

11.1 Introduction

Services sector has been the dominant of the three broad sectors in the state's economy accounting for 68-70 per cent of the total Gross Value Added in the recent three year period of 2017-18 to 2019-20. The share of services sector in the overall state economy was greater than the pattern at the national level during this period. The state has been contributing an increasing share of national output- both in terms of the overall GVA and also GVA of the services sector. For the purpose of discussion in this chapter, we include construction in the services sector¹. Among the different sub-sectors of the economy, the state is well-known for its world class IT services industry, besides being a hub for a variety of scientific Research and Development services. Accelerated development of infrastructure over the years such as transportation has also laid the foundations for rapid expansion of services related to this sector in the state in the coming years. The state has also seen steady development of education and health services over the years helping the creation of much needed improvement of human capital both in the state and also in the country as a whole. Building human capital, skilled labour force and infrastructure are the key steps on which the future expansion of the economy would be realised.

Economies around the world suffered setback to progress during the last two years, 2020-21 and 2021-22, as the Covid pandemic inflicted multiple waves of infections through different geographies in the advanced and developing countries. India experienced a decline of 7.4 per cent in GDP measured in constant prices in 2020-21 and estimated to register an increase of 9.2 per cent in 2021-22. Even with this increase, GDP in 2021-22 is expected to increase only marginally by 1 per cent over 2019-20, reflecting the significant impact of the multiple shocks of the pandemic in the last two years. The services sector played a remarkable role through these difficult years, as it provided the life line for the economy and also the social services including health services. The transportation, communication, public administration, health and education services kept the economy and society functioning. The advances in the ICT sector and its wide spread application provided a channel of interactions where physical interactions could not be done.

Several sub-sectors of the services sector were adversely affected during the Covid pandemic. In 2020-21, services GVA at the national level, declined by 8.4 per cent over the previous year and as per the first Advance Estimates of the Ministry of Statistics and Programme Implementation rose by 8.5 per cent in 2021-22. The GVA of services in 2021-22 are projected to remain below their level in 2019-20. While there are still no official estimates of GVA for 2021-22 for Karnataka, the decline of 3.4 per cent in 2020-21 is expected to be made up in the current year.

While all precautions are essential to control the pandemic, given its leading role in the economy, sustained momentum of services is critical to regaining the momentum of economic growth in the state both in the short and the longer term.

¹ Data on GVA available from National Accounts Statistics is grouped into three broad groups (i) Agriculture and allied Activities (ii) manufacturing, mining & Quarrying and Electricity, Gas and Water supply (hence forth Industry) and (iii) Services and construction (henceforth Services).

11.2: Service Sector Contribution to GDP: disaggregated view

11.2.1 Shares of sub-sectors

A distinguishing feature of Karnataka economy from the overall national perspective is not only the predominance of its services sector in terms of output but also the significant position of the computer related services. In 2019-20, the computer related services accounted for the largest- about 22 per cent- share of the state's GVA, compared 5 per cent in the national GVA. Trends in the composition of the state and national economy during the last decade 2011-12 to 2019-20 are presented in **Table 11.1** and a longer term perspective on the emerging composition of the national and the state economy is brought out in the shares of the various sectors in the **Annexure Table A11.1**.

Table 11.1: Percentage Share of Sub-sectors in Total Gross Value Added (2011-12 prices)

Sector	All India				Karnataka			
	2011-12	2017-18	2018-19	2019-20	2011-12	2017-18	2018-19	2019-20
Agriculture and Allied Activities	18.53	15.29	14.81	14.83	13.68	10.07	9.12	9.72
Industry	22.91	23.36	23.16	21.79	20.37	21.14	20.76	19.43
Services	58.56	61.35	62.04	63.38	65.95	68.79	70.12	70.85
Construction	9.59	8.01	8.05	7.80	9.11	6.44	6.40	6.35
Transport (also includes air transport)	4.92	4.89	4.86	4.82	4.54	4.82	4.81	4.79
Air Transport	0.05	0.07	0.07	0.07	0.07	0.20	0.15	0.15
Storage	0.06	0.11	0.11	0.11	0.05	0.03	0.03	0.03
Communication	1.55	1.65	1.55	1.65	1.47	1.31	1.34	1.33
Trade, Hotels and Restaurants	10.90	13.03	13.39	13.77	10.95	10.72	11.01	11.17
Financial Services	5.92	6.06	5.99	5.99	5.21	5.62	5.57	5.76
Real estate, Ownership of Dwellings and Business services (includes computer related services)	12.96	15.03	15.35	15.99	26.02	31.45	31.95	31.91
Computer related services	2.95	4.76	5.02	5.35	15.26	21.35	21.74	21.88
Public Administration	6.06	5.62	5.67	5.83	2.70	2.32	2.60	2.74
Other services	6.60	6.95	7.08	7.42	5.90	6.08	6.39	6.78
TOTAL GSDP	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

Within services, Trade, Hotels and Restaurants and Business Services, account for the large two subsectors after the Computer related services (Table 11.1). The trade sub-sector reflects both the specialisation of production activities in the economy requiring trade and the increasing urbanisation which also enhances opportunities for trade. Even in the rural areas, all the consumption requirements are largely met through the market. The business services reflect the growing need for professional services to facilitate production and commerce. But in both the cases, their share in the overall economy is similar for the state and national levels. The sub-sectors of hotels and restaurants besides transport, are also crucial inputs to tourism, which has experienced growing domestic and international demand, generating employment in the state economy.

The share of 'other services', which includes the social sector services such as education and health, and personal services, accounted for 6.8 per cent of the overall GVA in the state in 2019-20 compared to 7.4 per cent in the national GVA. In both the cases, the shares show rising trend over the years. Construction has seen a declining share in GVA at the state and national levels over time.

11.2.2 Contribution of Karnataka's Services Sector to the National Economy

Karnataka contributed about 7.5 per cent of the national GVA during the three years from 2017-18 to 2019-20. The state's share of services to the national level services GVA was about 8.5 per cent in the same period, highlighting the faster pace of overall economic growth in the state and also faster pace of services growth in the state. While the share of the state in industry and services has grown between 2011-12 and 2019-20, its share in agriculture has been held stable. The details of sectoral level share of the Karnataka in the national economy are presented in **Table 11.2**.

