the incomes of those in the prosperous services sector are substantially higher. This creates severe pressure on urban infrastructure and services. The most important concern in Karnataka is that economic prosperity is confined to Bengaluru-Urban, two coastal districts, and the coffee growing district of Chikamagalur. The remaining districts, particularly those joining the state from the erstwhile Hyderabad-Karnataka and Bombay-Karnataka regions, suffer severe backwardness in both per capita income as well as human development.

A detailed analysis of the growth process in the state reveals that the development process witnessed in the more prosperous districts is primarily due to the activities of the private sector while the government's role has been confined mainly to promotion and reacting to the emerging concerns rather than planning and providing the necessary impetus for growth. There is enough evidence to show that government policies have been mainly reactive to meeting the increasing demand for infrastructure creation and regulation, rather than proactive in attracting investments for creating the required ecosystem to boost all-round growth in the state. Not surprisingly, we see unplanned urbanization and enormous stress on inadequate infrastructure and services. With the stretched urban limits in and around Bengaluru, the government finds the existing governance system for the city to be inadequate and proposes to adopt a two-tier municipal structure similar to that implemented in the cities of Madrid (Spain), Santiago (Chile), Manila (The Philippines), and Hyderabad and Chennai in India.⁶

6. Bird and Slack (2007) discuss several alternative models of urban governance and conclude that no one size fits all for all cities or for even the same city in different times. See also Rao and Bird (2011).

The development experience of coastal Karnataka underlines the importance of the private sector's role in not only accelerating growth but also ensuring its fair distribution and promoting human development. In contrast, the experience in the erstwhile Hyderabad-Karnataka and Bombay-Karnataka regions shows that even when the state plays a proactive role, stagnancy and backwardness persist if the institutions and governance systems are not incentive-compatible. The situation in the Cauvery river delta, where there has been a lot of focus on agriculture and irrigation, is similar. The provision of free water and electricity to the farmers has robbed them of the incentive for crop diversification and optimal water use, resulting in stagnancy due to deteriorating soil health, excessive use of fertilizers, and declining productivity. This outcome underlines the importance of developing viable institutions and that achieving balanced development necessitates not just the provision of infrastructure and services but even more importantly, a reform of institutions to enable them to benefit from various incentives.

A matter of serious concern is the influence of electoral politics that often distorts the policy priorities of the state government. While the state has, by and large, adhered to the fiscal discipline in containing deficits and debt even in the wake of increasing subsidies and transfers, this has been done by displacing productive expenditures on the creation and maintenance of physical infrastructure, and even more important, in education and healthcare. This will have long-term adverse effects on both growth and distribution.

While the provision of infrastructure merely requires an increase in public investments, reforming institutions to create a favorable structure of incentives is not easy. It requires a good understanding of the nature of institutions as people get used to working in the prevailing institutional environment. This entails significant effort in promoting education right from the pre-primary to the advanced levels. Studies have shown that educational standards in the backward districts of Karnataka are extremely poor, and breaking the vicious cycle of low incomes and poor investments is possible only when the focus of policy is directed towards improvement in education and health; infrastructure provision; urbanization; connectivity; creation of an ecosystem for labor-intensive manufacturing; and responsive governance.

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Comments and Discussion *

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I would like to commend the increasing number of state-focused papers presented at the IPF, as this shift aligns with my long-standing emphasis on the centrality of Indian states in national development. This underscores the importance of granular, state-level analysis, as many Indian states and districts are larger than entire countries.

This paper on Karnataka provides a compelling economic growth narrative driven by modern services such as IT and pharma, while simultaneously noting the uneven progress in human development and rising regional inequality, particularly the heavy concentration of GDP in Bengaluru. The paper offers key historical and institutional insights, including the contrasts between regions like the former Nizam areas and the Mysore Presidency. However, I would like to pinpoint certain broader conceptual issues relevant to national policy. One such issue is the trade-off between “developing places” versus “developing people”. As a comparison with global urbanization patterns, fostering regional economic clusters based on comparative advantage, as seen in Tamil Nadu, could be a pragmatic strategy for Karnataka too, especially for the state’s disadvantaged districts. The recent proliferation of direct welfare transfers in states also has the potential to crowd out investment in physical and human capital.

