



## **Education and development: A study in Karnataka**

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### **Abstract**

Education is one of the most important components of human capital; Improvements in educational status are the source of significant increase in individual earnings with contributions to business life such as, improved productivity, higher wages and improved employment opportunities for the individuals, whereas the risk of unemployment is decreased. With these features inherent in education improved good stands out as an effective political instrument in the struggle against unemployment and poverty especially in developing countries.

**Keywords:** education, human development, economic growth, literacy

### **1. Introduction**

Education has a significant role to play in developing countries. On the one hand, it fulfills the function of providing quality labour required in the country, while on the other hand, with its production and dissemination of knowledge function, it encourages countries to follow and develop modern manufacturing technologies and to transfer them to the production process. The increase in labour productivity owing to the good education affects the competitiveness of country positively and helps in competition. It needs to be emphasised that many developing countries can't compete with developed countries mainly owing to the poor quality of human resource.

Education is one of the most important components of human capital; Improvements in educational status are the source of significant increase in individual earnings with contributions to business life such as, improved productivity, higher wages and improved employment opportunities for the individuals, whereas the risk of unemployment is decreased. With these features inherent in education improved good stands out as an effective political instrument in the struggle against unemployment and poverty especially in developing countries. The fact that education has important effects on economic growth and human development today is accepted beyond argument. The studies which deal with the effect of education expenditures on growth are highly important in Economics theory. There is a wide range of literature on this issue (Mercan, 2013).

### **2. Objective of the study**

- a. To study the relationship among education, economic growth and human development.
- b. To study economic growth and human development in the districts of Karnataka.
- c. To analysing the link between education level, economic growth and human development.
- d. To see the association among and between different indicators of Education and Economic Growth.

### **A. Education and economic growth**

It is well established that improvements in education are associated with long-term improvements in economic performance. There are three broad theories about the way education influences economic performance:

- The basic human capital approach is that education improves the overall skills and abilities of the workforce, leading to greater productivity and improved ability to use existing technology, and thus contributing to economic growth.
- The innovation approach links education for improving the capacity of the economy to develop of new ideas and technologies.
- An extension of this is the knowledge transfer approach, which sees education as a means of spreading the knowledge needed to apply new ideas and make use of new technologies (OECD, 2010).

However, there is an important question as to whether there is any causal link between education and economic performance, and if so, in what direction. It may be that, the two are associated, but not causally linked. It also could be that better economic performance leads to an increase in educational participation and achievement or it could be that having more people with education leads to improved economic performance (David, 2010).

There is a two way relationship between education and economic growth - Growth can generate virtuous circles of prosperity and opportunity. Strong growth and employment opportunities improve incentives for parents to invest in their children's education by sending them to school. This may lead to the emergence of a strong and growing group of entrepreneurs, which should generate pressure for improved governance. Strong economic growth therefore advances human development, which, in turn, promotes economic growth.

### **B. District Human Development Reports of Karnataka**

Karnataka is among the pioneer states in the preparation of

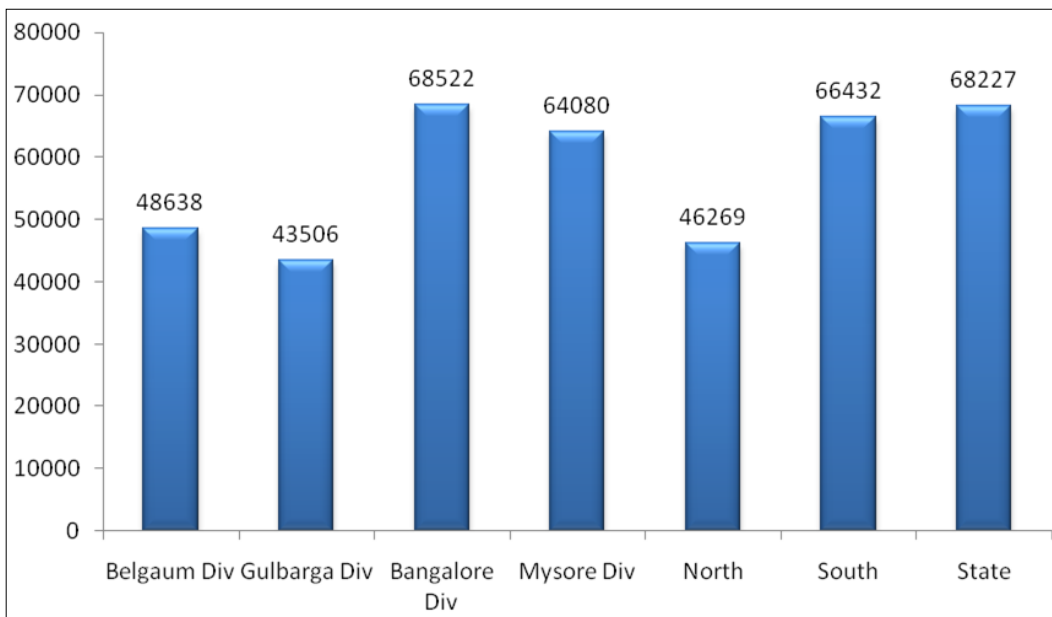
state level human development reports, taking into consideration of all the districts. The state has published already two human development reports for the years 1999 and 2005. In these reports districts have been considered for the construction of indices. Further, recently in 2010, four district level human development reports have been brought out taking into consideration sub district levels. The districts are Udupi, Mysuru, Gulbarga and Bijapur. In these reports taluks have been considered as the units for construction of indices. In Udupi human development report, GP (Gram Panchayath) level human development indices have also been constructed. Udupi and Bijapur Human Development reports have got the awards at the national level. Encouraged by this, Karnataka state government has initiated the process of preparing human development reports district wise as well as taluk-wise.