Table 11.2: Karnataka's Service Sector Contribution to All India Gross Value added (2011-12 prices)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Agriculture and Allied Activities	5.03	4.70	4.78	4.99	4.47	4.32	4.94	4.64	5.00
Industry	6.05	6.04	6.16	5.81	6.25	7.04	6.79	6.76	6.81
Services	7.67	7.80	8.11	8.05	8.25	8.40	8.41	8.52	8.53
Construction	6.47	6.12	6.72	6.47	6.41	6.09	6.03	6.00	6.21
Transport (including air transport)	6.30	6.39	6.35	6.65	7.32	7.44	7.39	7.45	7.59
Air Transport	8.51	15.33	10.80	16.16	26.15	23.64	21.17	15.21	16.54
Storage	5.41	5.11	5.75	5.69	5.07	5.09	2.41	2.37	2.42
Communication	6.46	6.40	6.42	6.35	6.48	6.26	5.98	6.53	6.15
Trade, Hotels and Restaurants	6.84	6.56	6.86	6.66	6.13	6.16	6.17	6.20	6.19
Banking and Insurance	6.00	5.98	6.02	6.34	6.75	6.92	6.96	7.02	7.34

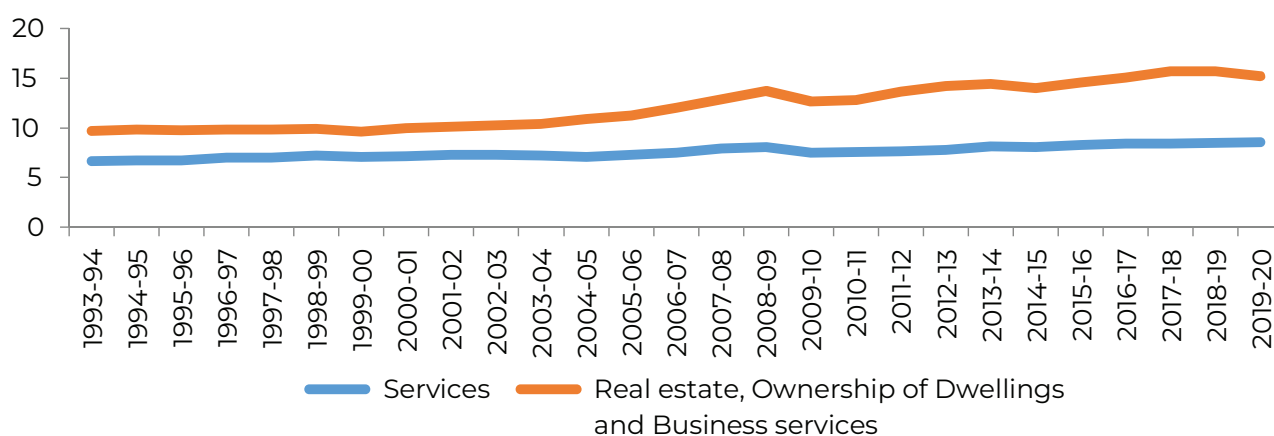
Table 11.2: Karnataka's Service Sector Contribution to All India Gross Value added (2011-12 prices)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Real estate, Ownership of Dwellings and Business services (including Computer related services)	13.67	14.24	14.40	14.02	14.56	15.07	15.70	15.70	15.23
Computer related services	35.18	36.44	36.33	34.17	33.11	33.45	33.69	32.67	31.24
Public Administration	3.03	3.32	3.52	3.47	3.45	3.24	3.09	3.46	3.58
Other services	6.09	6.24	6.32	6.29	6.26	6.38	6.57	6.81	6.97
TOTAL GVA	6.81	6.85	7.08	7.04	7.20	7.46	7.50	7.54	7.63

Source: Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

The distinctive difference in the composition of output between national and Karnataka economy is illustrated by the share of Karnataka's Real Estate, Ownership of Dwellings and Business Services (of which Computer and Computer Related Services are a part) in the national economy shown in **Figure 11.1**.

Figure 11.1: Karnataka's Contribution in Total GVA (%): Shares in GVA in 2011-12 prices



Source: Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

The share of Karnataka in the All India GVA in the sub-sector Real Estate, Ownership of Dwellings and Business Services has always remained well above its share in the total GVA of the country. In the period from 2011-12 to 2019-20, the state's share in Computer and Computer Related Services has remained above 30 per cent but it is declining as these services have been expanding in other states also. A second distinctive feature of

the trends in the state's share of national economy is in the air transport sub-sector, in which the state has now a share of 16.5 per cent compared to 8.5 per cent in 2011-12.

The composition of services output point to the diverse set of factors influencing the course of the economy, affecting both the supply and demand conditions. A remarkable feature of the pattern is the steady rise of the services over time relative to agriculture and allied sector. The shares essentially reflect the relative growth rates of the sub-sectors.

11.2.3 Growth in Service Sector

We consider the growth performance of the services in the state both in the context of the national and state economies and also from the perspective three different time horizons, the immediate (the recent three years, medium-term of the last decade and then a longer time horizon.

In the short-term of the recent three years, the overall economic growth has weakened, particularly as the Covid Pandemic hit the economies in 2020-21. However, the growth deceleration was seen in 2019-20 as well, particularly in Industry (**Table 11.3**). In 2019-20, construction, and Trade, Hotels, Restaurants, Transport, Storage, Communications and Services Related to Broadcasting registered significant slowdown in growth both in the state and at the national levels. In 2020-21, except for agriculture, the other two broad sectors- industry and services- experienced negative annual growth rates. Even the presence of strong Computer and Computer Related Services was not able to push the growth rate of broader sector Finance, Real Estate, Ownership of Dwellings and Business Services, of which it is a component, to a positive territory. 2020-21 and 2021-22 will remain unusual years for the economy, although they do point to several lessons for the longer term strategies.

Table 11.3: Growth in Value Added (2011-12 prices): % Year on Year

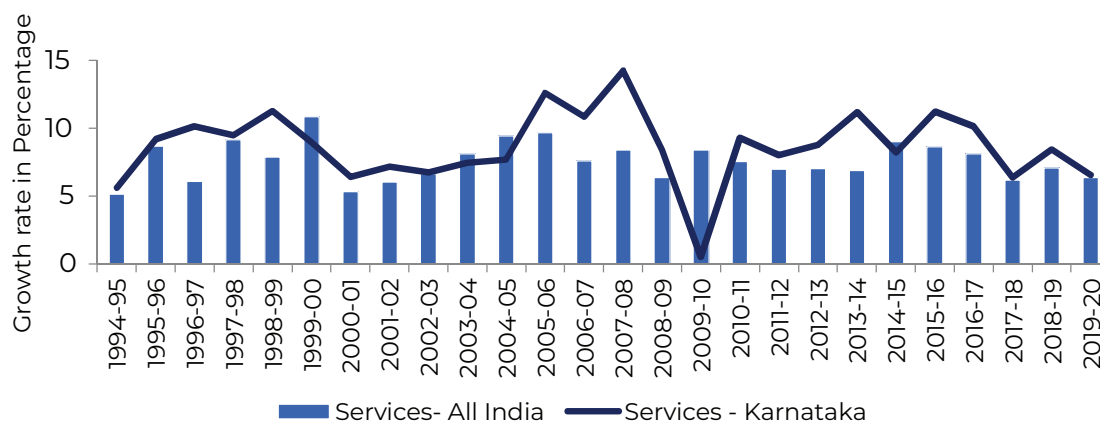
Sectors	All India			Karnataka		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
Agriculture & allied Activities	2.56	4.31	3.63	-3.62	12.30	6.40
Industry	4.96	-2.00	-6.37	4.46	-1.32	-4.71
Services	7.09	6.39	-8.39	8.45	6.54	-3.36
Construction	6.34	0.98	-8.61	5.85	4.61	-6.44
Trade, hotels, transport, communication and services related to broadcasting	7.14	6.40	-18.20	8.33	6.24	-4.25
Financial , real estate & professional services	7.16	7.27	-1.50	7.71	5.82	-4.27
Public Administration, defence and other services	7.39	8.29	-4.62	13.94	11.50	3.94
Total	5.90	4.14	-6.16	6.39	5.43	-2.67

Source: Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

From a medium and longer term perspective, Karnataka economy as a whole has grown at a higher rate compared to the national economy over the period of 25 years i.e., spanning from 1993-94 to 2019-20. The annual average growth rate of GVA in constant prices for All India is 6.30 per cent and that of Karnataka is 7.15 per cent (**Figure 11.2**. Details also in **Appendix Table A11.2**). The services growth in the state has generally remained well above the growth of the sector in the country as a whole. However, it should be noted that the services growth rate has decelerated at the national level as well as in the state since its last peak in 2015-16.