However, there is a need to question the efficiency of increased public spending on traditional service delivery, as research shows that public services often cost significantly more while delivering inferior outcomes as compared to low-cost private alternatives. Unconditional transfers might, in some cases, provide better welfare outcomes and consumer choice, especially given the persistent inefficiencies in public delivery systems. Improving public service provision is imperative, not only for its direct benefits but also for its broader impact on market quality. Elite exit from public services has reduced the pressure for reform, and provision of better public services would also raise the standards of private providers through competition. Although there are open

* To preserve the sense of the discussions at the India Policy Forum, these discussants’ comments reflect the views expressed at the IPF and do not necessarily take into account revisions to the conference version of the paper in response to these and other comments in preparing the final, revised version published in this volume. The original conference version of the paper is available on NCAER’s website at the link provided at the end of this section.

questions about the optimal mix of public provision and transfers, improving the quality of public services remains essential for equity, efficiency, and institutional credibility. Further, increasing public spending alone is unlikely to improve outcomes unless paired with improved governance and accountability. This has been shown by multiple studies, including an RCT in Indonesia on teacher salary increases (“Double for Nothing”), which found that unconditional salary hikes had no effect on outcomes. However, when financial resources are combined with governance reforms such as teacher incentives, outcomes improve significantly.

This complementarity between resources and governance mirrors findings in foreign aid literature. Aid alone has little effect, but has a positive impact in better-governed environments. This applies to Indian federalism too, as the places that need funds the most are often the worst governed, whether at the national or the subnational level. Thus, there is need for institutional strategies that align funding with governance capabilities. The three pillars of organizational effectiveness include data, personnel, and finances, and the Indian public sector is underperforming across all three.

As regards data, various studies show massive inflation in official learning outcomes, with no child scoring below 65 percent in official data while independent assessments show that most scored below 60 percent. Similar discrepancies have been seen in nutrition data pertaining to Karnataka, underlining a deep administrative failure to report challenges honestly. On the personnel front, the high salaries paid to incumbents limit the potential to hire more frontline staff, thereby leading to an overall shortage of human resources.

As regards finances, policymakers need to move beyond the simplistic debate between welfare ‘freebies’ and capital expenditure, and instead evaluate spending based on a two-dimensional matrix of equity and efficiency. The provision of free electricity for farmers is a textbook example of a policy that has proved to be both inequitable and inefficient, while measures like free bus travel for women potentially scores well on both dimensions by promoting gender equity and economic productivity.

As a concrete proposal, states could invest in independent district-level household surveys to collect annual data on key development indicators. My experience with NITI Aayog and recent work in Telangana—India’s first state to implement such a system—has indicated how these surveys could shift the culture of governance from input-based reviews to outcome-based management. This data could underpin smarter budgeting strategies that combine principles of equality, equity, and effectiveness. Sectoral funding could be allocated as follows: 70 percent based on population equality, 20 percent based on equity (where needs are the greatest), and 10 percent based on demonstrated improvements in outcomes, thereby rewarding better governance. Importantly, such a formula would only be feasible with the use of independent data that cannot be manipulated.

Finally, I would stress that the government plays three roles in the health and education ecosystem: of policymaker, regulator, and provider. However, almost all resources are concentrated on the provider role, which, in turn, creates mistrust of the private sector. By holding district officials accountable for outcomes rather than inputs, the government could reposition the private sector as an ally in service delivery, leading to an improvement in results across both public and private channels.

N.R. Bhanumurthy

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A detailed analysis of Karnataka's economy shows that while the state has emerged as one of India's fastest-growing, its development has remained deeply uneven across regions. This can be attributed to long-standing regional disparities, especially between the prosperous Bengaluru and Mysore divisions, on one hand, and the historically underdeveloped northern regions, such as Kalyana Karnataka and Kittur Karnataka, on the other. Despite Constitutional provisions like Article 371J and past efforts to address backwardness, including the Nanjundappa Committee Report, little progress has been made in closing these gaps. Karnataka's growth has been largely driven by the private sector, particularly in services, which now contribute over two-thirds of the state's GDP. However, the declining capital expenditure, now at just 1.6 percent, is an issue of serious concern, particularly in the context of the broader deterioration in the quality of public expenditure, an area where Karnataka had previously performed well.

Karnataka faces a number of challenges in the area of fiscal federalism. Due to the upward revision of its GSDP in the 2011–12 series, the state has experienced a decline in its Finance Commission devolutions, as its fiscal capacity appears to be stronger under the new methodology. The continued reliance on GSDP for resource allocation needs to be re-assessed, and GST data instead could be used as a more appropriate measure of fiscal capacity. The state also enjoys the status of a top destination for migration, which raises the question about whether current intergovernmental fiscal transfers adequately account for such demographic shifts. Karnataka's claim of receiving only 0.17 for every rupee that it contributes to the Union's divisible pool emphasizes the perceived imbalance in revenue sharing.

Apropos fiscal health, Karnataka's tax to GSDP ratio declined to 6.2 percent in FY2023 from 7.42 percent in FY2017. The debt-to-GDP ratio, though rising post-COVID to around 23.9 percent, has been relatively moderate and had remained under 20 percent in the pre-pandemic period. The opportunity costs

of the state's "five guarantees" welfare programs need to be examined in detail, though broadly one can conclude that while some schemes like free bus travel for women can enhance equity and productivity, others like provision of free electricity are fiscally and environmentally regressive.

