III
INFRASTRUCTURE DEVELOPMENT IN KARNATAKA
CHAPTER -III
INFRASTRUCTURE DEVELOPMENT IN KARNATAKA

3.1 INTRODUCTION

Infrastructure is the foundation for development of any country. Availability of adequate infrastructure facilities is an important precondition for sustainable economic and social development. Recognizing their importance in economic development these services are also reflected to as social overhead capital (Hirschman, 1985).

The word infrastructure is defined in dictionary as “the underlying foundation or basic framework infrastructure can be categorized as “economic infrastructure” and social infrastructure”. The former includes transport and communication, irrigation, energy, banking, and insurance etc, whereas the latter include sectors like health, education, housing, etc. infrastructure encompasses activities that share technical features (such as economics of scale) and economic features (such as spillovers) from users to non-users (WDR.1994).

Regional disparities in economic development can be explained in terms of varying levels of infrastructural services available to people in different regions. Improvement in infrastructural services is essential for enhancing efficacy of the productive process and for raising productivity of any economic entity.

Infrastructure comprising transport communication, education and health is the backbone of India and Karnataka economy. In the present chapter inter-division variations in the development of infrastructure have been examined for the period of 1984-85 to 2004-05 The chapter has been divided into two sections in section 1 regional disparities in development of education and health among the divisions of Karnataka has been examined indicator-wise. In section II an attempt is made to examine the extent of disparities in development of transport and communication among the divisions by applying simple statistical techniques like variations analysis.
3.2 EDUCATION DEVELOPMENT IN KARNATAK

Education is an engine of economic growth and social change. It creates motivation for progress and brings revolutionary ideas necessary for the progress of the country. Father of Economics Adam Smith has stated that education plays an important role among the many factors that contribute for economic development. Marshall regarded education as a national investment and most valuable capital. Halsey observed “Education has become part of economic: foundation of modern society, a major avenue of social mobility, a central agency of social distribution and social policy as urgent and important as poverty, sickness and unemployment”.

History has demonstrated that greater progress has been achieved in those countries, where education is wide spread during 19th century; nothing occupied a more prominent place among the requirements for economic and social changes than public education (Galbraith).

Prof. Amarthy Sen calls “Enhancement of basic human capabilities as Eastern Strategy. Human development, (basic education, healthcare etc..) highly helps economic and industrial expansion and improves the efficiency. According to Todaro education contributes economic growth in the developed and developing countries in the following ways:

i. It helps in creating productive labour force and endowing it with increased knowledge and skills.

ii. It helps in creating a class of educated leaders to fill vacancies left by departing Expatriates.

iii. It helps in providing basic skills and encourages modern attitudes in the diverse segments of the population.

Schultz analyzed the contribution of education to growth in national income in the United States from 1900 to 1956 and come to conclusion that investment
in education contributed 3.5 times more to increase in national income than investment in physical capital. Dension estimated that investment in education contributed 25% of the growth for the real income.

Above analysis indicates that education is the most important drivers of India and Karnataka’s social and economic development. A well-educated workforce is essential for economic growth. It indicates that there is a close relation between economic development and education.

3.2.1 Regional Disparities

There exist considerable disparities in terms of socio-economic development between different regions within the state. The areas added to the state of Mysore in 1956 were at different levels of economic development. The Princely state of Mysore was considered as one of the most progressive and developed province at the time of independence. Modern system of education was established as early as 1833. The first school for girls was started in Bangalore city by the London Mission in 1840, when education of a girl was a rate of occurrence. In Bombay-Karnataka region modern system of education was established as early as 1826, whereas in Hyderabad-Karnataka region, not much progress was made in education till independence. Only 7% of the women in Hyderabad-Karnataka area were literate at the time of 1961 census when female literacy was about 10% in the rest of states. In the area of basic health services, Mysore was the first state in the country to take up vaccination against smallpox in 1806. A Government Hospital was set up in Bangalore in 1846. The first two official family planning clinics in the world were opened by the Government of Mysore in 1930 (Rayappa and Shekar 1998). By contrast, in Hyderabad-Karnataka region, even now many villages lack basic health facilities. In connection the following table reveals demographic futures of Karnataka state as per 2001 census.
<table>
<thead>
<tr>
<th>State /District</th>
<th>Population</th>
<th>Decadal Growth Rate (1991-01)</th>
<th>Sex Ratio</th>
<th>Density</th>
<th>Literacy Rate (7+age)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Males</td>
<td>Females</td>
<td>Total</td>
<td>Males</td>
</tr>
<tr>
<td>India</td>
<td>1,027,015,247</td>
<td>531,277,078</td>
<td>495,738,169</td>
<td>933</td>
<td>324</td>
</tr>
<tr>
<td>Karnataka</td>
<td>52,850,562</td>
<td>26,898,918</td>
<td>25,951,644</td>
<td>17.25</td>
<td>964</td>
</tr>
<tr>
<td>Belgaum</td>
<td>4,214,505</td>
<td>2,150,090</td>
<td>2,064,415</td>
<td>17.40</td>
<td>960</td>
</tr>
<tr>
<td>Bagalkot</td>
<td>1,651,892</td>
<td>834,247</td>
<td>817,645</td>
<td>18.54</td>
<td>980</td>
</tr>
<tr>
<td>Bijapur</td>
<td>1,806,918</td>
<td>926,424</td>
<td>880,494</td>
<td>17.63</td>
<td>950</td>
</tr>
<tr>
<td>Gulbarga</td>
<td>3,130,922</td>
<td>1,592,789</td>
<td>1,538,133</td>
<td>21.02</td>
<td>966</td>
</tr>
<tr>
<td>Bidar</td>
<td>1,502,373</td>
<td>771,022</td>
<td>731,351</td>
<td>19.56</td>
<td>949</td>
</tr>
<tr>
<td>Raichur</td>
<td>1,669,762</td>
<td>841,840</td>
<td>827,922</td>
<td>21.93</td>
<td>983</td>
</tr>
<tr>
<td>Koppal</td>
<td>1,196,089</td>
<td>603,312</td>
<td>592,777</td>
<td>24.57</td>
<td>983</td>
</tr>
<tr>
<td>Gadag</td>
<td>971,835</td>
<td>493,533</td>
<td>478,302</td>
<td>13.14</td>
<td>969</td>
</tr>
<tr>
<td>Dharwad</td>
<td>1,604,253</td>
<td>823,204</td>
<td>781,049</td>
<td>16.65</td>
<td>949</td>
</tr>
<tr>
<td>Uttar Kannada</td>
<td>1,353,644</td>
<td>686,876</td>
<td>666,768</td>
<td>10.90</td>
<td>971</td>
</tr>
<tr>
<td>Haveri</td>
<td>1,439,116</td>
<td>740,469</td>
<td>698,647</td>
<td>13.29</td>
<td>944</td>
</tr>
<tr>
<td>Bellary</td>
<td>2,027,140</td>
<td>1,029,714</td>
<td>997,426</td>
<td>22.30</td>
<td>969</td>
</tr>
<tr>
<td>Chitradurga</td>
<td>1,517,896</td>
<td>776,221</td>
<td>741,675</td>
<td>15.5</td>
<td>955</td>
</tr>
<tr>
<td>Davanagere</td>
<td>1,790,952</td>
<td>917,705</td>
<td>873,247</td>
<td>14.78</td>
<td>952</td>
</tr>
<tr>
<td>Shimoga</td>
<td>1,642,545</td>
<td>830,559</td>
<td>811,986</td>
<td>12.90</td>
<td>978</td>
</tr>
<tr>
<td>Udupi</td>
<td>1,112,243</td>
<td>522,231</td>
<td>590,012</td>
<td>6.88</td>
<td>1130</td>
</tr>
<tr>
<td>Chikmagalur</td>
<td>1,140,905</td>
<td>574,911</td>
<td>565,994</td>
<td>11.98</td>
<td>984</td>
</tr>
<tr>
<td>Tumkur</td>
<td>2,584,711</td>
<td>1,313,801</td>
<td>1,270,910</td>
<td>11.87</td>
<td>967</td>
</tr>
<tr>
<td>Kolar</td>
<td>2,536,069</td>
<td>1,286,193</td>
<td>1,249,876</td>
<td>13.83</td>
<td>972</td>
</tr>
<tr>
<td>Bangalore</td>
<td>6,537,124</td>
<td>3,426,599</td>
<td>3,110,525</td>
<td>34.80</td>
<td>908</td>
</tr>
<tr>
<td>Bangalore Rural</td>
<td>1,881,514</td>
<td>962,183</td>
<td>919,331</td>
<td>12.21</td>
<td>955</td>
</tr>
<tr>
<td>Mandya</td>
<td>1,763,705</td>
<td>888,034</td>
<td>875,671</td>
<td>7.14</td>
<td>986</td>
</tr>
<tr>
<td>Hassan</td>
<td>1,721,669</td>
<td>859,086</td>
<td>862,583</td>
<td>9.66</td>
<td>1004</td>
</tr>
<tr>
<td>Dakshina</td>
<td>1,897,730</td>
<td>938,434</td>
<td>959,296</td>
<td>14.51</td>
<td>1022</td>
</tr>
<tr>
<td>Kannada</td>
<td>548561</td>
<td>274831</td>
<td>273730</td>
<td>11.64</td>
<td>996</td>
</tr>
<tr>
<td>Kodagu</td>
<td>2641027</td>
<td>1344670</td>
<td>1296357</td>
<td>15.04</td>
<td>964</td>
</tr>
<tr>
<td>Chamarajnagara</td>
<td>965462</td>
<td>489940</td>
<td>475522</td>
<td>9.16</td>
<td>971</td>
</tr>
</tbody>
</table>

The above table gives information about demographic future in Karnataka, the total population is 52,850,562 in Karnataka out of male population 26,898,918 and female 25,951,644, and male population is more than female population in Karnataka state. The total literacy rate is 66.60 percent out of them male 76.10 percent and female 56.90 percent, here also male literacy high more than female in Karnataka. The sex ratio indicates that there were 964 females per 1,000 males in the state, compared to 933 for the country as a whole.

3.2.2 Population Growth and Dynamics

The population of Karnataka which stood at 13 million in 1901 increased to 19 million by 1951 and to 45 million by 1991. Thus, the population in the state has increased by three and a half times during the last ninety year period. The population of Karnataka was 52.7 million by 2001 A.D. The sex ratio indicates that there were 964 females per 1,000 males in the state, compared to 933 for the country as a whole. Further, one-fifth of the total population in the state belonged to Scheduled Castes and Tribes category. A detailed discussion on the demographic profile of Karnataka has been presented in this section.