To do this Herculean task ZPs have been given the responsibility. All the departments of the state have been included. State level coordinating committees have been setup with the group of academicians, subject experts and officials. And most importantly, many Universities and research institutions have been considered as the lead agencies. This work has mostly been complied and soon all district level human development reports will be available in public domain. These reports have not only prepared Human

Development Index (HDI) but also other indices like Gender Inequality Index (GII), Child Development Index (CDI), Food Security Index (FSI), Urban Development Index (UDI), Composite Taluk Development Index (CTDI), Composite District Development Index (CDDI) and Dalit Development Index (DDI). UNDP methodology has been used with some modification in the construction of indices in these reports It is a matter of great pride that the government of Karnataka has been taking initiatives to develop human development reports taluk-wise, covering all its 175 taluks.

**District-wise Economic Growth and Human Development in Karnataka**

Economic growth has been measured with per capita income. The per capita income of Karnataka state is Rs. 68227 during 2012-13. It has not been distributed properly among division & regions North Karnataka has the per capita income of Rs. 46269 whereas; in south Karnataka it had Rs. 66432. South Karnataka has 1.4 fold higher per capita incomes than north Karnataka. Among the divisions Bengaluru division has the highest average per capita income (Rs. 68522) followed by Mysuru division (Rs. 64080). Gulbarga and Belgaum division have lower per capita income of Rs. 43506 and Rs. 48638 respectively (Figure 1).



Source: Computed from data available from Karnataka at a Glance.

Fig 1: Average per capita income of different divisions and regions

Table 1: District-wise Per Capita Net District Product for the year 2011-12

| Districts      | PCNDDP | Rank |
|----------------|--------|------|
| Bagalkote      | 46350  | 18   |
| Belgaum        | 48619  | 14   |
| Bijapur        | 41347  | 21   |
| Dharwad        | 70233  | 6    |
| Gadag          | 43224  | 20   |
| Haveri         | 40092  | 25   |
| Uttara Kannada | 50598  | 13   |
| Bellary        | 66038  | 7    |

|                    |        |    |
|--------------------|--------|----|
| Bidar              | 35526  | 29 |
| Gulbarga           | 40622  | 24 |
| Koppal             | 46975  | 17 |
| Raichur            | 37977  | 27 |
| Yadagiri           | 33895  | 30 |
| Bengaluru Rural    | 94124  | 3  |
| Bengaluru Urban    | 183607 | 1  |
| Chickballapur      | 41176  | 22 |
| Chitradurga        | 39728  | 26 |
| Davangere          | 48453  | 15 |
| Kolar              | 50665  | 12 |
| Ramnagara          | 64454  | 9  |
| Shivamogga         | 50800  | 11 |
| Tumkur             | 43687  | 19 |
| Chamarajanagar     | 35720  | 28 |
| Chikkamagaluru     | 57926  | 10 |
| Dakshina Kannada   | 87012  | 4  |
| Hassan             | 47691  | 16 |
| Kodagu             | 102074 | 2  |
| Mandya             | 40631  | 23 |
| Mysuru             | 65703  | 8  |
| Udupi              | 75885  | 5  |
| State              | 68227  |    |
| <b>CV (%)</b>      |        |    |
| Belgaum Division   | 23.45  |    |
| Gulbarga Division  | 47.67  |    |
| Bengaluru Division | 74.72  |    |
| Mysuru Division    | 29.63  |    |
| North              | 34.42  |    |
| South              | 54.74  |    |
| State              | 50.65  |    |

*Source:* Computed from data available from Karnataka at a Glance.

Table 1 shows district/region wise per capita net district income has been presented. Among the districts Bengaluru (U) has the highest per capita income, which is Rs. 183607. Yadgiri district has the lowest per capita income with only Rs. 33895. Bengaluru (U) district's per capita income is more than 5.4 times than that of Yadgiri district.