The state is characterized by several institutional and governance strengths. These include the early adoption of a medium-term fiscal framework in 2002, factor market reforms, land reforms implemented through the 'Bhoomi' project, and pioneering implementation of the Panchayati Raj system with digital tools like 'Panchamitra'. The role of the state's responsive bureaucracy also needs to be appreciated for ushering in innovations like rural public libraries. Simultaneously, the functioning of the Karnataka Administrative Reforms Commission needs to be commended for submitting multiple actionable reports.

Overall, thus, Karnataka has emerged as a state with both structural challenges and significant institutional capabilities, underlining the importance of targeted fiscal and governance reforms to address its regional disparities and sustain inclusive growth. The state has also been a national leader in improving the ease of doing business and has consistently ranked among the top recipients of Foreign Direct Investment (FDI).

The state's data readiness, manifested in the availability of household-level data through platforms like the Kutumba App and the AIDIS survey, too needs to be acclaimed. The state government is also making efforts to address regional disparities through its Beyond Bangalore program, aimed at promoting economic development in areas outside the capital. In addition, the state has recorded strong performance on the achievement of Sustainable Development Goals (SDGs), being placed in the "frontrunner" category and ranking eighth nationally.

Another notable accomplishment of Karnataka has been its public expenditure efficiency, outlined by the fact that the state has been able to achieve its current level of public service outputs with 29 percent less input—indicating significant potential for resource optimization. This analysis was shared with the 15th Finance Commission and detailed sectoral work has been published in the *Handbook of Public Sector Efficiency*. However, the state's unusually high number of public schemes—over 1,830—with more than half of them receiving under ₹10 crore annually, points to the considerable scope for rationalizing expenditures, particularly in the light of fiscal pressures arising from new welfare commitments such as the "five guarantees". Lastly, on the broader debate on cash versus in-kind transfers, cash transfers could prove to be more cost-effective and better aligned with household needs, a conclusion supported by my team's prior work influencing policy in other states.

General Discussion

Martin Wolf expressed his keen interest in the discussion, noting that it had revealed an unexpected parallel between Karnataka and the United Kingdom (UK), particularly in terms of population size. He observed that both regions feature pronounced regional disparities. In the UK, for example, London is its wealthiest region—with a GDP per capita approximately 70 percent higher than the national average. This has made the UK home to the largest regional inequalities in Europe. The productivity advantage of London has remained persistent, with it being the only region significantly above the national average in that regard.

Drawing from this experience, he raised a broader policy question: in the UK, there has been an intense debate about the country's excessive political centralization, which has led to concentration of power and fiscal authority in London and weakened the autonomy of local and city governments. These subnational governments, despite governing millions of residents, have limited freedom over resources and decision-making. He suggested that a similar pattern might exist in India, where state governments such as Karnataka's could be exhibiting comparable centralizing tendencies. He queried whether Karnataka faced a parallel challenge of over-centralization, and whether this had implications for inter-district disparities and governance outcomes, emphasizing that, if such centralization were indeed a critical issue, reforming the internal governance structure of states like Karnataka could be one of the most important policy priorities.

Suman Bery lauded the IPF for its decision to focus on state-level issues. He also highlighted the NITI Aayog–NCAER partnership, which supports a state-level data portal. He reflected on the issue raised earlier by Martin Wolf regarding decentralization and institutions, querying whether State Finance Commissions (SFCs), which are ostensibly analogous in function to the Union Finance Commission, are currently active institutions in India. He sought clarification on whether they existed in every state and what role they played, or could potentially play, in developing appropriate metrics for resource distribution.

Given that a task force had been constituted led by the author, M. Govinda Rao, to examine regional imbalances within Karnataka, he questioned whether a revitalized SFC mechanism could assist in that effort. While critiques of the Union Finance Commission's formula, particularly the 'distance' criterion, are common, the focus should also be on how states distribute resources internally. He acknowledged that even the Union Finance Commission earmarked some resources for local governments. Hence, it needs to be seen if the revival of SFCs is an institutional reform worth pursuing.

He raised a conceptual issue stemming from Karthik Muralidharan's discussion on the trade-off between equity and efficiency in public spending. He referred to the earlier tradition of conducting rigorous social cost-benefit analysis in public investment decisions—a practice that has somewhat diminished over time, especially as institutions like the World Bank have moved toward participatory approaches in development. He then posed the following question: Should state-level Expenditure Finance Committees (or Commissions) be mandated to adopt more rigorous analytical tools in a manner similar to how NITI Aayog supports analytical approaches at the Union level? Drawing on insights from the World Development Report (WDR) and long-standing academic skepticism—such as Paul Krugman's doubts about place-based policies—he asked whether such skepticism is still valid. Specifically, how effectively do India's initiatives like the Aspirational Districts Programme (ADP) or Aspirational Blocks Programme (ABP) align with the poverty trap literature and is there a case for shifting the focus entirely toward people-based, rather than place-based, strategies?