3.2.3 Tends and Levels in Population Growth:

The population growth in the state has not been uniform in the present century, with variations from decade to decade. There was a slight fall in the population during 1911 to 1921 mainly due to famines and epidemic after the First World War (Table-3.2). Historically, the population growth in Karnataka has been close to the national average. However, there was a sharp decline in the growth rate during the last two decades.
### Table 3.2


<table>
<thead>
<tr>
<th>Year</th>
<th>Persons</th>
<th>Population</th>
<th>Decennial Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Karnataka</td>
</tr>
<tr>
<td>1901</td>
<td>13054754</td>
<td>6582195</td>
<td>6472559</td>
</tr>
<tr>
<td>1911</td>
<td>13525251</td>
<td>6827801</td>
<td>6697450</td>
</tr>
<tr>
<td>1921</td>
<td>13377599</td>
<td>6793718</td>
<td>6583881</td>
</tr>
<tr>
<td>1931</td>
<td>14632992</td>
<td>7445458</td>
<td>7187534</td>
</tr>
<tr>
<td>1941</td>
<td>16255638</td>
<td>8294043</td>
<td>7961325</td>
</tr>
<tr>
<td>1951</td>
<td>19401956</td>
<td>9866923</td>
<td>9535033</td>
</tr>
<tr>
<td>1961</td>
<td>23586772</td>
<td>12040923</td>
<td>11545849</td>
</tr>
<tr>
<td>1971</td>
<td>29299014</td>
<td>14971900</td>
<td>14327114</td>
</tr>
<tr>
<td>1981</td>
<td>37045451</td>
<td>18869494</td>
<td>18173957</td>
</tr>
<tr>
<td>1991</td>
<td>44977201</td>
<td>22951917</td>
<td>22025284</td>
</tr>
<tr>
<td>2001</td>
<td>52733958</td>
<td>26856343</td>
<td>25877615</td>
</tr>
</tbody>
</table>

Source: India, Registrar General (1993a, 2001)

### Figure 3.1


Source: Table 3.2
The growth rates vary widely across the districts. It is observed that until 1940, some districts like Kodagu and Chikmagalur experienced decease in their population due to the scourge of malaria. The fastest growing region in the state has been Southern Maidan comprising districts belonging to old Mysore state, followed by Northern Maidan, Coastal and Malnad areas (Table-3.3). But the northern districts (coming under Gulbarga division) experienced higher growth during 1981-91. Good irrigation facilities encouraged large scale migration into Bellary and Raichur districts in the eighties which led to higher growth rate of population in this region. This is evident from the fact that out of the 20 districts in the state, only four districts which belong to Gulbarga division, experienced higher growth rate during the last decade than during the previous decades. Of the remaining districts, except Bangalore (the capital city of Karnataka), all other districts have growth rates close to or less than 2 percent, with Kodagu showing the lowest growth rate (0.5 percent) during the last decade.

Table-3.3

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(3.55)</td>
<td>(-1.10)</td>
<td>(9.01)</td>
<td>(10.57)</td>
<td>(17.85)</td>
<td>(19.72)</td>
<td>(21.92)</td>
<td>(23.73)</td>
<td>(19.16)</td>
<td>(-15.91)</td>
</tr>
<tr>
<td>Coastal and Malnad</td>
<td>-0.51</td>
<td>-1.11</td>
<td>5.71</td>
<td>7.81</td>
<td>17.24</td>
<td>32.67</td>
<td>24.19</td>
<td>24.33</td>
<td>13.13</td>
<td>11.47</td>
</tr>
<tr>
<td>Northern Maidan</td>
<td>3.15</td>
<td>-4.98</td>
<td>9.96</td>
<td>11.05</td>
<td>15.60</td>
<td>19.27</td>
<td>22.53</td>
<td>23.60</td>
<td>23.00</td>
<td>18.76</td>
</tr>
<tr>
<td>All India</td>
<td>5.75</td>
<td>-0.31</td>
<td>11.00</td>
<td>14.22</td>
<td>13.31</td>
<td>21.51</td>
<td>24.80</td>
<td>24.66</td>
<td>23.51</td>
<td>12.34</td>
</tr>
<tr>
<td></td>
<td>(5.60)</td>
<td>(-0.31)</td>
<td>(10.49)</td>
<td>(13.39)</td>
<td>(12.39)</td>
<td>(19.78)</td>
<td>(22.40)</td>
<td>(22.36)</td>
<td>(21.12)</td>
<td>(-20.27)</td>
</tr>
</tbody>
</table>

Source: India, Registrar General (various years)
Note: Figures in the parenthesis are decadal exponential growth rates.
Coastal and Malnad regions consist of six district, namely, Dakshina Kannada, Udupi and Uttara Kannada,(Coastal) and Chikmagalur, Shimoga and Kodagu (Malnad). Southern Maidan includes Bangalore Urban, Bangalore Rural, Chamarajanagara, Chitradurga, Davanagere, Hassan, Mandya, Mysore, Kolar and Tumkur District.

Northern Maidan includes Bagalkot, Belgaum, Bellary, Bidar, Bijapur, Dharwad, Gadag, Gulbarga, Haveri, Koppal and Raichur districts.

3.2.4 Primary Schools

The table–3.4 clearly indicates that there are number of educational institutions which contributed to the field of education by providing professional, technical and basic education. There were about 20,344(38.05 percent) Primary Schools in Bangalore division during the year 2004-05.

Gulbarga division had 8,257 (15.44 per cent) primary Schools where we take backward areas into consideration for the period 2004-05.
### Table -3.4

**Division wise Distribution of Primary Schools**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Primary Schools</th>
<th>Primary Schools Per Lakh Population</th>
<th>Growth Rate of Primary Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum</td>
<td>8285 (21.35)</td>
<td>8478 (21.25)</td>
<td>8756 (21.01)</td>
</tr>
<tr>
<td>Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulbarga</td>
<td>618 (14.48)</td>
<td>5812 (14.57)</td>
<td>6985 (16.76)</td>
</tr>
<tr>
<td>Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangalore</td>
<td>14065 (36.25)</td>
<td>15254 (38.24)</td>
<td>15413 (36.98)</td>
</tr>
<tr>
<td>Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mysore</td>
<td>10834 (27.92)</td>
<td>10350 (25.94)</td>
<td>10530 (25.26)</td>
</tr>
<tr>
<td>Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karnataka</td>
<td>38802 (100.00)</td>
<td>39894 (100.00)</td>
<td>41684 (100.00)</td>
</tr>
<tr>
<td>SD</td>
<td>3605.74</td>
<td>3982.46</td>
<td>3629.06</td>
</tr>
<tr>
<td>MEAN</td>
<td>9700.50</td>
<td>9973.50</td>
<td>10421.00</td>
</tr>
<tr>
<td>CV</td>
<td>37.17</td>
<td>39.93</td>
<td>34.82</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of Primary Schools,
SD: Standard Deviation
CV: Coefficient of Variation
From the above table per lakh population of primary schools by different years is as follows. Bangalore division had highest i.e., 276.01 per lakh population of Primary Schools, 180.52 in Belgaum division, 170.65 in Galburga division per lakh population of primary schools and lowest in 108.95 per lakh population of primary schools were in Mysore division in the year 2004-05.

The growth rate of Primary Schools was highest i.e., 46.97 percent in Gulbarga division and 18.58 percent of Mysore division which had lowest growth rate of Primary Schools in the year 1984-05 in five year’s period. Coefficient variations figures in dictated that inter-division disparities in the primary school has been declined during 1984-85 to 2004-05.

3.2.5 PRIMARY SCHOOL ENROLLMENT

Table –3.5 states that education is considered as a factor that favorably influences adoption of modern technology and commercialization of infrastructure. Distribution of division wise primary schools enrollment is shown in Table-3.5
### Table -3.5

#### Distribution of Division Wise Primary Schools Enrollment

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Primary Schools Enrollment (000)</th>
<th>Growth Rate of Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>1568 (25.60)</td>
<td>1631 (24.11)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>987 (16.11)</td>
<td>1067 (15.77)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>1940 (31.67)</td>
<td>2305 (34.08)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>1630 (26.61)</td>
<td>1761 (26.03)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>6125 (100.00)</td>
<td>6764 (100.00)</td>
</tr>
<tr>
<td>SD</td>
<td>2336.95</td>
<td>2576.80</td>
</tr>
<tr>
<td>MEAN</td>
<td>2670.50</td>
<td>2974.25</td>
</tr>
<tr>
<td>CV</td>
<td>87.51</td>
<td>86.64</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of Primary School Enrollment

SD: Standard Deviation

CV: Coefficient of Variation
The table-3.5 reveals that in the Bangalore Division, in the enrollment year 2000-01 there were highest about 2904 thousands Primary Schools enrolment (34.68 percent), comparing to Gulbarga Division, that it has 1,600 thousands primary schools enrolment (19.11 percent), this is the lowest in the same year.

The above table indicates that 6.32 percent negative growth rate of primary schools enrollment was in Mysore division in the year 1984-05 compared to Gulbarga division which is high i.e., 72.34 percent followed by Belgaum division in 36.54 and 30.36 per cent in Bangalore division growth rate for the period 1984-05. Coefficient variation almost all same during the study period, which is range between 86.64 percent to 89.97 percent which indicate that no change in regional disparities in enrollment in primary school.

### 3.2.6 Division Wise High Schools

The details in the table -3.6 indicate some significant trends about the number of high schools. Division wise there were 9462 high schools in Karnataka in 2004-05. The number of high schools in Gulbarga division was the lowest at 1367 (14.45 percent). Bangalore division had the highest number of high schools i.e., 3591 (37.95 percent) in 2004-05.
### Table 3.6
Division Wise Distribution of High Schools

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of High Schools</th>
<th>High Schools Per Lakh Population</th>
<th>Growth Rate of High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>983 (25.77)</td>
<td>1213 (25.30)</td>
<td>1397 (24.36)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>1284 (33.66)</td>
<td>1708 (35.63)</td>
<td>2190 (38.19)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>1041 (27.29)</td>
<td>1212 (25.28)</td>
<td>1384 (24.13)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>3815 (100)</td>
<td>4794 (100)</td>
<td>5735 (100)</td>
</tr>
<tr>
<td>SD</td>
<td>325.12</td>
<td>427.74</td>
<td>584.32</td>
</tr>
<tr>
<td>MEAN</td>
<td>953.75</td>
<td>1198.50</td>
<td>1433.75</td>
</tr>
<tr>
<td>CV</td>
<td>34.09</td>
<td>35.69</td>
<td>40.75</td>
</tr>
</tbody>
</table>

Note: Figures in brackets indicate percentage of High Schools
SD: Standard Deviation
CV: Coefficient of Variation
Per lakh population of high schools were highest i.e., 48.72 in Bangalore division and the lowest by 19.79 in Mysore division in high school per lakh population in 2004-05.

The Bangalore division had the highest i.e., 179.67 percent growth rate of high schools from 1984-2005, Belgaum division had the lowest i.e., 120.85 percent in 1984-2005. Coefficient of variation for this indicator was 34.09 percent in 1984-85 and increased to 35.69 percent in 1990-91 and 40.76 percent in 1994-95 but declined to 38.88 percent in 2004-05.