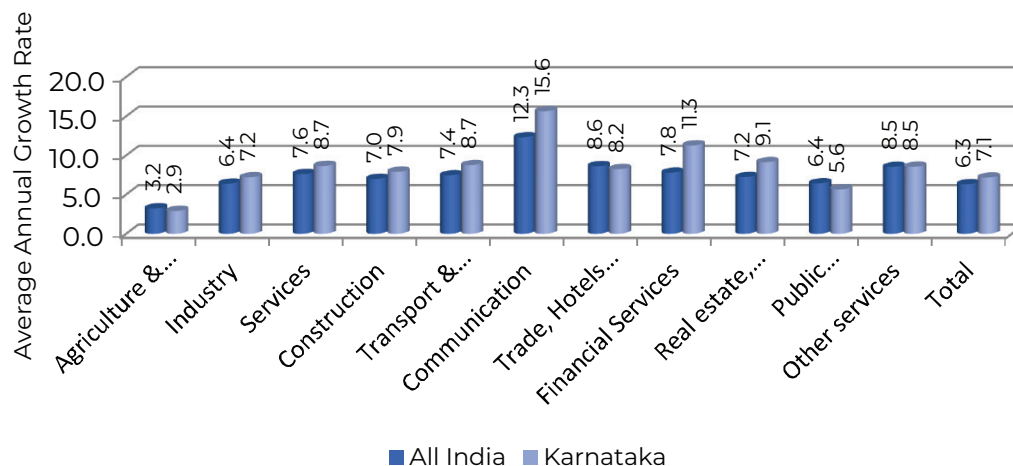
Over a longer period of 1993-94 to 2019-20, barring the cases of Agriculture and Allied Sectors; Trade, Hotels and Restaurants; Public administration; and 'Other Services' comprising of social sector services such as education and health and personal services, the average rate of increase of all other sectors (Industry and Services as a whole) and sub-sectors of services, Karnataka has experienced higher growth rates of income generation or Value Added (**Figure 11.3**). The marginally positive growth rate of services in Karnataka in 2009-10 appears to be an aberration. Public administration and the sub-sector of Real Estate, Ownership of Dwellings, Professional and Business Services registered negative growth and other sectors also experienced low growth in that year.

Figure 11.2: Growth in Service sector (2011-12 prices): % Year-on-Year



Source: Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

Figure 11.3: Sectoral Annual Average Growth Rates of GVA (in 2011-12 prices) in Karnataka and All India: % Year on Year during 1993-94 to 2019-20



Source: Source: Based on data available from Ministry of Statistics and Programme Implementation for All India data and Department of Economics and Statistics, Government of Karnataka for data on Karnataka.

We provide a review of the employment growth in the services and services growth across districts of Karnataka in the two subsequent sections.

11.3: Employment Structure and Growth in Overall Economy and Service Sector

Economic growth has to be translated into employment growth to achieve the broader goals of policy. Employment will also be considered in terms of both number employed and quality of employment reflected in the wage payments. Given the large size of the services sector in the economy, it is expected that it would also create a large demand for employment. There have been a number of studies that have explored the pattern of employment in the period of India's economic growth led by services. In this section we provide a broad review of the pattern of employment that has been experienced in Karnataka.

Data on the employment from National Sample Survey(NSS) 68th Employment Unemployment round, corresponding to the year 2011-12 and three rounds of Periodic Labour Force Survey (PLFS) viz., PLFS-I(2017-18), PLFS-II(2018-19) and PLFS-III (2019-20) are used for an assessment of the employment pattern².

The data point to the fact that the major share of working population is still engaged in agriculture and allied activities although there is a relatively small decline in this share both in the state and at the national level over time and increase in the share of services. There are also fluctuations in the structure of employment even during the three recent years of 2017-18 to 2019-20. There was a sharp increase in the share of services in employment in Karnataka in 2018-19 from the previous year. But in the subsequent year, the services share dropped sharply, with offsetting employment changes in the agriculture sector. Two major sub-sectors of services which saw significant decline in

² Employment here refers to total employed as all those persons who are counted as workers using either the Principal status (PS) or Subsidiary Status (SS).

employment share in 2019-20 are construction and Real estate, Ownership of Dwellings and Professional/ Business services.

Table 11.4 presents the employment structure across different sectors from 2011-12 to 2019-20. The following disaggregation of the subsectors is based on the concordance of income category (reflecting the sector from which workers obtain their income) with NIC 2008 classification.

Table 11.4: Share of Employment in Different Sectors: %								
Sectors	All India				Karnataka			
	2011-12	2017-18	2018-19	2019-20	2011-12	2017-18	2018-19	2019-20
Agriculture & Allied Activities	49.1	44.6	42.9	45.9	49.8	46.0	41.5	46.6
Industry	12.9	12.0	11.7	10.9	12.6	12.1	11.5	12.0
Services	38.0	43.5	45.5	43.3	37.6	41.9	47.0	41.4
Construction	10.5	11.7	12.1	11.6	6.0	7.9	8.7	6.8
Trade	9.1	9.8	10.5	11.3	9.1	8.5	10.1	10.5
Hotels & Restaurants	1.6	1.9	1.9	1.7	2.9	2.9	2.8	2.6
Communication	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.2
Financial Services	0.9	1.1	1.2	1.1	1.0	1.2	1.7	1.3
Public Administration	1.7	1.6	1.7	1.5	1.6	1.8	1.6	1.3
Transport & Storage	4.0	4.8	4.8	4.6	4.3	6.0	7.1	5.9
Real Estate, Ownership of dwelling, Professional and Other Service	9.8	12.3	13.0	11.2	12.4	13.1	14.7	12.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated based on NSS 68th round for 2011-12 and PLFS I, II and III rounds for the subsequent years.

While there are some important changes in the structure of employment, with the services sector increasing its share over time, how has the employment fared? Between 2011-12 and 2019-20, the estimates point to an increase in the employment of 44 million as employment increased from 469 million in 2011-12 to 513 million in 2019-20, or 5.5 million per year for the country as a whole. Employment in services sector at All India level show an increase of 49 million over the period of 8 years, suggesting a decline in the other sectors.

In Karnataka the employment in service sector went up from 9.5 million to 11.4 million i.e. an increase of 1.9 million during 2011-12 to 2019-20.

The changes in the shares of sectors discussed above are also reflected in the growth rates of employment summarised in **Table 11.5**. Among the services, only trade, hotels

and restaurants segments have registered positive growth of employment in 2019-20. At the national level, there was positive growth in employment in all the three main sectors: agriculture and allied, industry and services.