The districts like Yadgiri, Bidar, Chamarajanagar, Raichur and Chitradurga are found in the bottom position in per capita district domestic product. Among these 5 districts except Chamarajanagar and Chitradurga are remaining all districts are from Hyderabad Karnataka region. On the other hand among the top five districts in per capita district domestic product all districts namely Udupi, Dakshina Kannada, Bengaluru Rural, Kodagu and Bengaluru Urban are from southern part of the state.

At the end of the table coefficient of variation has been calculated to see the regional imbalances/ inter-district disparity. It is found that north Karnataka has huge inter-

district disparity in per capita district domestic product than south Karnataka. Among the divisions, Bengaluru division has huge inter-district disparity than any other divisions. Further, Belgaum division has very low inter-district disparity among the divisions.

**Table 2:** Division-wise District, which have the Highest and the Lowest out of School Children in Karnataka, 2012-13

| Division  | Highest          | Lowest         |
|-----------|------------------|----------------|
| Belgaum   | Haveri           | Belgaum        |
| Gulbarga  | Koppal           | Yadagiri       |
| Bengaluru | Bengaluru U      | Ramnagara      |
| Mysore    | Dakshina Kannada | Chamarajanagar |

Table 2 shows details related Division-wise district, which have the highest and the lowest wise Per Capita Net District Product for the year 2011-12.

**Table 3:** Human Development Index (HDI) across DISTRICTS with Dimensional Index Values and Ranking in Karnataka, 2014

| Districts | Living Standard Index |      | Health Index |      | Education Index |      | HDI   |      |
|-----------|-----------------------|------|--------------|------|-----------------|------|-------|------|
|           | Value                 | Rank | Value        | Rank | Value           | Rank | Value | Rank |
| Bagalkot  | 0.191                 | 25   | 0.490        | 23   | 0.605           | 15   | 0.384 | 24   |
| Belgaum   | 0.296                 | 18   | 0.556        | 19   | 0.550           | 19   | 0.449 | 18   |
| Bijapur   | 0.144                 | 29   | 0.624        | 14   | 0.400           | 28   | 0.330 | 27   |
| Dharwad   | 0.539                 | 4    | 0.564        | 18   | 0.748           | 3    | 0.610 | 6    |
| Gadag     | 0.208                 | 23   | 0.307        | 27   | 0.670           | 7    | 0.350 | 26   |
| Haveri    | 0.196                 | 24   | 0.542        | 21   | 0.629           | 11   | 0.406 | 21   |

|                  |       |    |       |    |       |    |       |    |
|------------------|-------|----|-------|----|-------|----|-------|----|
| Uttara Kannada   | 0.372 | 14 | 0.776 | 6  | 0.624 | 12 | 0.565 | 10 |
| Bellary          | 0.404 | 11 | 0.240 | 28 | 0.459 | 26 | 0.354 | 25 |
| Bidar            | 0.189 | 26 | 0.653 | 12 | 0.646 | 10 | 0.430 | 19 |
| Gulbarga         | 0.256 | 20 | 0.398 | 25 | 0.659 | 8  | 0.407 | 20 |
| Koppal           | 0.183 | 27 | 0.197 | 29 | 0.613 | 13 | 0.280 | 28 |
| Raichur          | 0.179 | 28 | 0.110 | 30 | 0.231 | 29 | 0.165 | 30 |
| Yadgiri          | 0.084 | 30 | 0.389 | 26 | 0.230 | 30 | 0.196 | 29 |
| Bengaluru (R)    | 0.636 | 3  | 0.713 | 11 | 0.483 | 25 | 0.603 | 7  |
| Bengaluru (U)    | 1.000 | 1  | 0.919 | 2  | 0.868 | 1  | 0.928 | 1  |
| Chikkaballapur   | 0.340 | 16 | 0.619 | 15 | 0.545 | 20 | 0.486 | 16 |
| Chitradurga      | 0.246 | 21 | 0.445 | 24 | 0.523 | 22 | 0.386 | 23 |
| Davanagere       | 0.396 | 13 | 0.523 | 22 | 0.710 | 5  | 0.528 | 14 |
| Kolar            | 0.430 | 9  | 0.612 | 16 | 0.610 | 14 | 0.543 | 11 |
| Ramanagar        | 0.402 | 12 | 0.728 | 10 | 0.517 | 23 | 0.533 | 13 |
| Shivamogga       | 0.458 | 7  | 0.774 | 7  | 0.597 | 17 | 0.596 | 8  |
| Tumakuru         | 0.330 | 17 | 0.649 | 13 | 0.489 | 24 | 0.471 | 17 |
| Chamarajnar      | 0.234 | 22 | 0.607 | 17 | 0.452 | 27 | 0.401 | 22 |
| Chikkamagaluru   | 0.446 | 8  | 0.815 | 5  | 0.677 | 6  | 0.627 | 5  |
| Dakshina Kannada | 0.647 | 2  | 0.848 | 3  | 0.600 | 16 | 0.691 | 2  |
| Hassan           | 0.355 | 15 | 0.819 | 4  | 0.657 | 9  | 0.576 | 9  |
| Kodagu           | 0.527 | 6  | 0.743 | 8  | 0.727 | 4  | 0.658 | 4  |
| Mandya           | 0.287 | 19 | 0.741 | 9  | 0.556 | 18 | 0.491 | 15 |
| Mysuru           | 0.532 | 5  | 0.543 | 20 | 0.524 | 21 | 0.533 | 12 |
| Udupi            | 0.405 | 10 | 1     | 1  | 0.760 | 2  | 0.675 | 3  |
| CV (%)           |       |    |       |    |       |    |       |    |
| Belgaum Div      | 49.68 |    | 25.60 |    | 17.97 |    | 24.27 |    |
| Gulbarga Div     | 49.71 |    | 58.34 |    | 42.49 |    | 36.04 |    |
| Bengaluru Div    | 47.90 |    | 21.04 |    | 21.10 |    | 26.91 |    |
| Mysuru Div       | 32.03 |    | 18.68 |    | 17.01 |    | 17.42 |    |
| North            | 49.73 |    | 43.66 |    | 30.42 |    | 33.20 |    |
| South            | 40.96 |    | 20.53 |    | 18.73 |    | 22.17 |    |
| State            | 51.85 |    | 35.53 |    | 24.06 |    | 32.31 |    |