3.2.7 Division Wise High School Enrollment

The details in the below table 3.7 that there has been a slow increase in the number of high schools enrollment per thousand in the 4 division of Karnataka State since 1984-85 to 2004-05.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Karnataka</td>
<td>210</td>
<td>295</td>
<td>504</td>
<td>504</td>
<td>497</td>
</tr>
<tr>
<td>Belgaum Division</td>
<td>(25.80)</td>
<td>(27.54)</td>
<td>(26.40)</td>
<td>(24.78)</td>
<td>(23.95)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>105</td>
<td>104</td>
<td>274</td>
<td>56.19</td>
<td>32.67</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>398</td>
<td>479</td>
<td>651</td>
<td>754</td>
<td>14.98</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>101</td>
<td>133</td>
<td>441</td>
<td>502</td>
<td>31.68</td>
</tr>
<tr>
<td>Karnataka</td>
<td>814</td>
<td>1071</td>
<td>1577</td>
<td>1689</td>
<td>2034</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate High School Enrollment
SD: Standard Deviation
CV: Coefficient of Variation
The 754 thousands of high schools enrollment in Bangalore division in 2004-05 and 274 thousands of high schools enrollment was the lowest in Gulbarga division in year 2004-05.

Karnataka State had a total number of 149.88 growth rate of high schools enrollment per thousand populations. The division wise data indicates that Mysore division had the highest (397.03) growth rate of high schools students follow by Gulbarga division (160.95), Belgaum division (140.00) and very lowest in Bangalore division (89.45) in case of growth rate of high schools enrollment per thousand population. Coefficient of variation was 68.37 percent in 1984-85, consistently declined over the time and it was 36.66 percent in 2004-05.

3.2.8 Pre-University Colleges

The table 3.8 that Karnataka had a total number of 2485 Pre-university colleges. Division wise data indicates that Bangalore had the highest number i.e., 944 (37.99 percent) followed by Mysore division 618 (24.87 percent), Belgaum division 552(22.21 percent) and last in Gulbarga division was lowest in 371(14.93 percent) in case of Pre-university colleges for the period 2004-05.
### Table 3.8

**Distribution of Division Wise Pre-University Colleges**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Pre-University Colleges</th>
<th>Pre-University Colleges Per Lakh Population</th>
<th>Growth Rate of Pre-University Colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>170</td>
<td>314</td>
<td>358</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>131</td>
<td>202</td>
<td>225</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>58</td>
<td>490</td>
<td>536</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>96</td>
<td>316</td>
<td>336</td>
</tr>
<tr>
<td>Karnataka</td>
<td>455</td>
<td>1322</td>
<td>1455</td>
</tr>
</tbody>
</table>

| SD               | 47.91    | 118.93  | 128.74  | 186.47  | 239.16  |
| MEAN             | 113.75   | 330.50  | 353.75  | 490.00  | 621.25  |
| CV               | 42.11    | 35.99   | 35.39   | 38.05   | 38.50   |


**Note:** Figures in Brackets Indicate Percentage of P.U Colleges

**SD:** Standard Deviation

**CV:** Coefficient of Variation
State average, number per-University colleges of lakh population was 8.11 percent, of which Bangalore division had 12.81 percent followed by Belgaum division 8.29 percent, Gulbarga division was 7.67 percent and lowest by 5.25 percent in Mysore division for per lakh population accounting for the period of 2004-05.

State average growth rate of per-University colleges was 446.15. Bangalore division had 1527.59 growth rate which is highest followed by Mysore division 543.75, Belgaum had 224.71 growth rate and the lowest is in Gulbarga division accounting for 183.21 percent of growth rate per lakhs population for the period 1984-2005. Coefficient of variation was 35.99 percent in 1984-85 and declined to 35.39 percent in 19994-95 but increased to 38.60 percent in 2004-05.

3.2.9 PRE-UNIVERSITY COLLEGE ENROLLMENT

The details in the above table-3.9 indicate the number of Pre-University college enrollment. Bangalore division had 287 thousands and Gulbarga division stands low i.e., 99 thousands Pre-university college enrollment for year 2004-05.
<table>
<thead>
<tr>
<th>Divisions</th>
<th>Pre-University Colleges Enrollment (000)</th>
<th>Growth Rate of Pre-University Colleges Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>102</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>26.29</td>
<td>26.24</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>11.60</td>
<td>12.26</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>140</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>36.08</td>
<td>37.20</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>101</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>26.03</td>
<td>24.30</td>
</tr>
<tr>
<td>Karnataka</td>
<td>388</td>
<td>465</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>39.13</td>
<td>47.52</td>
</tr>
<tr>
<td>MEAN</td>
<td>97.00</td>
<td>116.25</td>
</tr>
<tr>
<td>CV</td>
<td>40.34</td>
<td>40.88</td>
</tr>
</tbody>
</table>

Table 3.9
Distribution of Division Wise Pre-University College Enrollment

Note: Figures in Brackets Indicate Percentage of P U College
SD: Slandered Deviation
CV: Coefficient of Variation
Growth rate of enrollment in Gulbarga division was much higher i.e., of 120.00 percent growth rate compared to the total Pre-university College enrollment growth rate of Belgaum division which was of 78.43 percent during the period 1984-2005. No significant change in coefficient of variation during the study period except 2000-01.

3.2.10 HIGHER EDUCATION IN KARNATAKA

Higher and technical education in Karnataka is imparted by Government and private colleges affiliated to recognized universities and deemed universities. The colleges are classified and recognized as Arts, Science, Commerce and Oriental Learning Colleges by the University Grants Commission, while the technical and professional colleges are recognized by All India Council for Technical Education (AICTE). Universities are of three kinds (unitary and affiliated, state and central), deemed universities, and institutes of national importance (Gupta, 2005). Education is a state subject. Each state has the power to create, accredit and fund schools and universities. At the same time a number of schools and universities are run directly by the Central Government, creating a dual management system. While many technical schools and colleges are managed and run by private organizations, even those affiliated to Government Universities. Almost all universities are government funded. At the apex of the system are national research institutes.

3.2.11 DIVISION WISE HIGHER EDUCATION INSTITUTIONS

Education is an essential element of human resource development. Education is the basis for economic and social change. Higher education is no less important from the point of view of human resource development. Higher education comprises both general and technical education. An important component of human resource development is technical education. Technical education enables a country to develop on the economic scale.

The development of higher educational facilities at all levels and has been presented in the below Table-3.10. The table reveals that there has been a good deal of expansion of educational institutions at all levels. Karnataka State has adopted the objectives of universal higher education.
### Table-3.10

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Higher Education Institutions</th>
<th>Higher Education Institutions Per Lakh Population</th>
<th>Growth Rate of Higher Education Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>46 (15.97)</td>
<td>57 (21.76)</td>
<td>70 (23.65)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>74 (25.69)</td>
<td>55 (20.99)</td>
<td>47 (15.88)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>119 (41.32)</td>
<td>101 (38.55)</td>
<td>120 (40.54)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>49 (17.01)</td>
<td>49 (18.70)</td>
<td>59 (19.93)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>288 (100)</td>
<td>262 (100)</td>
<td>296 (100)</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>33.75</td>
<td>23.91</td>
<td>32.07</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>72.00</td>
<td>65.50</td>
<td>74.00</td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>46.88</td>
<td>36.50</td>
<td>43.34</td>
</tr>
</tbody>
</table>

**Source:** Karnataka at a Glance 1984-1991-1995-2001-2005

**Note:** Figures in Brackets Indicate Percentage of Higher Education Intuitions.

**SD:** Slandered Deviation

**CV:** Coefficient of Variation
Division wise data indicates that Bangalore had the maximum number of 1154 (39.64 percent) higher education institution and Mysore division had less than 421 (14.46 percent) higher education institutions in the period 2004-05.

Similarly, Bangalore division had more 15.66 higher education institutions, per lakhs population and Mysore division had less 3.57 higher education institutions per lakh population as compared to Bangalore division for the period 2004-05.

The growth rate in higher education institution in Karnataka rose from 1995-2001 to 1984-2005. But the figure went down to –9.03 in 1984-1991. Belgaum division has 1408.70 growth rate of higher education institution as highest and Mysore division has lowest i.e., 759.18 growth rate of higher education institution in 1984-2005. Coefficient of variation shows that fluctuating trend for the period 1984-85 to 2004-05 and regional disparities almost all same.
1.2.12 Higher Education Enrollment

Distribution of division wise Higher education enrollment and growth rate for various relative indicators for the division of Karnataka along with the State as a whole has been shown in table 3.11. The table indicates the number of PG Professional, technical, B.Ed, B.A. degree students who come under higher education. Table provides information that higher education degree enrollment in Bangalore division was higher about 3,80,398 (39.86 percent) as compared to Mysore division which is quite low in the division i.e., 1,25,339 (13.13 percent) of higher education enrollment during the period of 2004-05.

Table-3.11
Distribution of Division Wise Higher Education Enrollment

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Higher Education Enrollment</th>
<th>Growth Rate Higher Education Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>17341</td>
<td>21242</td>
</tr>
<tr>
<td></td>
<td>(17.65)</td>
<td>(18.42)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>11034</td>
<td>13023</td>
</tr>
<tr>
<td></td>
<td>(11.23)</td>
<td>(11.29)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>45340</td>
<td>54180</td>
</tr>
<tr>
<td></td>
<td>(46.14)</td>
<td>(46.97)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>24560</td>
<td>26901</td>
</tr>
<tr>
<td></td>
<td>(24.99)</td>
<td>(23.32)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>98275</td>
<td>115346</td>
</tr>
<tr>
<td></td>
<td>(100.00)</td>
<td>(100.00)</td>
</tr>
<tr>
<td>SD</td>
<td>14909.45</td>
<td>17830.52</td>
</tr>
<tr>
<td>MEAN</td>
<td>24568.75</td>
<td>28836.50</td>
</tr>
<tr>
<td>CV</td>
<td>60.68</td>
<td>61.83</td>
</tr>
</tbody>
</table>

Note: Figures in brackets indicate percentage of Higher Education Students
Analysis shows that the growth rate in Gulbarga division was highest i.e., 1889.695 percent growth rate of enrollment followed by Belgaum division which had 1221.556 percent, Bangalore division accounted for 738.9899 percent and lowest growth rate of enrollment i.e., 410.3379 percent was in Mysore division during the study 1990-2005. In case enrollment in higher education Coefficient of variation was 60.68 per cent in 1990-91 and reduced to 44.21 per cent in 2004-05.

3.2.13 DIVISION WISE UNIVERSITIES

Table-3.12 presents details of the distribution of division wise universities per thousand km in Karnataka during last twenty years from 1984-85 to 2004-05.
### Table-3.12
Distribution of Division Wise Universities

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Universities</th>
<th>Universities Per 1000 sq km</th>
<th>Growth Rate of Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(14.29)</td>
<td>(22.22)</td>
<td>(20.00)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(14.29)</td>
<td>(11.11)</td>
<td>(20.00)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(42.86)</td>
<td>(44.44)</td>
<td>(40.00)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(28.57)</td>
<td>(22.22)</td>
<td>(20.00)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>7</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>0.96</td>
<td>1.26</td>
<td>1.00</td>
</tr>
<tr>
<td>ME</td>
<td>1.75</td>
<td>2.25</td>
<td>2.50</td>
</tr>
<tr>
<td>CV</td>
<td>54.71</td>
<td>55.92</td>
<td>40.00</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of University
SD: Slandered Deviation
CV: Coefficient of Variation
Table-3.12 reveals that the in Karnataka, universities increased in year-wise from 7,9,10, 12 and 18 during the years 1984-85, 1990-91, 1994-95, 2000-01 and 2004-05 respectively.