The large fluctuations in the annual growth rates of employment at the sub-sector level are a concern in terms of the implications to the workers. While there is more stability at the aggregate level indicating flexibility in the labour market to absorb the shocks, there is a need to be watchful of these patterns.

Table 11.5: Growth in Employment: Year on Year growth rate in %

Sectors	All India			Karnataka		
	2011-12 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20	2011-12 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
Agriculture & Allied Activities	-1.97	-1.10	16.97	-1.93	-8.31	22.70
Industry	-1.67	0.36	1.53	-1.41	-2.73	13.69
Services	1.35	7.50	4.13	0.72	13.99	-3.77
Construction	0.88	6.80	4.90	3.18	11.54	-14.87
Trade	0.46	10.13	17.65	-1.85	20.77	13.76
Hotels & Restaurants	1.41	2.20	0.47	-0.98	-1.66	1.90
Communication	-0.15	-0.25	-12.98	4.95	-16.30	-37.90
Financial Services	1.67	14.67	-0.29	2.51	37.10	-15.15
Public Administration	-0.98	5.74	1.80	0.50	-8.12	-8.98
Transport & Storage	2.18	2.56	3.97	4.01	20.58	-9.34
Real Estate, Ownership of dwelling, Prof and Other Services	2.61	8.68	-5.78	0.05	13.37	-4.90
Total	-0.59	2.82	9.33	-0.82	1.71	9.23

Source: Calculated based on NSS 68th round and PLFS I, II and III rounds

11.4: Labour Productivity

Bringing together the dimensions of output and employment is the concept of labour productivity. Despite the relatively lower productivity in the sector as a whole, some of the subsectors within the service sector are showing very high productivity- 3-4 times the average for the sector both at the national and state levels. Knowledge intensive and technologically advanced sectors are showing higher productivity. Communication and financial sector both at National and State level indicates productivity growth over the period. For Karnataka Computer services is an important subsector in terms of value addition. Between 2018-19 and 2019-20 both at all India level and Karnataka, productivity growth has been significant for communication, financial and real estate, dwelling and professional services sub sectors.

Table 11.6: Labour Productivity in Rs lakh (2011-12 prices) per year per worker employed

Labour Productivity	All India				Karnataka			
	2011-12	2017-18	2018-19	2019-20	2011-12	2017-18	2018-19	2019-20
Agriculture & Allied activities	0.75	1.07	1.10	0.97	0.61	0.87	0.91	0.83
Industry	2.60	4.54	4.77	4.61	3.26	6.09	6.56	5.69
Services	2.63	3.72	3.70	3.79	3.68	5.97	5.68	6.29
Construction	1.55	1.81	1.80	1.73	3.19	2.96	2.80	3.45
Trade	1.84	3.21	3.18	2.89	2.07	3.95	3.58	3.38
Hotels & Restaurants	1.16	1.54	1.65	1.78	1.40	1.87	2.07	2.09
Transport & Storage	2.12	2.72	2.79	2.77	2.25	2.95	2.60	3.01
Communication	7.52	11.96	11.92	15.17	10.23	10.63	13.78	23.16
Financial Services	11.20	15.13	13.82	14.44	11.10	16.44	12.66	16.25
Public Administration	6.22	9.17	9.26	9.75	3.52	4.78	6.22	7.57
Real Estate, Ownership of Dwellings, Professional Services and Other Services	3.39	4.72	4.70	5.42	5.42	10.38	9.95	11.13
Total	1.70	2.64	2.71	2.59	2.10	3.64	3.80	3.67

Source: Calculated based on value added and employment data from (1) Ministry of Statistics and Programme Implementation (2) DES, Government of Karnataka, and (3) NSSO Employment & Unemployment and PLFS surveys.

The pattern of productivity in the services sector also points to the skewed nature of productivity across sub-sectors. Subsectors with a cumulative employment share of over 62 per cent in 2019-20 have productivity lower than the average for the sector. Implications of the pattern emphasise the urgency of the need for upgrading of skills and education so that sectors with higher productivity can absorb more labour leading to further growth of these sectors.

Growth in the average labour productivity in the recent two years (2018-19 and 2019-20) over the previous year show contrasting pattern between services and the other two broad sectors. While productivity improved in the case of services, it declined for agriculture and industry. As year to year fluctuations in output cause some of these large changes in productivity, the main point emerging from the pattern of productivity changes is also the need to secure stability in output growth and also ability of the labour markets to find alternative employment for those who may lose employment when output shrinks in one of the sectors.

Table 11.7: Growth in Labour productivity: Year on year % change

Growth in Labour Productivity	All India			Karnataka		
	Between 2011-12 to 2017-18	Between 2017-18 to 2018-19	Between 2018-19 to 2019-20	Between 2011-12 to 2017-18	Between 2017-18 to 2018-19	Between 2018-19 to 2019-20
Agriculture & Allied activities	5.08	3.35	-11.70	5.15	5.31	-9.39
Industry	8.31	5.20	-3.41	9.33	7.67	-13.22
Services	4.50	-0.38	2.17	6.60	-4.86	10.71
Construction	2.23	-0.43	-3.73	-1.07	-5.10	22.89
Trade	8.34	-1.20	-9.11	9.71	-9.40	-5.44
Hotels & Restaurants	4.19	6.90	8.02	4.22	10.29	1.31
Transport & Storage	3.61	2.61	-0.71	3.95	-11.94	15.91
Communication	6.86	-0.35	27.33	0.55	29.65	68.08
Financial Services	4.39	-8.67	4.44	5.77	-22.99	28.31
Public Administration	5.71	0.96	5.32	4.47	30.04	21.74
Real Estate, Ownership of Dwellings, Professional Services and Other Services	2.41	-0.57	15.36	7.92	-4.13	11.85
Total	6.21	3.00	-4.75	7.95	4.60	-3.47

Note: Productivity change is annualised under each column.