Source: Karnataka Economic Survey 2014-15.

Table 3 shows details about the district-wise Human Development Indices which have been presented for the year 2014. It is found from the table that HDI value among the district is between 0.165 (Raichur-30<sup>th</sup> rank) and 0.928 (Bengaluru U-1<sup>st</sup> rank). Among the top five good performing districts viz., Bengaluru (U), Dakshina Kannada, Udupi, Kodagu and Chikkamagaluru none of the districts is from north Karnataka, all these districts are from south Karnataka.

Out of five lower performing districts in HDI namely Gadag, Bijapur, Koppal, Yadgiri and Raichur, none of the districts is found from south Karnataka, all districts are from north Karnataka. Except Gadag and Bijapur remaining three districts are from Hyderabad Karnataka region. It is clear that north Karnataka is general and Hyderabad Karnataka is under developed in economic growth as well as in human development as it was observed in most of the indicators in the present study.

In case of HDI inter-district disparity is high in north Karnataka than south Karnataka. Further among the divisions,

Gulbarga division has the highest inter-district disparity whereas; Mysuru division has the lowest inter-district disparity.

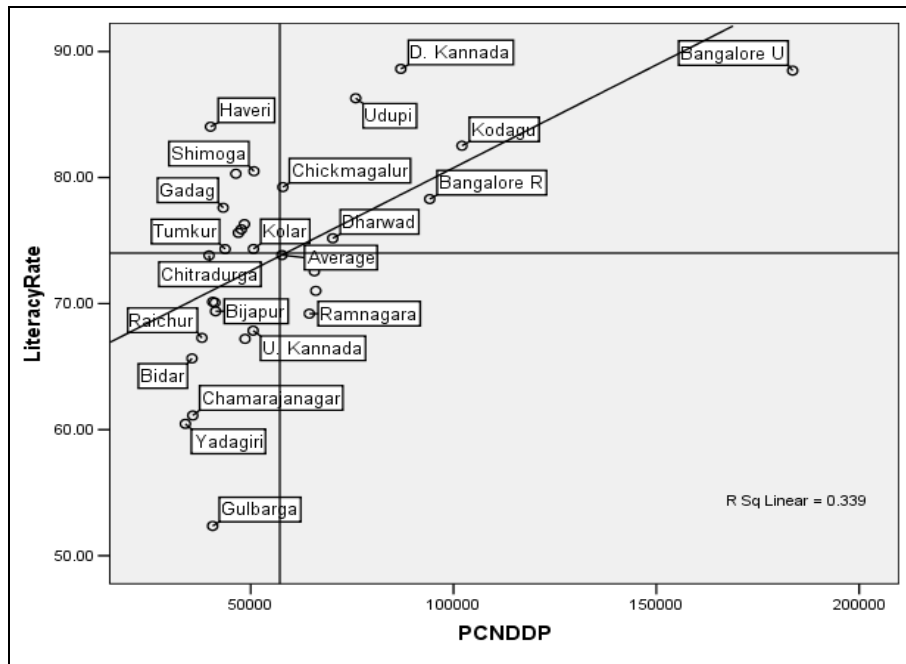
**Table 4:** Division-wise, District, which have the Highest and the Lowest HDI Values for the year 2014

| Division  | Highest     | Lowest     |
|-----------|-------------|------------|
| Belgaum   | Uttara K    | Bijapur    |
| Gulbarga  | Koppal      | Yadgiri    |
| Bengaluru | Bengaluru U | Davanagere |
| Mysore    | Udupi       | Mandya     |

Table 4 gives the details on division wise districts, which have the highest and the lowest HDI Values for the year 2014.