It is evident from the table-3.12 that, the Bangalore division had more i.e., 8 universities as compared to Mysore division which has only 2 universities for Karnataka State during the period 2004-05.

Bangalore division enjoyed a high level of status of relative development in case of universities 0.161 per thousand Sq.km. Similarly Mysore division, has less Universities i.e., 0.146 per thousand km in the year 2004-05. The Karnataka State had 157.14 per cent universities growth rate including all divisions the period from 1984-2005. Division wise data indicates that Belgaum and Gulbarga division has 300 percent as compared to Mysore division which is nil in the growth rate and Bangalore division is the lowest in growth rate in universities during the period 1984-2005. Coefficient of variation in number of universities reveals that fluctuation trend. Coefficient of variation has been declined from 54.71 per cent in 1984-85 to 1994-95 and increased 55.92 per cent in 2004-05.
3.2.14 LIBRARIES

Division wise distribution of libraries and their growth rate from 1990-91 to 2004-05 is given in the table -3.13

Table -3.13

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>1073</td>
<td>493</td>
<td>716</td>
<td>938</td>
<td>-54.05</td>
<td>45.23</td>
<td>31.01</td>
<td>-12.58</td>
</tr>
<tr>
<td></td>
<td>(31.59%)</td>
<td>(27.24%)</td>
<td>(26.05%)</td>
<td>(26.54%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>703</td>
<td>354</td>
<td>524</td>
<td>650</td>
<td>-49.64</td>
<td>48.02</td>
<td>24.05</td>
<td>-7.54</td>
</tr>
<tr>
<td></td>
<td>(20.69%)</td>
<td>(19.56%)</td>
<td>(19.06%)</td>
<td>(18.39%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>561</td>
<td>545</td>
<td>867</td>
<td>1053</td>
<td>-2.85</td>
<td>59.08</td>
<td>21.45</td>
<td>87.70</td>
</tr>
<tr>
<td></td>
<td>(16.51%)</td>
<td>(30.11%)</td>
<td>(31.54%)</td>
<td>(29.80%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mysore Division</td>
<td>1060</td>
<td>418</td>
<td>642</td>
<td>893</td>
<td>-60.57</td>
<td>53.59</td>
<td>39.10</td>
<td>-15.75</td>
</tr>
<tr>
<td></td>
<td>(31.20%)</td>
<td>(23.09%)</td>
<td>(23.35%)</td>
<td>(25.27%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Karnataka</td>
<td>3397</td>
<td>1810</td>
<td>2749</td>
<td>3534</td>
<td>-46.72</td>
<td>51.88</td>
<td>28.56</td>
<td>4.03</td>
</tr>
<tr>
<td></td>
<td>(100.00%)</td>
<td>(100.00%)</td>
<td>(100.00%)</td>
<td>(100.00%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>257.52</td>
<td>83.84</td>
<td>143.57</td>
<td>169.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>849.25</td>
<td>452.50</td>
<td>687.25</td>
<td>883.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>30.32</td>
<td>18.53</td>
<td>20.89</td>
<td>19.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures in brackets indicate percentage of Libraries

There were 3397 libraries in Karnataka, out of 1073 (31.59 percent) were in Belgaum division, which was highest, followed by 1060 (31.20 percent) in Mysore division and lowest by 561 (16.51 percent) in Bangalore division during the period of 1990-91. The number of libraries decreased during 1994-95 and 2000-01, in this period Bangalore division had more number of libraries i.e., 545 and 867 and Belgaum division stands second. In 2004-05, the total number of libraries in Karnataka were 3534, the highest i.e., 1053(29.30 percent) were in Bangalore division followed by 938 (26.54 percent) in Belgaum division and 650 (18.39 percent) in Gulbarga division. After 1995 the number of libraries increased up till 2005.
In 1995-01 the growth rate of libraries in Karnataka was 51.88, 59.08 were in Bangalore divisions and lowest i.e., 45.23 were in Belgaum division. The highest growth rate in libraries i.e., 39.10 were in Mysore division followed by 31.01 in Belgaum division and lowest by 21.45 were in Bangalore division during 2001-05. There was no negative growth of libraries in all the division Karnataka.

There was negative growth in Belgaum, Gulbarga and Mysore division. But Bangalore division had positive growth with 87.70 percent in the last 15 years. Coefficient of variation was 30.32 percent in 1990-91 and has decreased to 19.20 percent in 2004-05.

3.3 HEALTH SERVICES

Karnataka State is one or the pioneer states in the country in providing comprehensive Public Health Services to its people. Even before the concept of Primary Health Centers was conceived by the government of India, the state had already made a beginning in this regard by establishing a number of Primary Health Units for providing comprehensive health care in delivery system consisting of Curative, preventive, Primitive and Rehabilitation health care to the people of the state as ‘Health’ is an asset of every community. The Department is rendering the following services through its Network of Medical and Health Institutions in the State.

Primary Health Care is one of the items under the restructured 20-point programme in Karnataka, Under Development Programme. The state is following the National Pattern of three tiers Health Infrastructure in rendering Primary Health Care through Sub – Centers, Primary Health Centers and Community Health Centers. The policy of the Government is to establish one sub – centre with Female/Male Health Workers for 3000 population in hilly and tribal area. One Primary Health Centers for every 30,000 population in plain areas and for every 20,000 population in hilly and tribal areas and one Community Health Centre for 1,20,000 population by up graduation one out of four primary health centers to function as referral / specialized institution for the rural population.
Karnataka state has so far been providing these services through the Ministry of Health, which is responsible for policy matters and the Directorate of Health and Family Welfare is purpose, it has an elaborate set up, at state, district and lower levels. In 1993, with the constitutional amendment, the state placed the health in the purview of local bodies, namely Panchayats. These Panchayats are the local manifestation of the state. Health is today set in a complex content of multiple levels of government action in Karnataka. The Zilla Panchayat act as a conduit for the transfer of funds, and the fiscal responsibilities still remain with the government of Karnataka. The implementation is still mainly with the department, and elected representatives have started making demands upon the staff of the health department in the local areas.

3.3.1 STATE GOVERNMENT HOSPITALS

The following table-3.14 reveals division wise distribution of Government Hospitals in Karnataka State from 1984-85 to 2004-05.
Table -3.14
Distribution of Division Wise State Government Hospitals

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of State Government Hospitals</th>
<th>Government Hospitals Per 1000 sq km</th>
<th>Growth Rate of Government Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>45 (19.07)</td>
<td>68 (23.61)</td>
<td>49 (27.84)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>28 (11.02)</td>
<td>43 (14.93)</td>
<td>38 (21.59)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>88 (37.29)</td>
<td>107 (37.15)</td>
<td>44 (25.00)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>77 (32.63)</td>
<td>70 (24.31)</td>
<td>45 (25.57)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>236 (100)</td>
<td>288 (100)</td>
<td>176 (100)</td>
</tr>
<tr>
<td>SD</td>
<td>90.30</td>
<td>110.49</td>
<td>66.90</td>
</tr>
<tr>
<td>MEAN</td>
<td>106.75</td>
<td>127.00</td>
<td>75.75</td>
</tr>
<tr>
<td>CV</td>
<td>84.59</td>
<td>87.00</td>
<td>88.32</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Government Hospitals
SD: Slandered Deviation
CV: Coefficient of Variation
It can be seen from above table the highest number i.e., 88 (37.29 percent) hospitals come under Bangalore division followed by 77 (32.63 percent) hospitals in Mysore division and the lowest is 26 (11.02 percent) hospitals come in Gulbarga division during 1984-85.

The Government Hospitals has increased in the period 1990-91 in all division, 107 were in Bangalore division was the highest followed by 70 in Mysore division, 68 in Belgaum division and lowest 43 in Gulbarga division for 1994-95 period. From 2000-01 to 2004-05 the percentage remained constant in all the divisions. But Belgaum division accounted for 24.80 percent, Gulbarga 23.73 percent. Bangalore and Mysore 25.99 percent respectively. However the numbers of Government Hospitals have been decreased from 288 to 177 compared to 1990-91.

The number of Government Hospitals per 1000 Sq.km was 1.23 in Karnataka, 1.77 was in Bangalore division and lowest i.e., 0.59 were in Gulbarga division in 1984-85. The Government Hospitals have increased by 2.15 per 1000 Sq.km. in Bangalore division followed by 1.61 in Mysore division the lowest 0.97 in Belgaum division in 1990-91. After 1990-91 periods per 1000 Sq.Km. Hospitals has slightly changed during 2004-05.
The growth rate of Government Hospitals was highest i.e., 38.89 in Karnataka State for 1991-95 compared to 1984-91. But growth rate of hospitals increased during 1984-91, 65.38 were in Gulbarga division followed by 51.11 in Belgaum division. There was negative growth rate 9.09 in Mysore division in 2004-05 period, at two divisions hospital have not grown like Bangalore and Mysore division. But overall growth rate of Government Hospitals has increased compared to 1984 period in all division of Karnataka State. Coefficient of variation was 84.59 percent in 1984-85; it increased to 88.25 percent in 2000-02 and has been decreased to 85.62 percent in 2004-05.

3.3.2 GOVERNMENT HOSPITAL BEDS

Table -3.15 reveals division wise distribution of Government Hospital beds and beds per lakh population and growth rate of hospitals beds from 1984-85 to 2004-05.
Table 3.15
Distribution of Division Wise State Government Hospital Beds

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of State Government Hospital Beds</th>
<th>Government Hospital Beds Per Lakh Population</th>
<th>Growth Rate of Government Hospital Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum</td>
<td>3870</td>
<td>5891</td>
<td>4503</td>
</tr>
<tr>
<td>Division</td>
<td>(13.36)</td>
<td>(17.05)</td>
<td>(19.45)</td>
</tr>
<tr>
<td>Gulbarga</td>
<td>2236</td>
<td>3415</td>
<td>3416</td>
</tr>
<tr>
<td>Division</td>
<td>(7.72)</td>
<td>(9.88)</td>
<td>(14.76)</td>
</tr>
<tr>
<td>Bangalore</td>
<td>12848</td>
<td>15667</td>
<td>8559</td>
</tr>
<tr>
<td>Division</td>
<td>(44.36)</td>
<td>(45.34)</td>
<td>(36.98)</td>
</tr>
<tr>
<td>Mysore</td>
<td>10010</td>
<td>9584</td>
<td>6670</td>
</tr>
<tr>
<td>Division</td>
<td>(34.56)</td>
<td>(27.73)</td>
<td>(28.81)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>28964</td>
<td>34557</td>
<td>23148</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>5017.29</td>
<td>5326.90</td>
<td>2290.12</td>
</tr>
<tr>
<td>MEAN</td>
<td>7241.00</td>
<td>8639.25</td>
<td>5787.00</td>
</tr>
<tr>
<td>CV</td>
<td>69.29</td>
<td>61.68</td>
<td>39.57</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Beds
SD: Slandered Deviation
CV: Coefficient of Variation
It can be seen from above table that 44.36 percent of Beds were available in Bangalore division followed by 34.56 percent in Mysore division and lowest of 7.72 percent were available in Gulbarga division for 1984-85. The number of beds i.e., 34557 were there in Karnataka, out of that 15667 (45.34 percent) were in Bangalore division followed by 9584 (27.73 percent) in Mysore division and lowest by 3415 (9.88 percent) in Gulbarga division during 1990-91. The percentage of beds did not change in three divisions like Belgaum, Bangalore and Mysore. The number of beds in Gulbarga division increased after 1990-91 period.