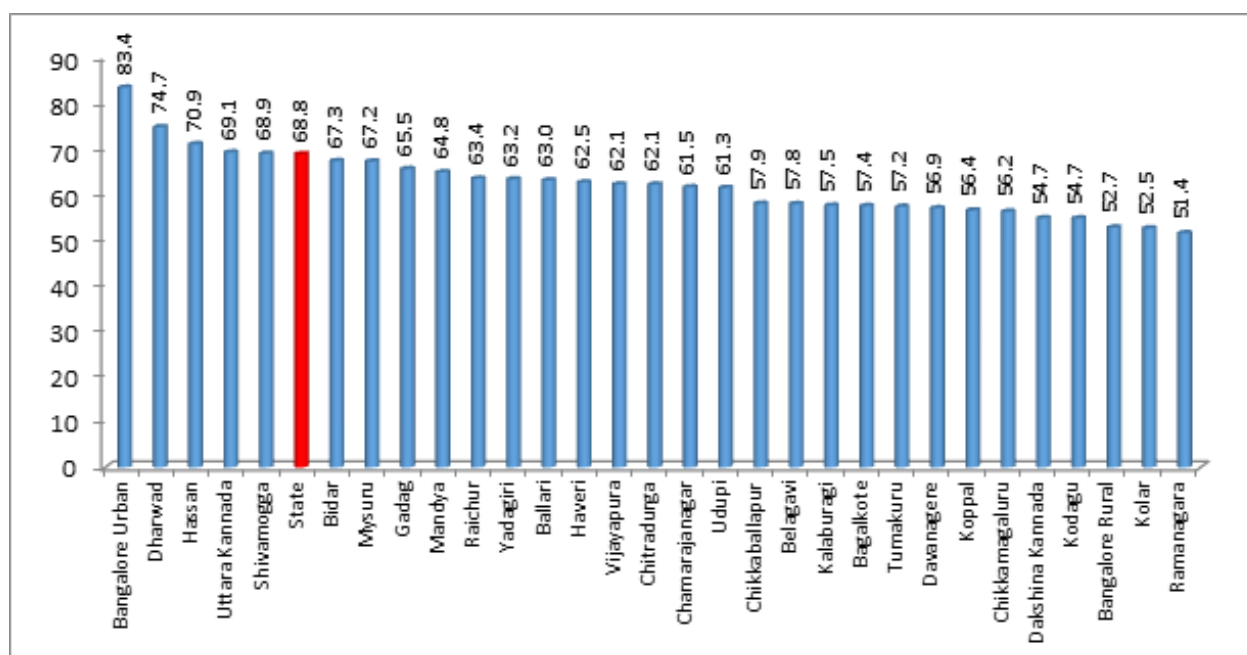
11.5: Regional Disparity in Service Sector

How extensive is the access to the fast growing services sector across districts in the state for businesses and workers? We examine the district-wise data on value added from services in this section to examine this question.

As may be expected, Bengaluru Urban district is most prominent by the presence of services sector. Districts of Bengaluru Urban (83.4%), Dharwad (74.7%), Hassan (70.9%), Uttar Kannada (69.1%) and Shivamogga (68.9%) are the top five districts where major contribution to the district value added comes from service sector.

Dakshina Kannada, Kodagu, Bengaluru Rural, Kolar and Ramanagara districts are in the bottom where service sector contribution is less than 55%.

Figure 11.4: Average Share of Service Sector in Total Value Added across Districts of Karnataka (2011-12 to 2018-19, VA in 2011-12 prices): %



Source: Based on data available from DES, Government of Karnataka

Bengaluru Urban is the major contributor to the State's Service sector value added as well. Bengaluru Urban district alone contributes 42% of the State's service GVA. However, Bengaluru Urban also has the highest share of 15 per cent state's population. In the year 2018-19, 56.9% of the Bengaluru Urban district's value added is from the sector Real estate, Ownership of dwelling and professional services. Bengaluru Urban being the IT hub, it is also the main contributor to the State's value added. Even with respect to the State's total value added across all sectors, Bengaluru Urban contributes 35%. Growth in the service sector is more or less uniform across districts with the highest being 10.6% (Bengaluru Urban) and lowest being 7.6% in Davangere over the period 2011-12 to 2018-19. The pattern suggests that while services remain dominant part of the economy across most districts, growth in services is spurred by the overall momentum of economic growth in the state. The geographic spread of economic activities are strengthened by efficient infrastructure services, supporting movement of people and goods and access to basic inputs such as energy and communications are expected to improve distribution of economic activities across the state.

Table 11.8: Share and Growth rate of Service Sector across Districts in Karnataka: average for the period 2011-12 to 2018-19

Sl. No.	District	Average Growth Rate (of GVA from Services) (%)	Share in the State's Service Sector GVA (%)	Share of Services in District Domestic Product (DDP) (%)
1	Bengaluru Urban	10.6	42.4	83.4
2	Dharwad	8.2	2.7	74.7
3	Hassan	8.3	2.4	70.9

Table 11.8: Share and Growth rate of Service Sector across Districts in Karnataka: average for the period 2011-12 to 2018-19

Sl. No.	District	Average Growth Rate (of GVA from Services) (%)	Share in the State's Service Sector GVA (%)	Share of Services in District Domestic Product (DDP) (%)
4	Uttara Kannada	7.9	1.8	69.1
5	Shivamogga	7.7	2.8	68.9
6	Bidar	8.2	1.4	67.3
7	Mysuru	8.8	3.4	67.2
8	Gadag	8.2	1.1	65.5
9	Mandya	8.3	2.5	64.8
10	Raichur	7.9	1.6	63.4
11	Yadagiri	8.0	0.9	63.2
12	Ballari	7.8	3.1	63.0
13	Haveri	8.1	1.4	62.5
14	Vijayapura	7.7	1.7	62.1
15	Chitradurga	8.1	1.4	62.1
16	Chamarajanagar	8.2	1.1	61.5
17	Udupi	8.8	2.4	61.3
18	Chikkaballapur	8.2	1.2	57.9
19	Belagavi	7.8	3.7	57.8
20	Kalaburagi	8.1	1.8	57.5
21	Bagalkote	8.1	2.1	57.4
22	Tumakuru	8.0	3.2	57.2
23	Davanagere	7.6	1.6	56.9
24	Koppal	7.9	1.0	56.4
25	Chikkamagaluru	8.3	1.9	56.2
26	Dakshina Kannada	8.6	4.8	54.7
27	Kodagu	8.0	0.5	54.7
28	Bengaluru Rural	8.9	1.3	52.7
29	Kolar	8.3	1.4	52.5
30	Ramanagara	8.6	1.2	51.4
	Karnataka	9.2	100.0	68.8

Source: Based on data available from DES, Government of Karnataka

To understand the pattern of growth of services across districts further, we Juxtapose district's per capita income with the share of service sector in **Table 11.9**. The districts in the last row and last column of the table have either low per capita GVA or low levels of services sector share in their economies. In these two categories, except for the two

districts of Bidar and Bagalkot, other districts are either industrially developed or have dominant agricultural sector. In all the districts with high per capita income (value added) but with low share of service sector the industrial sector contributes more than 30 per cent of the GVA. In some of the districts with relatively low per capita income, services account more than 60 per cent of district level value added. But in the districts where agriculture is dominant they have medium or lower per capita income.

Table 11.9 Classification of Districts based on Per capita income (2011-12 prices) and share of services sector: average of 2011-12 to 2018-19

Share of services in the district economy	Per capita income groups		
	High Per capita Income (Rs. 108695 & above)	Medium Per capita Income (Rs. 79101 to Rs. 108694)	Low Per capita Income (Upto Rs. 79100)
High Share of Service sector (63.4% & above)	Bengaluru Urban Shivamogga, Mandya	Gadag, Mysuru Uttara Kannada Hassan, Dharwad	Bidar , Raichur (A)
Medium Share of Service Sector (57.5%-63.3%)	Bellari, Udupi	Chikkaballapura Chamarajanagara	Kalburgi (A) Yadgir (A) Vijayapura (A) Belagavi (A) Chitradurga (A) Haveri (A)
Low Share of Service Sector (upto 57.4%)	Tumakuru (D) Ramanagara (D) Bengaluru Rural (D) Chikkamagaluru (D) Dakshina Kannada (D)	Kolar (A) Kodagu (A) Bagalkot	Koppal (A) Davangere (A)
Source: Based on data available from DES, Government of Karnataka			
Note: 1. Income categories: Low: Upto Rs. 79100; Medium: Rs 79101 to 108694; High: Rs 108695 and above 2. Service sector shares: Low: upto 57.4%; Medium: 57.5 – 63.3% and High: 63.4% and above 3.'A' in parentheses indicates dominant agriculture & allied sector in the district and 'D' indicates the dominance of industry.			