### C. Relation among and between Different Indicators

To see the relationship among different indicators/variables, scatter diagrams and correlation matrix have been prepared and presented as follows.

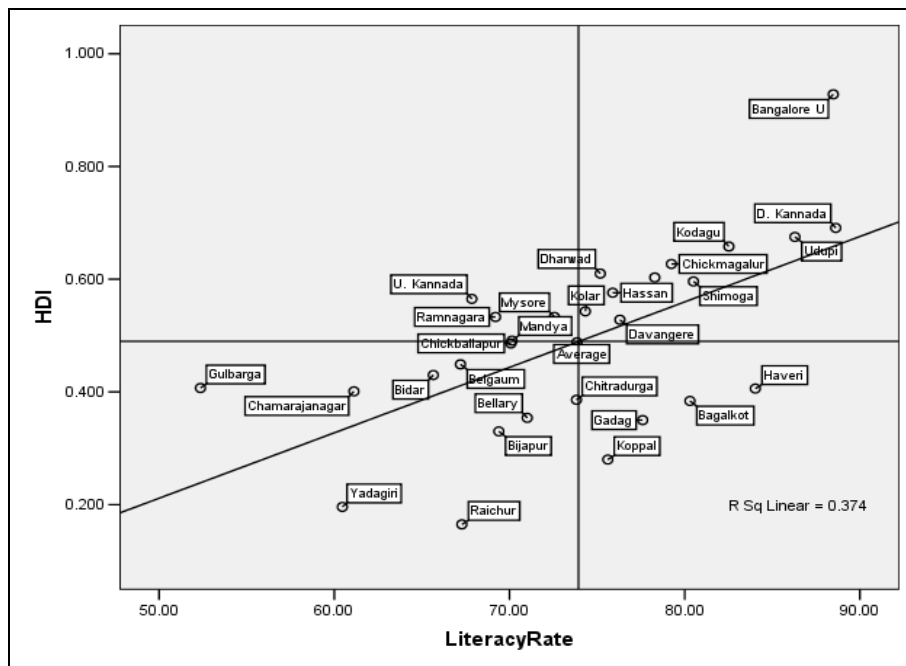


**Fig 2:** Scatter Diagram of Per Capita District Domestic Product and Literacy Rate among the Districts in Karnataka

In Figure 2 per capita district domestic product and literacy rates have been presented. It is found that the districts like Gulbarga, Bidar, Chamaranagara, Bijapur and Raichur have the lower literacy rate as well as lower per capita district domestic product.

On the other hand districts like Bengaluru Urban, Bengaluru

Rural, D. Kannada, Udupi and Dharwad districts have higher per capita district domestic product as well as higher literacy rate than the state average. The association of literacy rate and per capita income are found as positive. It means higher the per capita income, higher will be the literacy rate vis v.

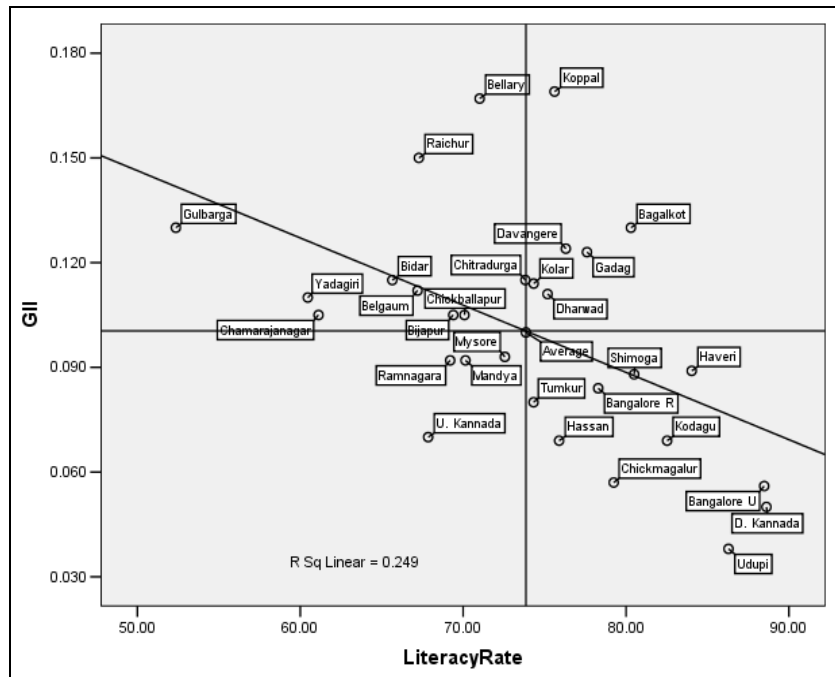


**Fig 3:** Scatter Diagram of Human Development Index and Literacy Rate among the Districts in Karnataka

Figure 3 reveals the association between Human Development Index and Literacy rate among the districts of Karnataka. It is observed that there is a positive association between literacy rate and HDI value.