The total numbers of beds available per lakh population i.e., 147.38 were in Karnataka for the period 1984-85, but Bangalore had highest beds per lakh population (201.73). The decrease in coefficient of variation has from 69.25 percent in 1984-85 to 35.53 percent in 2004-05.

### 3.3.3 PRIMARY HEALTH CENTERS

Table -3.16 shows that division wise distribution of Primary Health Centers, their percentage, per 100 Sq.km and growth rate from 1984-85 to 2004-05.
### Table -3.16
Distribution of Division Wise Primary Health Centers

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Primary Health Centers</th>
<th>Primary Health Centers Per 1000 sq km</th>
<th>Growth Rate of Primary Health Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>95</td>
<td>316</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>(27.62)</td>
<td>(24.54)</td>
<td>(24.75)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>49</td>
<td>204</td>
<td>262</td>
</tr>
<tr>
<td></td>
<td>(14.24)</td>
<td>(17.57)</td>
<td>(17.96)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>105</td>
<td>241</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>(30.52)</td>
<td>(20.76)</td>
<td>(27.07)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>95</td>
<td>400</td>
<td>444</td>
</tr>
<tr>
<td></td>
<td>(27.62)</td>
<td>(34.45)</td>
<td>(30.43)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>344</td>
<td>1161</td>
<td>1459</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>86.74</td>
<td>77.03</td>
</tr>
<tr>
<td></td>
<td>MEAN</td>
<td>290.25</td>
<td>364.75</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>29.20</td>
<td>29.89</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Primary Health Centers
SD: Slandered Deviation
CV: Coefficient of Variation
Source: Table-3.16

Table-3.16 gives information about Primary Health Centers totally 344 Primary Hospitals were in Karnataka, out of this 105 (30.52 percent) were in Bangalore division followed by 95 (27.62 percent) in Belgaum division and lowest by 49 (14.24 percent) in Gulbarga division for the year 1984-85. The numbers of Primary Health Centers increased during 1990-91. There were 1161 Primary Health Centers in Karnataka, out of that 400 (34.45 percent) were in Mysore division followed by 316 (27.22 percent) in Belgaum division and lowest by 204 (17.57 percent) were in Gulbarga division. The number of Primary Health Centers increased at all division every year up till 2004-05, there were 1698 Primary Health Centers in Karnataka, the highest number i.e., 516 (30.39 percent) Primary Health Centers were in Mysore division followed by 469 (27.62 percent) in Bangalore division and lowest by 295 (17.37 percent) in Gulbarga division.

Primary Health Centers per 1000 Sq.km in Karnataka were i.e., 1.79 during in 1984-85. Bangalore division had more Primary Health Centers for 1000 Sq.Km i.e., 2.11 followed by 2.18 in Mysore division and lowest by 1.11 in Gulbarga division. The number of Primary Heath Centers available for 1000 Sq.km is more during the year 1990-91 and 2004-05. They ranged from 6.05 and 8.85 for per lakh population. Mysore division had more Primary Health
Center i.e., 9.20 in 1990-91, 11.87 in 2004-05 which was highest, But the lowest i.e., 4.63 and 6.69 were in Gulbarga division.

The growth rate of primary health centers has been increased in every year there is no negative growth rate of primary health at all divisions of Karnataka State. Regional disparities declined which is indicated by coefficient of variation which declined from 29.20 percent in 1984-85 to 22.42 percent in 2004-05.

3.3.4 PRIMARY HEALTH CENTRE BEDS

Table -3.17 gives information about division wise distribution of beds of Primary Health Centers, i.e., beds for per lakh population and their growth rate from 1984-85 to 2004-05.
### Table 3.17: Distribution of Division wise Primary Health Centers Beds

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Primary Health Centers Beds</td>
<td>475</td>
<td>1636</td>
<td>2710</td>
<td>3204</td>
<td>3310</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>(15.62)</td>
<td>(13.76)</td>
<td>(15.60)</td>
<td>(15.60)</td>
<td>(15.60)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>(13.15)</td>
<td>(29.16)</td>
<td>(30.82)</td>
<td>(31.15)</td>
<td>(31.15)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>(31.84)</td>
<td>(33.94)</td>
<td>(32.28)</td>
<td>(32.71)</td>
<td>(32.71)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>324</td>
<td>297</td>
<td>1979</td>
<td>2363</td>
<td>2429</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>(13.71)</td>
<td>(13.39)</td>
<td>(20.36)</td>
<td>(31.36)</td>
<td>(31.36)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>(15.62)</td>
<td>(15.62)</td>
<td>(15.62)</td>
<td>(15.62)</td>
<td>(15.62)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>5.58</td>
<td>5.58</td>
<td>5.58</td>
<td>5.58</td>
<td>5.58</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>4.94</td>
<td>4.94</td>
<td>4.94</td>
<td>4.94</td>
<td>4.94</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>3.98</td>
<td>3.98</td>
<td>3.98</td>
<td>3.98</td>
<td>3.98</td>
</tr>
<tr>
<td>Karnataka</td>
<td>4.30</td>
<td>4.30</td>
<td>4.30</td>
<td>4.30</td>
<td>4.30</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Primary Health Centers Beds
SD: Standard Deviation
CV: Coefficient of Variation

---

**Table 3.17 Notes:**
- Percentages indicate the distribution of Primary Health Centers Beds across different divisions.
- SD: Standard Deviation
- CV: Coefficient of Variation

---

**Table 3.17 Source:**
- SD: Standard Deviation
- CV: Coefficient of Variation

---

**Table 3.17CV:**
- Calculation of Growth Rates and Percentages.
It can be seen from the above table Mysore division had more number i.e., 480 (28.10 percent) beds followed by 475 (27.81 percent) in Belgaum division and lowest by 294(17.21 percent) in Gulbarga division. A total of 1708 beds were made available in Karnataka in year 1984-85. The number of beds tremendously increased for the year 1990-91 i.e., 7069, out of that 2399 (33.94 percent) were in Mysore division followed by 2061 (29.16 percent) in Bangalore division and lowest by 973 (13.76 percent) in Gulbarga division. The number of beds increased in all division of Karnataka. There were 15893 beds available during 2004-05 in Karnataka. The highest i.e., 5198 (32.71 percent) of beds were in Mysore division, followed by 4956 (31.18 percent) in Bangalore division and 3310(20.83 percent) of beds were available in Belgaum division.

Availability of beds per lakh population was more i.e., 10.97 in Bangalore division, 5.58 in Belgaum division and lowest by 4.30 in Mysore division during 1984-85. The total numbers of beds increased, but availability of beds for per lakh population was very less in all division for the same year. Total 3.13 bed facilities were available for per lakh population during 1994-95, out of that 4.97 were in Bangalore division, 4.88 in Mysore divisions and lowest by 1.30 in Belgaum division for the year 2004-05.

Beds in Primary Health Center increased at all division every year in Karnataka State. The growth rate was 313.88 in Karnataka during 1984-91. 399.79 were in Mysore division, 349.02 in Bangalore division and lowest i.e., 230.95 were in Gulbarga division. The highest growth rate was 103.39 in Gulbarga division and lowest by 65.65 in Belgaum division during 1991-95. In 2001-05 the growth rate of beds of Primary Health Centers was 19.52 in Karnataka State 20.05 were in Mysore followed by 19.91 in Bangalore and lowest i.e., 18.23 were in Belgaum division. Coefficient of variation in terms of primary heath centre beds has been declined slightly from 88.92 percent in 1984-85 to 84.03 percent in 2004-05.

3.3.5 PRIMARY HEALTH UNITS

Table -3.18 reflects that division wise distribution of Primary Health Units per 1000 Sq.Km and their growth rate from 1984-85 to 2004-05.
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>304 (24.24)</td>
<td>74 (11.84)</td>
<td>71 (11.83)</td>
<td>68 (11.66)</td>
<td>68 (11.70)</td>
<td>5.58</td>
<td>1.36</td>
<td>1.30</td>
<td>1.25</td>
<td>1.25</td>
<td>-75.66</td>
<td>-4.05</td>
<td>-4.23</td>
<td>0.00</td>
<td>-77.63</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>218 (17.38)</td>
<td>82 (13.12)</td>
<td>70 (11.67)</td>
<td>62 (10.63)</td>
<td>62 (10.67)</td>
<td>4.94</td>
<td>1.86</td>
<td>1.59</td>
<td>1.40</td>
<td>1.40</td>
<td>-62.39</td>
<td>-14.63</td>
<td>-11.43</td>
<td>0.00</td>
<td>-71.56</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>545 (43.46)</td>
<td>256 (40.96)</td>
<td>247 (41.17)</td>
<td>250 (42.88)</td>
<td>249 (42.86)</td>
<td>13.23</td>
<td>6.22</td>
<td>6.00</td>
<td>6.07</td>
<td>6.05</td>
<td>-53.03</td>
<td>-3.52</td>
<td>1.21</td>
<td>-0.40</td>
<td>-54.31</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>187 (14.91)</td>
<td>213 (34.08)</td>
<td>212 (35.33)</td>
<td>203 (34.82)</td>
<td>202 (34.77)</td>
<td>3.60</td>
<td>4.10</td>
<td>4.08</td>
<td>3.91</td>
<td>3.89</td>
<td>13.90</td>
<td>-0.47</td>
<td>-4.25</td>
<td>-0.49</td>
<td>8.02</td>
</tr>
<tr>
<td>Karnataka</td>
<td>1254 (100)</td>
<td>625 (100)</td>
<td>600 (100)</td>
<td>583 (100)</td>
<td>581 (100)</td>
<td>6.54</td>
<td>3.26</td>
<td>3.13</td>
<td>3.04</td>
<td>3.03</td>
<td>-50.16</td>
<td>-4.00</td>
<td>-2.83</td>
<td>-0.34</td>
<td>-53.67</td>
</tr>
<tr>
<td>SD</td>
<td>162.08</td>
<td>92.10</td>
<td>92.90</td>
<td>95.23</td>
<td>94.66</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>313.50</td>
<td>156.25</td>
<td>150.00</td>
<td>145.75</td>
<td>145.25</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CV</td>
<td>51.70</td>
<td>58.95</td>
<td>61.94</td>
<td>65.34</td>
<td>65.17</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage Primary Health Units
SD: Slandered Deviation
CV: Coefficient of Variation
It is seen from above table that the majorities i.e., 43.46 percent of Primary Health Units were in Bangalore division, 24.24 percent in Belgaum division and lowest 14.91 percent in Mysore division during 1984-85. For the year 1990-91, 40.96 percent of primary health unit were in Bangalore division followed by 34.08 in Mysore division and lowest by 11.84 percent in Belgaum division. A total number i.e., 625 Primary Health Units were in Karnataka. Afterwards the number of Primary Health Units decreased in all the division of Karnataka State. 581 Primary Health Units were in Karnataka in 2004-05, out of that 42.86 percent were in Bangalore division and lowest i.e., 10.67 percent were available in Gulbarga division.