Franziska Ohnsorge raised two key questions during the discussion. Her first question revisited the issue of regional inequality. Referring to the initial maps in the paper that displayed income disparities within Karnataka, she asked whether it would be possible to quantitatively compare Karnataka's regional income disparities with those observed in the UK. Specifically, she sought to understand whether Karnataka's internal disparities were, in fact, comparable to the UK's well-documented regional inequalities.

Her second question pertained to the trade-off between people-based and place-based policies. She asked why people from the under-performing or laggard areas were not moving to more prosperous regions within the state, especially since the state has also consistently witnessed in-migration from other states. It would be worthwhile to explore what constraints or barriers are preventing intra-state migration, particularly from the poorer to richer districts.

Karthik Muralidharan emphasized the inherent trade-off between revenue autonomy and central funding conditionalities. He explained that when governments raise their own revenues, they exercise greater control over spending. However, dependence on external funds such as from Central Governments typically comes with constraints, a dynamic common across many governance systems. He contrasted the decentralized, bottom-up federalism of the U.S., which tolerates spatial inequality for local autonomy, with India's centralized, top-down federal structure, where power is not explicitly devolved and largely remains with the higher level of government. This constitutional design, he argued, embeds a strong centralizing tendency in India. Using the example of Centrally Sponsored Schemes (CSS), he noted that while these programs aim to improve human development in lagging regions, they have gradually evolved into rigid frameworks due to concerns over inefficient spending,

thereby limiting state-level autonomy. He suggested the implementation of a more balanced model—granting states flexibility within broad sectoral goals, such as education, without micromanaging inputs like staffing. This would help maintain outcome-focused governance while respecting state autonomy.

Acknowledging Suman Bery's fundamental question regarding place-based policies and institutional roles, he noted that the Aspirational Districts Programme (ADP) has largely adopted the right approach by focusing on human development, specifically governance, education, and nutrition rather than trying to establish industrial clusters in geographically lagging regions. Addressing the broader question of evidence-backed place-based policies, he pointed to the decision of establishing universities in underserved areas as a rare intervention that benefits both 'places' and 'people'. Such investments help build local ecosystems while also equipping individuals with portable human capital. Special Economic Zones (SEZs) could serve as regulatory sandboxes if designed correctly. The key is to target the lagging regions with minimal industrial and political inertia, while allowing experimentation with labor and regulatory reforms.

Responding to the comments, M. Govinda Rao emphasized the complexity of governance and public finance in Karnataka, shaped significantly by regional, social, and political dynamics. Expenditure decisions often reflect the influence of dominant regional communities—namely, the Vokkaligas in the south and Lingayats in the north—leading to pressure from legislators for uneven fund allocations. On urbanization, he reiterated that urban centers are engines of growth and require improved infrastructure and service delivery. Simply classifying areas based on population thresholds does not capture the full governance needs of emerging urban regions. Regarding fiscal populism and freebies, he acknowledged that political compulsions often drive such policies, even when the leadership is aware of their inefficiencies. While redistribution remains a legitimate function of government, it is important to concurrently evaluate opportunity costs.

He noted that direct cash transfers are preferable over commodity subsidies, and that programs like provision of free electricity or transport distort market signals. The core fiscal challenge is to balance redistribution with investments in human development and physical infrastructure. On education, he criticized the over-reliance on under-qualified and temporary 'guest teachers' in Karnataka, especially in backward regions like Kalaburagi and Bidar, where private sector institutions have historically remained underdeveloped due to lack of political support. Such systemic neglect has led to persistently poor education outcomes, reflected in consistently poor matriculation results. While voucher-based models could work in regions with robust private infrastructure (such as Udupi or Bengaluru), state investment in public education is indispensable in the underdeveloped areas. He also highlighted the limitations of Karnataka's

SFC, which, unlike the Union Finance Commission, lacks statutory guidelines on qualifications or professional criteria, leading to politically influenced appointments and tokenistic resource allocations.

He highlighted how the district planning process often bypasses the Commission, further undermining its role in reducing inter-district disparities. Concerning the GDP series used for fiscal allocations, methodological inconsistencies, such as the use of income-originating rather than income-accruing metrics, have complicated tax capacity and productivity assessments. GDP-based formulas may not adequately capture the states' true fiscal needs, especially when much of their revenue derives from consumption taxes. As regards direct comparisons between Karnataka and the UK, even the poorest regions in the UK enjoy significantly higher living standards than backward districts in Karnataka. He concluded by reiterating the urgency of institutional reform and renewed commitment to public service delivery in Karnataka.

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