Districts like Bengaluru (U), Dakshina Kannada, Udupi,

Shivamogga and Kodagu have shown good performance in HDI as well as in Literacy rate. Contrary to this Gulbarga, Raichur, Bellary, Bidar, Yadgiri and Chamaranagara have shown lower performance in both HDI value and literacy rate.



**Fig 4:** Scatter Diagram of Gender Inequality Index and Literacy Rate among the Districts in Karnataka

In Figure 4 Literacy rate and GII (Gender inequality index) have been presented for 30 districts of the state. The figure reveals that higher the literacy rate lower will be the Gender inequality.

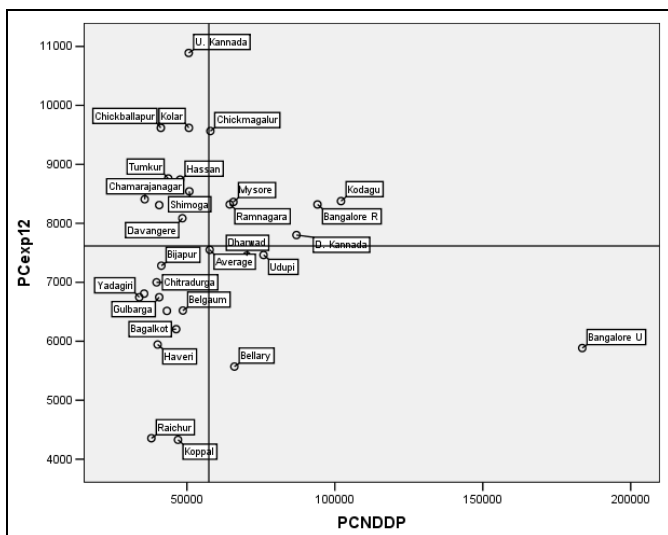
It is evident from the observation that districts like Gulbarga, Yadgiri, Bidar, Chamarajanagar and Raichur have lower literacy rate and higher gender inequality. As against to this, Udupi, Dakshina Kannada, Bengaluru (R), Hassan, Bengaluru (U) and Shivamogga have higher literacy rate and lower gender inequality.

**D. Correlation Matrix**

To see the association among and between different indicators have been considered, which have been presented in the Table 5.

**Table 5:** Indicator Considered

| Indicator | Description                 |
|-----------|-----------------------------|
| PCI       | Per capita income           |
| PCE       | Per Children expenditure    |
| LSI       | Living standard Index       |
| HI        | Health Index                |
| HDI       | Human Development Index     |
| GII       | Gender Inequality Index.    |
| ENR       | Enrolment                   |
| DOR       | Dropout rate                |
| RR        | Retention rate              |
| ACC       | Access index                |
| INR       | Infrastructure index of EDI |
| TCH       | Teacher index of EDI        |
| OCM       | Outcome index of EDI        |
| EDI       | Education development index |
| LRM       | Literacy rate male          |
| LRM       | Literacy rate female        |
| LRA       | Literacy rate all           |



**Fig 5:** Scatter Diagram of Per Capita District Domestic Product and Per Children Expenditure on Primary Education among the Districts in Karnataka

Correlation coefficient matrix has been presented in Table 6 and 7. In Table 6, including Bengaluru Urban district has been done and in Table 7 Bengaluru Urban district has been exclude. Bengaluru U district is an out layer on many indicators so an attempt has been made to see the difference.