The Primary Health Units per 1000 Sq.Km was 6.54 in Karnataka, but 10.97 were in Bangalore division followed by 5.58 in Belgaum division and lowest i.e., 4.30 were in Mysore division for the period 1984-85. 5.15 Per 1000 Sq.km and Primary Health Units were in Bangalore division followed by 4.90 in Mysore division and lowest i.e., 1.36 was in Belgaum division. Later, the primary health units decreased for per 1000 Sq.km till 2004-05 but the Bangalore division always stand highest per 1000 Sq.km in case of Primary Health Units if we take into account every year data.

The growth rate of Primary Health Units has decreased from 1984-85 to 2004-05, there was increases in Bangalore division i.e. 1.21 during 1995-01 and 13.90 in Mysore division during 1984-91 period, the Primary Health Units have not increased in 2004-05. There is zero percent growth of Primary Health Units in Belgaum division and Gulbarga division.

It can conclude that overall growth rate of Primary Health Units decreased except Mysore, it has an increasing growth rate i.e., of 8.02. Coefficient of variations has been in ceased from 51.70 percent in 19984-85 to 66.17 percent in 2004-05.

3.3.6 PRIMARY HEALTH UNITS BEDS

Table-3.19 exhibits division wise distribution of beds of Primary Health Units available for per lakh population and growth rate from 1984-85 to 2004-05.
### Table -3.19

#### Distribution of Division Wise Primary Heath Units Beds

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Primary Health Units Beds</th>
<th>Primary Health Units Beds Per 1000 sq km</th>
<th>Growth Rate Primary of Heath Units Beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>450</td>
<td>184</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>(26.79)</td>
<td>(18.78)</td>
<td>(19.75)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>390</td>
<td>190</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>(23.21)</td>
<td>(19.39)</td>
<td>(11.66)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>630</td>
<td>240</td>
<td>298</td>
</tr>
<tr>
<td></td>
<td>(37.50)</td>
<td>(24.49)</td>
<td>(26.56)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>210</td>
<td>366</td>
<td>364</td>
</tr>
<tr>
<td></td>
<td>(12.50)</td>
<td>(37.35)</td>
<td>(42.03)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>1680</td>
<td>980</td>
<td>866</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

**Source:** Karnataka at a Glance 1984-1991-1995-2001-2005

**Note:** Figures in Brackets Indicate Percentage of Beds

SD: Slandered Deviation

CV: Coefficient of Variation
The above table gives information about beds of Primary Health Units. There were 1680 beds in Karnataka, out of that 630 (37.50 percent) were in Bangalore division, 450 (26.79 percent) in Belgaum division and lowest i.e., 210 (12.50 percent) were in Mysore division during 1984-85. Afterwards, the number of beds increased at all division except Mysore till 2004-05. Mysore division had more number of beds i.e., 366 (37.35 percent) during 1990-91, 364 (42.03 percent) during 1994-95, 452 (40.29 percent) during 2000-01 and 452 (39.93 percent) during 2004-05 respectively. In the last 20 years in Karnataka only 866 beds were available which is very less.

The availability of beds for per lakh population was 8.55 in Karnataka for the period 1984-85, which is highest in 20 years, out of this 12.16 were in Gulbarga division, 9.89 in Bangalore division and lowest i.e., 3.98 in Mysore division.

The highest i.e., 8.51 beds were available in Mysore division followed by 3.84 in Belgaum division and lowest by 3.76 in Bangalore division for 2000-01, which is a very less number for Karnataka i.e., 3.69 for the period 2004-05. It is less in 20 years period; out of this 4.04 were in Bangalore division followed by 3.83 in Mysore divisions and lowest by 3.12 in Gulbarga division.

There was negative growth rate of beds of Primary Health Units in 1984-91 and 1991-95. In the year 1995-01, beds of Primary Health Units increased by 49.50 percent, which was highest in Gulbarga division followed by 29.57 in Bangalore divisions and lowest by 24.18 in Mysore division. For the year 2001-05, 4.52 beds increased in Belgaum division. Coefficient of variations was 41.24 percent in 1984-85 in creased to 51.54 percent in 1994-95 and again declined to 45.12 percent in 2004-05.
3.4 DEVELOPMENT OF TRANSPORT AND COMMUNICATION.

Transport Services

Economic development through agriculture, industry and through in various fields of activity would not yield fruits unless it is accompanied by corresponding improvements in transport facilities. In a vast country like India, which is known for its long distances and for the variety of its terrain and the modes of varied transport, roads constitute one of the most important modes of transport today. At the present time, we have a network of Railways, fast developing Airways and the system of Sea route. Yet, the advance in the manner and speed of transport in the various modes has not detracted the importance which roads occupy in our system of transport. In fact, the importance of roads is being realized and roads are now considered best providers a service for trade or industry. Roads are the only means of transport to reach every village in the country.

India has an extensive road network; roads are divided into the following categories for management and administration purposes. i) National Highways, ii) State Highways, iii) Major District Roads, IV) Other District Roads, and v) Village Roads,

3.4.1 Road Transport in Karnataka

Road transport plays a key role in the development of Karnataka economy. Karnataka State has an extensive road network which serves all types of purpose and provides facilities for vehicles, trucks, buses, cars and bicycle to more on. The various aspects of the socio-economic importance of roads can be summarized as follows.

- Roads are one of the basic infrastructures for socio-economic development, particularly for backward areas. The areas which are not
served by railways, roads are the only means of transport and communication network providers.

- Apart from carrying traffic independently from point to point, our road system is the main feeder to rail system and ports.
- Road transport represents technological advance in the transportation of field. The road transport services can be often faster and more flexible than the rail operations.
- Greater attention is being paid towards increasing the agricultural production sustainability by the adoption of modern methods of agriculture and development of rural and backward areas. In this context, the road transport has an expanding role to play.
- The development of road transport is significant, yet another way, viz, providing an essential communication line. Without road transport the mail and other means of communication can hardly reach the villages or remote areas.
- The road transport being highly labour intensive has a large employment potentiality.
- Potentially of decentralized employment is higher in the case of road transport so far as the maintenance of vehicle and supply of fuel is concerned. Better roads are help to achieve fuel economy and improve the overall production of the road transport sector.

3.4.2 National Highways

The extent of imbalance at transport development within the districts as well as at the State level region is analyzed over the time period ranging from 1984-85 to 2004-2005. Division wise National Highways are presented in Table- 3.20.
### Table 3.20

**Distribution of Divisions wise National Highways**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in km of National Highways</th>
<th>National Highways Per 100 sq km</th>
<th>Growth rate of National Highways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum division</td>
<td>709</td>
<td>709</td>
<td>715</td>
</tr>
<tr>
<td>Gulbarga division</td>
<td>251</td>
<td>251</td>
<td>238</td>
</tr>
<tr>
<td>Bangalore division</td>
<td>597</td>
<td>597</td>
<td>638</td>
</tr>
<tr>
<td>Mysore division</td>
<td>411</td>
<td>411</td>
<td>406</td>
</tr>
<tr>
<td>Karnataka</td>
<td>1968</td>
<td>1968</td>
<td>1997</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>202.28</td>
<td>202.28</td>
<td>218.13</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td>492.00</td>
<td>492.00</td>
<td>499.25</td>
</tr>
<tr>
<td><strong>CV</strong></td>
<td>41.11</td>
<td>41.11</td>
<td>43.69</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of National Highway

SD: Slandered Deviation
CV: Coefficient of Variation
Belgaum division leads the other divisions (in year 2004-05) in terms of road length in km of National Highways i.e., 1248 (31.46 percent) of the States total of 3967 km, followed by Bangalore 1220 km (30.75 percent), Mysore 951 km (23.97 percent) and Gulbarga 514 km (12.96 percent) respectively. The road length in km of National Highway in other divisions has been less than 500 km. Divisions like Gulbarga here at poor levels roads as compared to other divisions in the State.

Bangalore division (in the year 2004-05) had the longest length of National Highways road per 100 Sq.km. Bangalore division topped level development in all areas. Mysore division has topped the list in terms of growth rate of National Highways sharing 131.39 percent for the year 1984-2005.

The share of per 100 Sq of National Highways road in the State is very low the Gulbarga. In this division, the total growth rate of National Highway road of the State is very poor; in case of Belgaum division it was 76.02 for the year 1984-2005. Coefficient shows fluctuating trend in total length ways, it has been increased from 41.11 percent in 1984-85 to 44.33 percent in 2000-01 and again declined to 36.61 percent in 2004-05.

3.4.3 STATE HIGHWAYS

The classification of different divisions in development and the distribution of Division Wise State Highways are as shown in the Table -3.21

Source: Tabal-3.20
### Table-3.21

Distribution of Division wise State Highways

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in k m of State Highways</th>
<th>State Highways Per 100 sq km</th>
<th>Growth rate of State Highways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2310</td>
<td>3113</td>
<td>3130</td>
</tr>
<tr>
<td>Gulbarga division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1816</td>
<td>2363</td>
<td>2363</td>
</tr>
<tr>
<td>Bangalore division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1905</td>
<td>2910</td>
<td>3019</td>
</tr>
<tr>
<td>Mysore division</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>2874</td>
<td>2883</td>
</tr>
<tr>
<td>Karnataka</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8052</td>
<td>11260</td>
<td>11395</td>
</tr>
<tr>
<td>SD</td>
<td>215.06</td>
<td>319.17</td>
<td>339.22</td>
</tr>
<tr>
<td>MEAN</td>
<td>2013.00</td>
<td>2815.00</td>
<td>2848.75</td>
</tr>
<tr>
<td>CV</td>
<td>10.68</td>
<td>11.34</td>
<td>11.91</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage State Highway
SD: Slandered Deviation
CV: Coefficient of Variation
It is observed that in road length i.e., kilometer with State Highways in Karnataka has a length of 8052 km in 1984-85 which increased to 11260 during 1990-91. Further it increased to km 11395 in 1994-95. For the subsequent period of 5 years there was decline in the total road length in km for State Highways, which come down to 11037 in the year 2000-01 and also to a low level of (9590) in 2004-05. Fluctuating trend in the road length in km State Highways rose to 2622 road length in km for State Highways in Bangalore division in the year 2004-05 compared to the previous year. A sharply low level of 2019 length in km for State Highways was in Gulbarga Division in the year 2004-05; details are presented in Table -3.21. State Highway road increased to 6.63 in 2000-01 in Mysore division, per 100 Sq. km and came down to 3.50 in Belgaum division in 2000-01.

Growth rate of State Highways in Karnataka reveals some significant trends during the period from 1984-85 to 2004-05. Growth rate of State Highways of fluctuations in five years declined from 52.76 to 37.63 in the year 1984-91 to 1984-05 in Bangalore division. Gulbarga division shows some decline from 30.12, to 11.17 in year 1984-91 to1984-05 respectively. Coefficient of variation was 10.98 percent in 1984-85, increased to 21.10 percent in 2000-01 and again declined to 11.31 percent in 2004-05.