11.6: Service Sector Related Policies

Re-iteration of the spirit of cooperative federalism in government policies at the national and state levels to achieve national development goals has meant alignment of these policies to achieve more robust programs of development and execution. While allocation of sectors or functions to different levels of government would not mean functioning in silos, a conscious cooperation would help achieve maximum benefits of policy initiatives. In the case of several social sectors and the economy, such as health and education services or infrastructure development, state government initiatives are critical for achieving development agenda. However, there are separate policies at both the state

3 This section is based on the material available from the National Aviation Policy (2016) and information available from Karnataka Government.

4 This section is from the Karnataka Tourism Policy 2020-25.

and national levels in these sectors, which affect development of these sectors. In the case of services sector also, sectors such as Railways, national highways or development and regulation of civil aviation, development of major ports, or telecommunication are largely influenced by the policies of the Central government. Even where state government has the leading role, financing of programs may depend on the support the state would get from the Centre. In this section, we will mention the initiatives of the Centre or the State or both for the development of the services sector in the state. We have covered the initiatives in the following four areas: 1. Civil Aviation, 2. Tourism, Information Technology Policy and 4. Bio-Technology Policy.

11.6.1: Civil Aviation³

Civil aviation sector has significant potential to create jobs and business opportunities besides providing faster transportation to meet personal and social needs. The Udan scheme envisaged under the NATIONAL CIVIL AVIATION POLICY 2016 (NCAP 2016) of the Government of India, has focused on achieving greater regional connectivity through developing airports in regional urban centres across the country and bring air transportation facilities closer to regional population centres. In Karnataka, several initiatives have been taken under the scheme. Development of airports at the regional level also brings with it several activities associated with passenger services, cargo movement, and maintenance and repairs services. Jobs will require skill development of the work force leading to benefits to the local economy in the longer term.

NCAP 2016, vision is to create an eco-system to make flying affordable for the masses and to enable 30 crore domestic ticketing by 2022 and 50 crore by 2027, and international ticketing to increase to 20 crore by 2027. Similarly, cargo volumes should increase to 10 million tonnes by 2027. Policy also had an aim to provide safe, secure, affordable and sustainable air travel for passengers and air transportation of cargo with access to various parts of India and the world. One of the main objective of the policy is to enhance regional connectivity through fiscal support and infrastructure development.

In Karnataka, the UDAN scheme has led to development of many airports across the state and bringing air connectivity to the northern part of the state. Bidar, Kalaburgi, Hubballi saw development of airports in their cities. The air connectivity is also expected to increase visitors to the tourist centres in areas near the cities connected with the airports. The regional air connectivity also improves the flows through the major airports located in the larger cities in the state.

11.6.2: Karnataka Tourism⁴

Karnataka with its great Heritage and Cultural Background has vast potential for the sustainable development of tourism industry. State Government has declared Tourism as an industry' since 1988. The Department has brought out series of Tourism Policies with the package of incentives, concessions and subsidies for development of Tourist Infrastructure in the State through the private investment. Tourism has been given priority and it is instrumental for Socio-Economic growth of the State as well as providing lot of employment opportunities for both skilled and unskilled man power. Human Resource Development has also been given importance and initiatives have been taken to impart short term courses in hospitality sector to the younger generation. With the development of Tourism, other related sectors such as, Transport, Hospitality, Horticulture, Handicrafts and other micro enterprises have developed.

The Economic benefits of Tourism are far-reaching. In addition to enhancing revenues within the segment, tourism has the potential to create employment and generate wealth in a sort of “ripple effect” across industries throughout an entire geographical region. By boosting local spending and generating direct job opportunities, tourism provides socio-economic benefits that far outweigh the costs. Rural areas, in particular, stand to gain the most from the improved regional infrastructure and enhanced revenue circulation engendered by tourism-related development projects.

The growth of Tourism is directly proportional to the arrivals of tourists to a particular destination. More number of arrivals will create more economic activities and generate employment and other social facilities.

The impact is measurable at a particular destination comparing with its previous position. Road connectivity, Electrical Connection, Water Supply, Handicrafts and various other related sectors also improve in particular destination. Growth of Community Development in particular area can also be attributed to growth of Tourism.

Tourism Policy-2020-25

Tourism has emerged as one of the largest industries and a key economic driver across the world. The World Travel and Tourism Council (WTTC) in its annual research revealed that in 2018, travel and tourism accounted for 10.4% of the global GDP and 319 million jobs, i.e., 10% of total employment worldwide. A vibrant tourism sector is an important indicator of a healthy economy and it has an important role in achieving the 17 Sustainable Development Goals (SDGs) set by the United Nations. As per WTTC’s Economic Impact 2018 – India report, travel and tourism contributes to 9.2% of India’s total GDP, positioning the country as 3rd among 185 countries in terms of the sector’s overall contribution to the economy.

Tourism value chain provides employment for not only skilled man power but also for unskilled man power. As per estimation, approximately 8 to 11 per cent of the world population gets direct or indirect livelihood through Tourism sector. Tourism attractions, monuments etc fall in the rural area therefore it is a good opportunity for the rural people to get employment. Karnataka is one of the India’s most promising tourism destinations.

Tourism is an important source of foreign exchange. The revenue generated by the Tourism is both by direct and indirect. Tourism and its allied sectors of travel and hospitality have emerged as key drivers of growth among the service sectors of India.

Karnataka has seen immense growth in domestic tourist visits, growing from 36.7 million in 2006 to 215.03 million in 2018. The State attracts nearly 12% of overall domestic tourist visits in India, placing it third among Indian states. Karnataka also saw over 5.4 lakh foreign tourist arrivals in 2018, ranking the State 11th for FTAs in India. In 2019, Karnataka’s tourism sector contributed 14.8% of the State’s GSDP and provided for over 30 lakhs jobs through direct and indirect employment. The State’s tourism destinations encompass a wealth of tourism products across a range of themes including heritage, culture, ecotourism, spiritual, adventure, coastal, wellness, rural, and urban.

Acknowledging the importance of tourism sector, the Government of Karnataka has identified it as a priority sector of the State. The Karnataka Tourism Policy 2020-25 has been formulated building on previous policy. The Policy proposes strategic interventions,

attractive incentives and regulatory reforms to facilitate investment in the tourism sector.

In order to maximize impact, Karnataka Tourism has devised and implemented a comprehensive strategy for the development of tourism in Karnataka. The Department has focused its efforts on four separate areas - policy and implementation, infrastructure development, marketing and preservation and sustenance. Each of these components of the strategy has several programs to improve the performance of the sector.

Karnataka Tourism Vision Group report envisaged that during the 2020-25 policy period Rs 5,000 crore investments will be made which will generate around 10 lakh employment directly or indirectly. More investments are expected from the private sector or under Public-Private-Partnership mechanisms.