**Table 6:** Correlation Matrix Including Bengaluru (U)

|     | PCI     | PCE     | LSI     | HI      | HDI     | GII     | ENR    | DOR     | RR     | ACC    | INR    | TCH   | OCM    | EDI   | LRM    | LRM    | LRA |
|-----|---------|---------|---------|---------|---------|---------|--------|---------|--------|--------|--------|-------|--------|-------|--------|--------|-----|
| PCI | 1       |         |         |         |         |         |        |         |        |        |        |       |        |       |        |        |     |
| PCE | -0.046  | 1       |         |         |         |         |        |         |        |        |        |       |        |       |        |        |     |
| LSI | .899**  | 0.247   | 1       |         |         |         |        |         |        |        |        |       |        |       |        |        |     |
| HI  | .467**  | .631**  | .569**  | 1       |         |         |        |         |        |        |        |       |        |       |        |        |     |
| HDI | .770**  | .463**  | .890**  | .838**  | 1       |         |        |         |        |        |        |       |        |       |        |        |     |
| GII | -.463** | -.577** | -.538** | -.919** | -.765** | 1       |        |         |        |        |        |       |        |       |        |        |     |
| ENR | 0.307   | -.501** | 0.161   | -0.211  | -0.008  | 0.224   | 1      |         |        |        |        |       |        |       |        |        |     |
| DOR | -.434*  | -0.303  | -.504** | -.512** | -.537** | .568**  | 0.292  | 1       |        |        |        |       |        |       |        |        |     |
| RR  | .469**  | 0.188   | .615**  | .452*   | .662**  | -.420*  | 0.046  | -.725** | 1      |        |        |       |        |       |        |        |     |
| ACC | -0.031  | .512**  | 0.056   | .372*   | 0.238   | -0.353  | -0.208 | -0.014  | -0.036 | 1      |        |       |        |       |        |        |     |
| INR | 0.172   | .652**  | 0.337   | .649**  | .531**  | -.648** | -0.289 | -.536** | .372*  | .415*  | 1      |       |        |       |        |        |     |
| TCH | 0.16    | 0.066   | 0.244   | 0.082   | 0.283   | -0.157  | -0.008 | -0.14   | 0.326  | -0.086 | 0.231  | 1     |        |       |        |        |     |
| OCM | 0.325   | .366*   | .490**  | .474**  | .542**  | -.494** | -.382* | -.879** | .742** | 0.019  | .488** | 0.165 | 1      |       |        |        |     |
| EDI | 0.232   | .668**  | .428*   | .658**  | .623**  | -.677** | -0.358 | -.625** | .521** | .552** | .904** | .409* | .648** | 1     |        |        |     |
| LRM | .539**  | -0.042  | .520**  | .411*   | .554**  | -.456*  | -0.236 | -.446*  | .362*  | 0.042  | 0.249  | 0.163 | .424*  | 0.333 | 1      |        |     |
| LRM | .598**  | 0.031   | .590**  | .486**  | .641**  | -.528** | -0.222 | -.556** | .463*  | 0.005  | 0.322  | 0.237 | .532** | .414* | .958** | 1      |     |
| LRA | .582**  | -0.001  | .570**  | .457*   | .611**  | -.499** | -0.227 | -.516** | .428*  | 0.019  | 0.294  | 0.206 | .493** | .383* | .985** | .993** | 1   |

\*Correlation is significant at the 0.01 level (2-tailed).

**Table 7:** Correlation Matrix Excluding Bengaluru (U)

|     | PCI    | PCE     | LSI     | HI      | HDI     | GII     | ENR     | DOR     | RR     | ACC    | INR    | TCH   | OCM    | EDI   | LRM    | LRM    | LRA |
|-----|--------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|-------|--------|-------|--------|--------|-----|
| PCI | 1      |         |         |         |         |         |         |         |        |        |        |       |        |       |        |        |     |
| PCE | 0.204  | 1       |         |         |         |         |         |         |        |        |        |       |        |       |        |        |     |
| LSI | .843** | .501**  | 1       |         |         |         |         |         |        |        |        |       |        |       |        |        |     |
| HI  | .416*  | .735**  | .525**  | 1       |         |         |         |         |        |        |        |       |        |       |        |        |     |
| HDI | .687** | .686**  | .846**  | .844**  | 1       |         |         |         |        |        |        |       |        |       |        |        |     |
| GII | -.440* | -.668** | -.500** | -.913** | -.764** | 1       |         |         |        |        |        |       |        |       |        |        |     |
| ENR | -0.325 | -.479** | -0.33   | -.481** | -.450*  | .477**  | 1       |         |        |        |        |       |        |       |        |        |     |
| DOR | -.413* | -.372*  | -.467*  | -.476** | -.495** | .539**  | .548**  | 1       |        |        |        |       |        |       |        |        |     |
| RR  | 0.341  | 0.282   | .545**  | .393*   | .601**  | -0.364  | -0.202  | -.704** | 1      |        |        |       |        |       |        |        |     |
| ACC | -0.123 | .535**  | 0.03    | .374*   | 0.248   | -0.352  | -0.292  | -0.001  | -0.058 | 1      |        |       |        |       |        |        |     |
| INR | 0.179  | .686**  | .370*   | .655**  | .576**  | -.652** | -.413*  | -.534** | 0.367  | .413*  | 1      |       |        |       |        |        |     |
| TCH | 0.193  | 0.079   | 0.27    | 0.069   | 0.298   | -0.148  | -0.049  | -0.131  | 0.328  | -0.089 | 0.227  | 1     |        |       |        |        |     |
| OCM | .554** | .372*   | .641**  | .496**  | .641**  | -.514** | -.464*  | -.908** | .793** | 0.019  | .490** | 0.166 | 1      |       |        |        |     |
| EDI | 0.29   | .700**  | .496**  | .666**  | .688**  | -.683** | -.492** | -.627** | .529** | .551** | .904** | .407* | .650** | 1     |        |        |     |
| LRM | .538** | 0.018   | .455*   | 0.358   | .493**  | -.412*  | -.517** | -.404*  | 0.291  | 0.029  | 0.236  | 0.153 | .444*  | 0.326 | 1      |        |     |
| LRM | .567** | 0.112   | .509**  | .430*   | .574**  | -.483** | -.555** | -.518** | .389*  | -0.014 | 0.314  | 0.232 | .571** | .416* | .955** | 1      |     |
| LRA | .561** | 0.073   | .492**  | .400*   | .544**  | -.453*  | -.545** | -.476** | 0.353  | 0.002  | 0.284  | 0.199 | .525** | .381* | .985** | .992** | 1   |

Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

From the correlation matrix it is found that per capita income is positively associated with literacy rate of male, female and all. Further it is positively associated with Human development index, Health index, Living standard index. It has negative association with Gender inequality index and dropout rate.

Per children expenditure on education has positive association with health index, human development index, education infrastructure index and Education development index. But per children expenditure on education has not shown any significant association in per capita income as well as literacy rate. Through this it is clear that public expenditure on education is necessary but not sufficient condition for the economic growth as well as improves the literacy rate. For the purpose awareness among the people has to be developed to improve the education level.

### 3. Conclusion

It is evident from the analysis that education is an important tool for the development. The districts which have higher literacy rate have good per capita income as well as good human development status. Further, the study revealed that improved literacy level is necessary for the overall development. It was also found from the studies that increasing public expenditure on education will enrich individuals first and through trickle-down effect translate into development. For this purpose, proper utilisation of funds, effective implementation of programmes and creating awareness among the people is very important.

### 4. References

1. Adi Muktha S. Public Expenditure on Social Sector in India, Indian Journal of regional science. 2004; 36(2):31-44.
2. Ahmad Md. Firdos, Bhakta Ravi Shankar. A Study of Education and Health Status of India, Indian Economic Association 89 Annual Conference. 2006, 317-322.
3. Ahmad Nighat. Social Sector Expenditure and Education. In Sen Raj Kumar (ed.): Social Sector Development in India. New Delhi: Deep & Deep Publications Pvt. Ltd. 2005, 214-231.
4. Benavot. Education and Economic Development in, Modern World. Oxford: Pergamon Press. 1985.
5. Gaur Achal Kumar. Economic Reforms and Inter-state Expenditure on Medical and public Health and Education, Critical Scenario Indian Economic Association 89 Annual Conference. 2006, 132-162.
6. GOI Various Issues of Economic Survey
7. GOI Various Issues of Indian Public Finance Statistics
8. Gopal Rani K, Kumari Sailaja B. Human Development, Per Capita Income and Poverty Linkages, Indian Economic Association 89 Annual Conference. 2006, 47-51.
9. Government of India. National Human Development Report, Planning Commission Government of India, New Delhi: Oxford University Press. 2001-2002.
10. Bhagavati J, Srinivasan T. India's Economic Reform. Ministry of Finance press Government of India. 1993.
11. Bhagavati, Jagadish. Education, class structure and Income Equality, World Development. 1973; 1(5):21-36.
12. Kaur K, Bawa RS. Expenditure on Social Sector Incidence of Poverty in India an Inter-state analysis, Indian Journal of Regional Sciences. 2000; 42(2):96-105.
13. Kaushik, Krishan K, Klein Kurt K, Arbenser Lawrence N. The Relationship Between Health Status and Health Care Expenditure in a Developing Hill Economy, An Econometric Approach', Indian Economic Association 89 Annual Conference. 2006, 32-46.
14. Deep. Deep Publications Pvt. Ltd. 145-162.
15. Sachs J, Warner A. Economic Reform and the Process of Global Integration, Brookings Papers on Economic Activity. 1995; 1:1-118.
16. Sachs J, Warner A. Sources of Slow Growth in African Economics. Journal of African Economics. 1997; 6(3):335-76.
17. Sasmal Joydeb. Poverty and Demand - Side Problems of Primary Education: A Theoretical Note, Indian Economic Association 89 Annual Conference. 2006, 223-228.
18. RBI Various Issues
19. Rao Govinda M, Choudhury Mita. Financing Human Development in Karnataka, Background Paper for Second Karnataka Human Development Report, National Institute of Public Finance and Policy, New Delhi, India. 2005.
20. Dadibhavi RV, Bagalkoti ST. Inter-state disparities in health status in India, Yojana. 1994-2006.
21. Dadibhavi RV, Bagalkoti ST. Reforms and Regional Inequalities in India: An Analysis, Indian Economic Journal. 2006, 21-38.