3.4.4 DISTRICT ROADS

The Distribution of division wise District roads rose to 10667 in 2004-05 in Bangalore division. However, the figure went down to 7219 in 2004-05 in Gulbarga division as shown in the table-3.22
Table 3.22
Distribution of Division wise District Roads

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in km of District Roads</th>
<th>District Roads Per 100 sq km</th>
<th>Growth Rate of District Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>3650   (24.54)</td>
<td>4514 (25.09)</td>
<td>7384 (26.24)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>1960   (13.18)</td>
<td>2810 (15.62)</td>
<td>4591 (16.32)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>4920 (33.08)</td>
<td>5151 (28.63)</td>
<td>7965 (28.31)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>4345 (29.21)</td>
<td>5517 (30.66)</td>
<td>8199 (29.14)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>14875 (100)</td>
<td>17992 (100)</td>
<td>28139 (100)</td>
</tr>
<tr>
<td>SD</td>
<td>1282.33</td>
<td>1199.22</td>
<td>1664.81</td>
</tr>
<tr>
<td>MEAN</td>
<td>3718.75</td>
<td>4498.00</td>
<td>7034.75</td>
</tr>
<tr>
<td>CV</td>
<td>34.48</td>
<td>26.66</td>
<td>23.67</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of District Roads.
SD: Slandered Deviation
CV: Coefficient of Variation
The length in km for district roads in Bangalore and Mysore division rose steadily during the period 1984-85 to 2004-05. The per 100 Sq. km of district roads which recorded more than 24.40 percent of the total per 100 Sq km of district roads in Mysore division in 2004-05 and Bangalore had (21.46 percent), Belgaum division (17.89) and Gulbarga division had the lowest per 100 Sq km of district roads in Karnataka (16.37) during 2004-05.

The growth rate of district roads in 1984-05 in some division was more it was 268.32 in Gulbarga division, compared in Belgaum division it was (167.23), in Bangalore division it was (116.81) in Mysore it was (144.12) during the period 1984-05. Coefficient of variation figures reveal wide inter-division disparities with slightly declining trend over the period. Coefficient of variation was 34.48 percent in 1984-85, reduced (26.66 percent) in 1990-91, but significantly declined (16.91 percent), in 2004-05.

3.4.5 RURAL ROADS

Table -3.23 presents the classification of distribution of division wise length in km for rural roads per 100 Sq.km, and growth rate of rural roads in Karnataka.

Table-3.23 shows developed divisions like Mysore which had a road length of 37948 (32.83 percent) km for rural roads during 2004-05, followed by other division like Bangalore which had 32023 (27.71 percent) in 2004-05.

The data regarding per 100Sq.km of rural roads also providing infrastructure facilities in Karnataka in general, Mysore division stood first with 87.29 per 100 Sq.km of Rural roads as compared to Gulbarga division which is having low level roads per 100 Sq.km in case of Rural roads.

The picture in growth rate of rural roads of the Karnataka State is quite different from 1984-05 in all the four divisions. The developed division like Bangalore, Mysore, and Belgaum had more growth rate of rural roads than other division in Karnataka.
### Table-3.23

**Distribution of Division Wise Rural Roads**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in km of Rural Roads</th>
<th>Rural Roads Per 100 sq km</th>
<th>Growth Rate of Rural Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>9630</td>
<td>10614</td>
<td>7865</td>
</tr>
<tr>
<td>(32.23)</td>
<td>(23.55)</td>
<td>(21.36)</td>
<td>(25.16)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>6530</td>
<td>7111</td>
<td>5335</td>
</tr>
<tr>
<td>(21.85)</td>
<td>(15.78)</td>
<td>(14.49)</td>
<td>(17.52)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>975</td>
<td>12145</td>
<td>10141</td>
</tr>
<tr>
<td>(3.26)</td>
<td>(26.95)</td>
<td>(27.54)</td>
<td>(24.65)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>12745</td>
<td>15200</td>
<td>13486</td>
</tr>
<tr>
<td>(42.85)</td>
<td>(33.73)</td>
<td>(36.62)</td>
<td>(32.67)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>29880</td>
<td>45070</td>
<td>36827</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>5018.63</td>
<td>3363.44</td>
<td>3462.92</td>
</tr>
<tr>
<td>MEAN</td>
<td>7470.00</td>
<td>11267.50</td>
<td>9206.75</td>
</tr>
<tr>
<td>CV</td>
<td>67.18</td>
<td>29.85</td>
<td>37.61</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of Rural Roads.

SD: Slandered Deviation

CV: Coefficient of Variation
### Table 3.24
Distribution of Division Wise Rural Other Roads

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in km of Rural Other Roads</th>
<th>Per 100sq of Rural Other Roads</th>
<th>Growth Rate of Rural Other Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>10128</td>
<td>11935</td>
<td>32678</td>
</tr>
<tr>
<td>(24.42)</td>
<td>(22.41)</td>
<td>(24.24)</td>
<td>(23.03)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>5461</td>
<td>7411</td>
<td>20298</td>
</tr>
<tr>
<td>(13.17)</td>
<td>(13.92)</td>
<td>(15.05)</td>
<td>(13.09)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>11314</td>
<td>16700</td>
<td>39097</td>
</tr>
<tr>
<td>(27.28)</td>
<td>(31.36)</td>
<td>(29.00)</td>
<td>(32.54)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>14569</td>
<td>17203</td>
<td>42759</td>
</tr>
<tr>
<td>(35.13)</td>
<td>(32.31)</td>
<td>(31.71)</td>
<td>(31.34)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>41472</td>
<td>53249</td>
<td>134832</td>
</tr>
<tr>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>CV</td>
<td>36.38</td>
<td>34.52</td>
<td>29.26</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Rural Others Roads
CV: Coefficient of Variation
Whereas under developed divisions, like Gulbarga had a very less growth rate of rural roads, compared to other division. Coefficient of variation in rural road length significantly reduced from 67.18 percent in 1984-85 to 32.63 percent in 2004-05.

3.4.6 RURAL OTHER ROADS

Table-3.24 shows the different sources of distribution of division wise Rural Other Roads, per 100 Sq.km of Rural Other Roads, and growth rate of rural other roads.

Table-3.24 provides the information regarding the length in km of Rural other roads in Karnataka in 4 divisions. Bangalore division stands first with 14500(23.99 percent) as compared to Gulbarga division which is having 9752 (18.82 percent) km length for the period 2004-05.

The list varies per 100 Sq.km. of Rural other roads in Mysore division i.e., 32.08 as compared to Gulbarga division which was very less i.e., 22.11 in 2004-05.
The growth rate of Rural other roads in Karnataka is more in Gulbarga division but the share decreased to 4.29 percent during 1984-05. Coefficient of variation revealed no significant change in the extent of regional disparities in this case of coefficient of variation for the period of 1984-85 to 2000-01, but significantly reduced to 16.71 percent in 2004-05.

3.4.7 REGISTERED VEHICLES

Distribution of division wise registered vehicles as transport plays a significant role in the economy of any region. Bangalore division is favorably placed in this regard as it has a good network of vehicles.
Table -3.25
Distribution of Division Wise Registered Vehicles

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Registered vehicles</th>
<th>Registered vehicles Per Lakh Population</th>
<th>Growth Rate of Registered vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Belgaum Division</td>
<td>117817 (28.23)</td>
<td>249282 (17.40)</td>
<td>609410 (18.19)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>54595 (13.08)</td>
<td>118916 (8.30)</td>
<td>280617 (8.37)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>107414 (25.73)</td>
<td>781602 (54.56)</td>
<td>1784812 (53.26)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>137564 (32.96)</td>
<td>282773 (19.74)</td>
<td>676237 (20.18)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>417390 (100.00)</td>
<td>1432573 (100.00)</td>
<td>3351076 (100.00)</td>
</tr>
<tr>
<td>SD</td>
<td>35447.04</td>
<td>291020.30</td>
<td>654611.64</td>
</tr>
<tr>
<td>mean</td>
<td>104347.50</td>
<td>358143.25</td>
<td>837769.00</td>
</tr>
<tr>
<td>CV</td>
<td>33.97</td>
<td>81.26</td>
<td>78.14</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Registered Vehicles
SD: Slanded Deviation
CV: Coefficient of Variation
The Table-3.25 shows as per 2004-05 years number of registered vehicles of Bangalore division which accounted to 29, 44,875 (54.18 percent). Gulbarga division has less vehicles i.e., 4, 87,759 (8.97 percent) during the year 2004-05. A wide regional disparity in case of coefficient of variation was 33.97 percent in 1984-85, significant in creased to 75.85 percent in 2004-05.

3.4.8 METER GAUGE:

Table 3.26 presents the data relating to three indicators of Railway length of meter gauge viz, total railway length of meter gauge, meter gauge per lakh population and growth of meter gauge Belgaum division accounted highest percent age of rail meter gauge length during the study period. In Gulbarga division railway meter gauge length decaling because of it is converted is to broad gauge.

Per 100Sq.km of Meter Gauge of the different division in different time periods is shown in Table-3.26. Bangalore division has per 100 Sq.km of Meter Gauge and was more i.e., (1.55) in 1984-85 and has declined to 0.61to nil in 1984-85 to 2004-05 in Gulbarga division.

The imbalances were high and there is a slow declining in Gulbarga division, it’s nil and a slow, declining trend is observed over the time period. Because of entire meter gauge converted in to Broad gauge.
### Table-3.26
Distribution of division wise meter Gauge

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length In km of Meter Gauge</th>
<th>Meter Gauge Per 100 sq km</th>
<th>Growth Rate of Meter Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>789  (33.01)</td>
<td>795  (33.06)</td>
<td>795  (45.82)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>271  (11.34)</td>
<td>271  (11.27)</td>
<td>259  (14.93)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>772  (32.30)</td>
<td>735  (11.27)</td>
<td>222  (12.80)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>558  (23.35)</td>
<td>604  (25.11)</td>
<td>459  (26.46)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>2390  (100)</td>
<td>2405  (100)</td>
<td>1735  (100)</td>
</tr>
<tr>
<td>SD</td>
<td>241.72</td>
<td>234.17</td>
<td>262.37</td>
</tr>
<tr>
<td>MEAM</td>
<td>597.50</td>
<td>601.25</td>
<td>433.75</td>
</tr>
<tr>
<td>CV</td>
<td>40.46</td>
<td>38.95</td>
<td>60.49</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Meter Gauge
SD: Slandered Deviation
CV: Coefficient of Variation
It may be observed that the growth rate of Meter Gauge is more in 1984-05 i.e., (100.00) in Gulbarga division as shown in Table-3.26 Reaming three divisions had negative growth rate of Meter Gauge i.e., –2.00.

Thus, the analysis of infrastructure development within the region with the help of the division explicitly shows the different levels of development in different division in the region, therefore, needs a greater attention in the near future. Coefficient variation significant by increased from 40.46 per cent in 1984-85 to 103.97 per cent in 2004-05.