Development of the tourism sector requires coordinated efforts of different agencies. Department of Tourism at Bangalore is looking after the administration of Tourism Department along with promotional and developmental activities. It is supported by two other Government undertakings namely, Karnataka State Tourism Development Corporation Ltd (KSTDC) and Jungle Lodges and Resorts Ltd. Every district has a District Tourism Promotional Council headed by the Deputy Commissioners of the concerned districts. This council looks after the tourism activities and also monitor the progress of tourism works.

The KSTDC undertakes commercial activities like operation and maintenance of infrastructure facilities created by the Department and running of hotels, restaurants and organizing package tours in and outside the State. It is also looking after the operation of Golden Chariot (Luxury Tourist Train). Jungle Lodges and Resorts manage the Eco-Tourism units in the State; currently it is managing 18 such Eco-Tourism units & 4 Jungle Camps across the State, which is the best of its kind in the country.

Department of Archaeology, Museums and Heritage was also brought in the ambit of, Department of Tourism to facilitate overall development of Heritage Tourism in the State.

“Responding Today and Preparing for Tomorrow”

During the course of preparation of this Policy, the COVID-19 pandemic rapidly brought the global travel and tourism industry to a virtual standstill. While domestic tourism is expected to recover faster than international tourism, the road to recovery will be long. Karnataka Tourism Policy 2020-25 has taken cognizance of the debilitating impact of the pandemic on the tourism ecosystem of the State and endeavors to create a conducive environment to support the industry for an effective revival and to ensure travelers are safe and can remain confident when visiting Karnataka.

11.6.3: Information Technology Policy⁵

Karnataka's IT (IT, ITES, Innovation and Incentives) policy, introduced in 2014, was instrumental in development of the technology innovation ecosystem in the state. Karnataka was also one of the first state to announce an IT Policy way back in the year 1997, which gave impetus to the growth of the IT industry in the State. Karnataka, particularly Bengaluru, has now emerged as the major IT hub of India and it is the fourth largest technology cluster in the world. The State is also India's largest software exporter and in

2018-19 software and service export has totalled to 77.8 billion USD. In 2019-20, Karnataka contributed 31 per cent of India's GVA from computer and computer related services.

The current 2020-25 IT policy of the state aims to enable the State's IT industry to contribute about 30% of India's goal to become a trillion dollar digital economy and generate about 60 lakh direct and indirect jobs. Further, the policy aims at boosting IT penetration and innovation in the State and to strengthen the innovation ecosystem in areas beyond Bengaluru. The policy also focuses on promoting leadership across key emerging technologies and to make Karnataka a pioneering state through focused interventions such as setting up of various institutional arrangements with the ultimate goal of emerging as a Leading Digital Economy in the country.

11.6.4: Bio-Technology Policy

Karnataka is one of India's largest biotech hubs in the country. The first biotech policy of the state, also popularly known as, Millennium Biotech Policy – I, was initiated in 2001. The second Millennium policy was launched in 2009 followed by the third policy in 2017. These Biotech Policy Frameworks helped the state to become one of the leading Biotech industry destinations in the country.

These Policies have enabled creation of a supportive environment for start-ups, facilitated infrastructure building, and building network platforms for the industry. The policy framework has also helped to enable the industry - academia interactions and develop opportunities for the sector. It has also set up premier research institutes and centers of excellence. The state has several state-of-art incubators. There are nearly 10 incubators that have been supported by the state government to assist the biotech companies take up cutting edge research. Several companies from Karnataka feature in the national list of fame.

Karnataka, through programs like IDEA2POC Grant, Grand Challenges, and Bio Venture Fund, has attracted start-ups. Financial support by the state government has resulted dedicated biotech start-ups in the state. During Covid pandemic the start-ups responded by coming up with various innovations and products.

Karnataka state being a home to many educational institutes like Indian Institute of Science(IISc), National Centre for Biological Sciences (NCBS), Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Rajiv Gandhi University of Health Sciences (RGUHS), University of Agricultural Sciences (UAS), Central Food Technology Research Institute (CFTRI), Defence Food Research Laboratory (DFRL), University of Horticultural Sciences (UHS) and several other private research centers have contributed significantly to the growth of the biotech sector. Karnataka Government has also assisted in building up resources and human capital to provide biotechnology companies a multi-disciplinary pool of talented work force. Karnataka has also launched Biotechnology Finishing School (also revamped and renamed as Biotechnology Skill Enhancement Programme (BiSEP), a first of its kind initiative in collaboration with the Department of Biotechnology (DBT). Under this programme graduates and postgraduates are imparted relevant skills.

⁶ Karnataka Bioeconomy Report 2020 by Association of Biotechnology Led Enterprises, Government of Karnataka.

These initiatives helped the biotech sector to grow rapidly, in both manufacturing and services. Information available for 2014-15 to 2019-20 shows that the sector is growing at 20% in current prices. Nearly 55% of its produce is exported. Exports of the sector are also growing at the rate of 20% per annum.⁶

The latest Biotech Policy 2017-22 sought to continue with the holistic approach that supports the entire range of activities of the sector by supporting both public and private sector investments.

11.7 Conclusions and Way Forward

The state economy has transformed its output structure to reflect much larger share of services compared to agriculture and industry. This transformation reflects the pattern that has emerged at the national level but points to a faster pace of change in Karnataka as compared to the change in the national economy. A notable feature of the service sector in Karnataka is the prominence of computer and computer related sub-sector in its output share. While global demand has been a driving force behind the growth of the sector, expansion of applications of digital technology on the one hand and information processing in all sectors of the domestic economy on the other, are pointers to the potential for further growth of the sector in the future. The future scenarios will require technology enabled operations, be it communications, transportation, finance or manufacturing, to be competitive to meet the consumer needs in the domestic or global markets. The state policies will need to provide the framework for supporting the growth of the sectors to maintain the pace of the economic growth in the state. Besides the growth of output, the share of services in employment is also rising but at a much slower rate than the output. While services enable productivity improvements in the other sectors, improved employment opportunities in the 'modern services' sub-sectors need to be accompanied by productivity improvements in the 'traditional services' as well. Forward looking policy initiatives relating to civil aviation, Tourism, IT and Biotechnology noted in this chapter point to comprehensive approaches to support the growth of the sector. The perspective of growth patterns across regions within the state also requires continued recognition in the policy approaches. The services sector has been affected adversely during the Covid pandemic as both supply side restrictions and weak consumer demand affected output. But services sectors were also important part of the strategies to keep the economy functioning, meet the essential needs including the critical health