3.4.9 BROAD GAUGE

The data presented in Table -3.27 shows the positions of divisions in railways length of Broad Gauge (show that Figure -3.13)

![Figure-3.13 Distribution of Division wise Broad Gauge](image)

Source: Table-3.27

There has been an almost all time increase in the length in km of Broad Gauge in the divisions like Bangalore, Mysore, Belgaum and Gulbarga. Bangalore division is having highest length in km for Broad Gauge i.e., 847 (30.60 percent) in 2004-05 as compared to Gulbarga division which is very lowest i.e., 423(15.31 percent) length in km Broad Gauge.
Table 3.27
Distribution of Division wise Broad Gauge

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Length in km Broad Gauge</th>
<th>Broad Gauge per 100 sq km</th>
<th>Growth Rate of Broad Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(66.50)</td>
<td>(25.83)</td>
<td>(27.90)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>389</td>
<td>451</td>
<td>464</td>
</tr>
<tr>
<td></td>
<td>(65.84)</td>
<td>(38.83)</td>
<td>(25.50)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>152</td>
<td>200</td>
<td>544</td>
</tr>
<tr>
<td></td>
<td>(25.98)</td>
<td>(29.20)</td>
<td>(45.52)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>44</td>
<td>34</td>
<td>187</td>
</tr>
<tr>
<td></td>
<td>(7.52)</td>
<td>(4.96)</td>
<td>(15.65)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>585</td>
<td>685</td>
<td>1195</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>173.98</td>
<td>205.95</td>
<td>251.13</td>
</tr>
<tr>
<td>MEAN</td>
<td>146.25</td>
<td>171.25</td>
<td>298.75</td>
</tr>
<tr>
<td>CV</td>
<td>118.96</td>
<td>120.26</td>
<td>84.06</td>
</tr>
</tbody>
</table>

Note: Figures in Brackets Indicate Percentage of Broad Gauge
SD: Standard Deviation
CV: Coefficient of Variation
Almost all divisions increased length during the year 1984-85 and 2004-05. More length per 100 Sq.km of Broad Gauge is seen in Bangalore division during 2004-05, in the Gulbarga division it was less 0.96 during 2004-05.

Broad Gauge in four division in Karnataka reveals the significant trend that during the period i.e., from 1984-85 to 2004-05 it increased the growth rate of Broad Gauge in Mysore division which account for 1540.91, km length Bangalore division had 457.24, km length and Gulbarga division 58.74. During 1984-05 i.e., for a period of five years growth rate of Broad Gauge was nil i.e., 10.30 percent for the period 2001-05. Coefficient variation figures reveal wide inter-division disparities with significant decaling trend over the period.

### 3.4.10 RAILWAY STATIONS

Table-3.28 depicts the picture regarding inter-division disparities in total number of railway stations considering three indicator's total railway stations, railway stations per 100 sq km and growth rate of railway stations.

There has been a rise in the Railway Stations in all four divisions of the State between 1984-85 to 2004-05. The rise is quite substantial in case of some division's viz., Bangalore, Belgaum and Mysore division during the period of 1990-91 to 1994-95. In 2004-05, Belgaum and Bangalore divisions accounted highest share of railway stations (31.64 per cent and 32.17 per cent).
### Table-3.28

**Distribution of Division wise Railway Stations**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Railway Stations</th>
<th>Railway Stations Per 100 sq km</th>
<th>Growth rate of Railway stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>NA</td>
<td>92</td>
<td>98</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>NA</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>NA</td>
<td>121</td>
<td>126</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>NA</td>
<td>85</td>
<td>87</td>
</tr>
<tr>
<td>Karnataka</td>
<td>NA</td>
<td>373</td>
<td>381</td>
</tr>
<tr>
<td>SD</td>
<td></td>
<td>20.73</td>
<td>22.77</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>92.50</td>
<td>95.25</td>
</tr>
<tr>
<td>CV</td>
<td></td>
<td>22.41</td>
<td>23.90</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of Railway Station

SD: Slandered Deviation

CV: Coefficient of Variation
The per 100 Sq. km of Railway Stations variations for the period 1984-85 to 2004-05. Per 100 Sq.km of the Railway Stations was 0.23 in Bangalore division in 2004-05 and lowest per 100 Sq.km of Railway Station is 0.12 in Gulbarga division in 2004-05.

It is clear from the details in the above table that the growth rate of broad gauge was 21.74 per cent during the period 1984-85 to 2004-05 in Belgaum division and further negative growth rate of Railway Station is 4.13 in Bangalore division for the period of in 1984-05. Coefficient variation shows fluctuation trend. Coefficient variation declined from 22.41 per cent in 1984-85 to 18.43 per cent in 200-01, and significantly increased to 34.84 per cent in 2004-05.

3.4.11 POST OFFICES:
Table-3.29 shows the distribution of division wise post offices in Karnataka State.

It is indicated in table 3.29 that there is a continuous increase in the number of Post Offices. Mysore division tops the with 27.51 (27.83 percent) as compared with other division like Gulbarga division which accounted for 1827 (18.48 percent) in the period of 2004-05.
The per 100 Sq.km of Post Offices in the State of Karnataka for the year 1984-85 to 2004-05 as indicated in the table 3.7 is 6.33, in Mysore division and less in Gulbarga division i.e., 4.14 during 2004-05.

In case of growth rate of Post Office Bangalore division stands first (6.30) followed by Mysore (4.68), Belgaum (3.01) and Gulbarga (-2.13) during 1984-05. Coefficient variation has been increased from 14.67 per cent in 1984-85 to 17.51 per cent in 2004-05.

3.4.12 TELEPHONE EXCHANGES:

Table-3.30 presents the distribution of division wise Telephone Exchanges are adequacy of infrastructure facility in industrial estates in Karnataka State.

A perusal of Table-3.30 shows that the number of Telephone Exchanges are high in Mysore division i.e., 784(28.95 percent) followed by Bangalore division which is having 741 (27.36 percent), Belgaum division is having 707 (26.11 percent) Gulbarga division stands lest with 476 (17.58 percent) Telephone Exchanges for the year 2004-05.
Telephone Exchanges are more in Mysore division i.e., 1.80 per 100 sq km and very less in Gulbarga division i.e., 1.08 per sq km during 2004-05.

The growth rate of Telephone Exchanges is fluctuating in all division of Karnataka. Good infrastructure development would definitely contribute to greater industrial development in Karnataka. Gulbarga division accounted for high growth rate compared to Mysore division which accounted for 91.22 percent of growth during 1984 to 2005 period. Coefficient of variation has been declined from 43.13 per cent in 1984-85 to 20.33 per cent in 2004-05.
### Table-3.29

**Distribution of Division Wise Post Offices**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Post Offices</th>
<th>Post Offices Per 100 sq km</th>
<th>Growth Rate of Post Offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>2543</td>
<td>(26.64)</td>
<td>2569</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>1866</td>
<td>(19.55)</td>
<td>1873</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>2515</td>
<td>(26.34)</td>
<td>2564</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>2623</td>
<td>(27.47)</td>
<td>2662</td>
</tr>
<tr>
<td>Karnataka</td>
<td>9547</td>
<td>(100)</td>
<td>9668</td>
</tr>
<tr>
<td>SD</td>
<td>350.17</td>
<td>365.46</td>
<td>376.49</td>
</tr>
<tr>
<td>MEAN</td>
<td>2386.75</td>
<td>2417.00</td>
<td>2446.00</td>
</tr>
<tr>
<td>CV</td>
<td>14.67</td>
<td>15.12</td>
<td>15.39</td>
</tr>
</tbody>
</table>


Note: Figures in Brackets Indicate Percentage of Post Offices

SD: Slandered Deviation

CV: Coefficient of Variation
### Table-3.30

**Distribution of Division Wise Telephone Exchanges**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Telephone Exchanges</th>
<th>Telephone Exchanges Per 100 sq km</th>
<th>Growth Rate of Telephone Exchanges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgaum Division</td>
<td>275</td>
<td>(24.55)</td>
<td>418</td>
</tr>
<tr>
<td>Gulgarga Division</td>
<td>120</td>
<td>(10.71)</td>
<td>259</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>315</td>
<td>(28.13)</td>
<td>435</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>410</td>
<td>(36.61)</td>
<td>519</td>
</tr>
<tr>
<td>Karnataka</td>
<td>1120</td>
<td>(100)</td>
<td>1631</td>
</tr>
</tbody>
</table>

SD: Standard Deviation  
CV: Coefficient of Variation

Note: Figures in Brackets Indicate Percentage of Telephone Exchanges

SD: Slandered Deviation  
CV: Coefficient of Variation
### Table -3.31

**Distribution of division wise Telephones**

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Number of Telephones</th>
<th>Telephones Per Lakh Population</th>
<th>Growth Rate of Telephones</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------</td>
<td>----------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Belgaum Division</td>
<td>NA</td>
<td>55000</td>
<td>103867</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(16.43)</td>
<td>(16.10)</td>
</tr>
<tr>
<td>Gulbarga Division</td>
<td>NA</td>
<td>23900</td>
<td>51809</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(7.14)</td>
<td>(8.04)</td>
</tr>
<tr>
<td>Bangalore Division</td>
<td>NA</td>
<td>171400</td>
<td>331602</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(51.21)</td>
<td>(51.49)</td>
</tr>
<tr>
<td>Mysore Division</td>
<td>NA</td>
<td>84400</td>
<td>156925</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(25.22)</td>
<td>(24.37)</td>
</tr>
<tr>
<td>Karnataka</td>
<td>NA</td>
<td>334700</td>
<td>644003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(100)</td>
<td>(100)</td>
</tr>
<tr>
<td>SD</td>
<td>63486.24</td>
<td>121561.23</td>
<td>392669.11</td>
</tr>
<tr>
<td>MEAN</td>
<td>83675.00</td>
<td>161000.75</td>
<td>564138.75</td>
</tr>
<tr>
<td>CV</td>
<td>75.87</td>
<td>75.50</td>
<td>69.61</td>
</tr>
</tbody>
</table>


Note: Figures is Brackets Indicate Percentage of Telephones.

SD: Slandered Deviation

CV: Coefficient of Variation
3.4.13 TELEPHONES:

Table-3.31 presents the data regarding three indicators of telephones number of telephones, telephones per lakh of population and growth rate of telephones. Total number of Telephones in Karnataka was 27,85,781. Out of this 13,29,857 (47.05 percent) were Bangalore division which is highest during 2004-05 and Gulbarga division has lowest i.e., 2,54,669 (9.14 percent) Telephones collection during year 2004-05.

The per lakh population of the region increased by 18042.21 during the period 2004-05 for Bangalore division as compared to Gulbarga division which is having lower 5263.19 Telephones during the year 2004-05.

The table indicates a lower growth rate of telephones as compared to state figures in 2004-05 and 1990-91. The growth rate of telephones in Gulbarga division is high as compared to state figures in 1994-05. Bangalore division stands lest having 675.88 telephones per100 Sq.km. Coefficient of variation slightly declining. Coefficient of variation was 75.87 per cent in 1990-91 and it reduced to 65.62 per cent in 2004-05.
References:


4. Joseph (1946); “The Health Survey and Planning Committees Govt. of India”.

5. “Health Information of India” (1990); G.O.I. Rural Health Burlet in 1992; GOI.


125