Appendix

**Table A11.1: Percentage Share of Sub-Sector in Total GDP/GVA
(1993-94 to 2019-20; in 2011-12 prices)**

	All India				
	1993-94	1999-00	2004-05	2011-12	2019-20
Agriculture & allied Activities	32.24	27.17	22.64	18.53	14.83
Industry	21.60	22.23	22.42	22.91	21.79
Services	46.16	50.61	54.94	58.56	63.38
Construction	6.69	6.71	8.08	9.59	7.80
Transport & Storage	3.74	3.90	4.54	4.98	4.93
Communication	0.42	0.77	1.65	1.55	1.65
Trade, Hotels and Restaurants	7.94	9.38	10.55	10.90	13.77
Financial Services	4.25	5.47	5.48	5.92	5.99
Real estate, Ownership of Dwellings and Business services	12.91	13.24	13.88	12.96	15.99
Public Administration	5.81	6.49	5.80	6.06	5.83
Other services	4.39	4.64	4.95	6.60	7.42
Total	100.00	100.00	100.00	100.00	100.00
	Karnataka				
Agriculture & allied Activities	30.74	25.60	16.61	13.68	9.72
Industry	20.16	19.80	22.93	20.37	19.43
Services	49.10	54.60	60.47	65.95	70.85
Construction	5.64	8.07	7.93	9.11	6.35
Transport & Storage	3.30	3.82	4.27	4.59	4.83
Communication	0.20	0.41	1.01	1.47	1.33
Trade, Hotels and Restaurants	8.77	10.39	11.34	10.95	11.17
Financial Services	2.19	2.87	3.53	5.21	5.76
Real estate, Ownership of Dwellings and Business services	20.05	19.36	23.46	26.02	31.91
Public Administration	4.07	3.81	3.46	2.70	2.74
Other services	4.88	5.88	5.47	5.90	6.78
Total	100.00	100.00	100.00	100.00	100.00

Source: Calculated based on value added and employment data from (1) Ministry of Statistics and Programme Implementation (2) DES, Government of Karnataka.

Table A11.2: Annual average growth rates (%) in Gross Value Added (2011-12 prices): All India and Karnataka

Sector	1993-94 to 1995-96	1996-97 to 2000-01	2001-02 to 2005-06	2006-07 to 2010-11	2011-12 to 2015-16	2016-17 to 2019-20	1993-94 to 2019-20
	All India						
Agriculture & allied Activities	2.01	3.27	2.69	3.22	2.78	5.07	3.23
Industry	11.33	4.85	6.09	8.50	5.75	4.35	6.39
Services	6.92	7.85	7.98	7.66	7.70	6.95	7.60
Construction	5.68	6.63	10.78	8.17	4.81	4.61	6.99
Transport & Storage	8.81	6.37	9.12	8.12	7.21	5.40	7.44
Communication	15.94	19.50	18.46	6.86	11.09	2.20	12.32
Trade, Hotels and Restaurants	12.58	7.19	8.93	7.19	8.63	9.73	8.61
Financial Services	8.08	9.41	8.35	8.31	7.73	4.25	7.78
Real estate, Ownership of Dwellings and Business services	4.64	7.80	6.57	5.45	10.18	7.01	7.21
Public Administration	4.03	8.85	3.54	9.08	3.73	8.20	6.42
Other services	5.02	8.28	7.65	11.55	7.96	8.46	8.50
Total	6.32	5.83	6.23	6.93	6.38	6.06	6.30
Karnataka							
Agriculture & allied Activities	0.91	3.18	0.42	6.41	-2.01	8.45	2.91
Industry	7.54	6.08	8.47	7.79	6.44	6.90	7.18
Services	7.42	9.26	8.33	8.66	9.49	7.87	8.65
Construction	8.39	14.18	7.71	9.18	3.58	3.79	7.89
Transport & Storage	7.63	10.37	8.13	7.54	11.55	6.03	8.74
Communication	20.53	24.65	21.92	14.44	11.32	0.93	15.63
Trade, Hotels and Restaurants	12.53	8.36	9.16	7.68	4.59	10.00	8.23
Financial Services	14.80	10.11	11.39	13.82	12.22	6.48	11.28
Real estate, Ownership of Dwellings and Business services	4.89	8.16	9.20	8.50	12.99	8.22	9.11
Public Administration	4.62	5.44	4.14	4.88	5.55	9.36	5.64
Other services	6.21	10.67	3.82	9.36	8.89	11.41	8.53
Total	5.46	6.93	6.56	8.05	7.32	7.64	7.15

Source: Calculated based on value added and employment data from (1) Ministry of Statistics and Programme Implementation (2) DES, Government of Karnataka.

Table A11.3: District-wise Sectoral share (%) and Average Annual Growth Rates (%): 2011-12 to 2018-19

District	Sectoral share within DVA				Annual Average Growth rates			
	Agriculture	Industry	Services	DVA	Agriculture	Industry	Services	DVA
Bagalkote	17.5	25.1	57.4	100.0	2.5	8.9	8.1	7.1
Bengaluru Urban	0.7	15.9	83.4	100.0	4.5	8.7	10.6	10.2
Bengaluru Rural	11.4	35.9	52.7	100.0	-1.7	8.3	8.9	7.1
Belagavi	21.1	21.1	57.8	100.0	4.9	8.6	7.8	7.0
Ballari	13.1	23.8	63.0	100.0	4.6	8.9	7.8	7.4
Bidar	16.3	16.5	67.3	100.0	2.9	8.3	8.2	6.9
Vijayapura	22.2	15.7	62.1	100.0	5.5	8.6	7.7	7.0
Chamarajanagar	18.2	20.3	61.5	100.0	-0.7	8.8	8.2	6.3
Chikkaballapur	20.2	21.9	57.9	100.0	1.6	8.7	8.2	6.6
Chikkamagaluru	14.4	29.5	56.2	100.0	-1.0	9.2	8.3	6.7
Chitradurga	23.0	14.9	62.1	100.0	6.5	8.7	8.1	7.6
Dakshina Kannada	7.4	37.9	54.7	100.0	7.8	9.2	8.6	8.6
Davanagere	24.1	18.9	56.9	100.0	4.9	8.7	7.6	6.8
Dharwad	8.1	17.2	74.7	100.0	4.4	8.9	8.2	7.6
Gadag	15.3	19.2	65.5	100.0	1.5	9.0	8.2	6.6
Kalaburagi	21.8	20.7	57.5	100.0	12.6	8.7	8.1	8.0
Hassan	16.6	12.5	70.9	100.0	0.5	8.8	8.3	6.7
Haveri	22.8	14.7	62.5	100.0	1.1	9.1	8.1	6.0
Kodagu	30.9	14.4	54.7	100.0	-9.0	9.1	8.0	0.7
Kolar	20.9	26.6	52.5	100.0	-0.1	8.5	8.3	6.5
Koppal	25.5	18.1	56.4	100.0	-0.1	8.0	7.9	5.3
Mandya	16.4	18.8	64.8	100.0	2.1	8.9	8.3	7.1
Mysuru	14.2	18.6	67.2	100.0	5.0	8.7	8.8	7.9
Raichur	21.7	14.9	63.4	100.0	3.8	8.3	7.9	6.9
Ramanagara	14.4	34.1	51.4	100.0	1.6	9.4	8.6	7.6
Shivamogga	15.1	16.0	68.9	100.0	9.4	9.0	7.7	8.1
Tumakuru	13.6	29.1	57.2	100.0	4.3	9.1	8.0	7.6
Udupi	11.4	27.2	61.3	100.0	3.9	9.1	8.8	8.2
Uttara Kannada	15.6	15.3	69.1	100.0	9.4	8.9	7.9	8.2
Yadagiri	21.6	15.2	63.2	100.0	12.6	9.1	8.0	7.9
Karnataka	10.9	20.3	68.8	100.0	2.6	8.8	9.2	8.3

Source: Calculated based on value added and employment data from DES, Government of Karnataka.

