Trends in the Development of Educational Infrastructure

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Abstract: *The present paper made an attempt to study the trends in the development of educational infrastructure and identify those taluks, which are lagging behind. Mainly, the secondary data are used in the study regarding education. To know the educational development of each taluk of the district, the Composite Index Method has been used. To develop taluk-wise educational development index for the year 2000-01 and 2010-11, the fourteen indicators have been selected. The findings of the study prove that the taluks in Gadag district are marked with wide disparity in education development. Some taluks of the district have recorded remarkable progress in educational development. It is hoped that this would facilitate the task of planners in formulating development plans for the balanced development of the educational sector in Gadag district of Karnataka.*

Keywords: *Regional inequality, Composite Index, Economic development, Literacy and Enrolment.*

I. INTRODUCTION

Education has a crucial role in the growth and development of a country. Higher growth certainly enhances the level of education. Education has now become the corner stone of institutional frame work an several counts. There is an in extricable link between education and national development. The development of Indian education has its impact on modernization of the society, the economy and also on overall development. The contribution of education to Indian economic growth has been quite remarkable. The expansion and development of higher education has enabled Indian economy to be modernized by the setting up of many new industries and also made agricultural progress by the production of fertilizers. As result of the poor quality of education capital output ratio in India is very high and unfavorable and productivity is low.

Mahatma Gandhiji very clearly and correctly wrote that education is the strong base for building a strong India. He emphasized "basic education" to all so that people can live a happy life living only in villages, avoiding migration to cities. Moreover, he advised government to educate women who are the main pillars of society.

A benefit of education is both direct and as well as indirect impact on economy. Therefore education is a prerequisite for progress and development in economy. Further the level and spread of education has not only been an important pre condition for sustained economic growth and development, both in the developed and developing countries, but it has also played a critical facilitative role in the demographic, social and political transition of these societies. Creation, application and adoption of new technologies, lower-fertility, infant and child mortality rates, better nutritional, hygiene and health states of children, reproductive health and empowerment of women, social mobility and political freedom, all have visible linkages with educational attainment of people. Education is an important input for human capital formation. It is a vital part of social infrastructure that can bring about both individual and national development. Education is a systematic way of bringing about qualitative improvement in the standard of living of the people.

Educational progress can be assessed in terms of outcomes, such as literacy rates, educational attainments and enrolment and also of input indicators into the educational system, such as the number of institutions, teachers and school infrastructure.

II. OBJECTIVES AND METHODOLOGY

In view of this vital role of education in economic development of a region, an attempt has been made in this paper to study the infrastructure development in educational sector and identify those taluks, which are lagging behind. It is hoped that this would facilitate the task of planners in formulating development plans for the balanced development of the educational sector in Gadag district of karnataka.

Mainly, the secondary data are used in the present study regarding education. Sources of secondary data received from Selected Educational statistics 2000-01 and 2010-11, Census Report 2001and 2011, Govt. of India, Gadag District at a Glance- 2000-01 and 2010-11, High Power Committee Report, Karnataka Development Report 2005, Reports, Articles and Government Publications. To know the educational development of each taluk of the Gadag district of the Karnataka state in 2000-01 and 2010-11, the Composite Index Method has been used.

Construction of Composite Index

In constructing the composite indices of development, the Principal Component Analysis (PCA) has been used. The PCA was originally derived from the factor analysis. After computing the composite index of

educational development, the simple statistical variations tests i.e., computed values of Standard Deviation (S.D) and Mean ($\overline{X}$) are applied to these composite indices, then by using these two values all the taluks are classified into four groups i.e., highly developed, developed, backward and highly backward.

Selection of the Indicators

- For the period of 2000-01 and 2010-11, the following nine indicators have been selected to formulate taluk-wise educational development indices.
- Number of Primary Schools per 10,000 Population, Number of Primary Schools per 100 Sq.Kms of area , Number of Secondary Schools per 10,000 Population, Number of Secondary Schools per 100 Sq.Kms of area , Number of Pre-University Colleges per 10,000 Population , Number of Pre-University Colleges per 100 Sq.Kms of area, Gross Enrolment Ratio (Primary and Higher Primary), Pupil-Teacher Ratio in Schools, Literacy Rate (In Percentage)

III. RESULTS

The composite index value of educational development for different year and for different taluks is given in the table1.

The table-1 depicts that, Gadag stood first rank in educational development throughout the study period. Naragund taluk which was next only to Gadag. Shirahatti taluk, which was relatively well placed in 2000-01, seems to be sliding down in the 2010-11. Mundaragi taluk had improved its relative performance between 2000-01 and 2010-11.

Table1: Composite Index of Educational Development with Ranks

Sl .No	Year/Taluks	2000-01		2010-11	
		EDI	Rank	EDI	Rank
1	Gadag	9.80	1	13.00	1
2	Mundaragi	18.24	5	19.23	4
3	Naragund	11.51	2	13.31	2
4	Ron	12.54	3	15.22	3
5	Shirahatti	17.18	4	19.61	5
Mean		13.85		16.11	
S.D.		3.67		3.12	
C.V.		26.50		19.37	
Rank Correlation		0.900*			

Note: 1. Lower the value of EDI, higher is the level of educational development.
2. EDI: Educational Development Index.
3. *.Significant at 5 percent level of significance.

On the whole, the fluctuations in the relative position of different taluks in educational development seem to be very mild when compared to the health infrastructure development.

A cursory look at the table-1, reveals that there was progress in the educational infrastructural facilities at the aggregate level as shown by an increase in the district average. The co-efficient of variation shows the decreasing trend from 2000-01 to 2010-11 i.e., 26.50 percent to 19.37 percent. This is the positive sign of decrease in the disparities and increase of the development. The analysis of Rank correlation co-efficient shows that significantly high correlation i.e. 0.900** significant at 5 percent level of significance during the study period.

Table -2 shows that, classification of the taluks on the basis of composite index of educational development. It is clear from the table that, Gadag was the only highly developed taluk throughout the study period.

Table2: Classification of Taluks on the levels of Educational Development Index

Groups	Level of Development	2000-01		2010-11	
		Taluks	No. of Taluks	Taluks	No. of Taluks
I	Highly Developed	Gadag	1 (20.00)	Gadag	1(20.00)
II	Developed	Naragund Ron	2 (40.00)	Naragund Ron	2 (40.00)
III	Backward	Shirahatti	1(20.00)	Mundaragi	1(20.00)
IV	Highly Backward	Mundaragi	1(20.00)	Shirahatti	1(20.00)

Note: Figures in brackets denotes percentages.
Source: Computed from the values given in Table – 1.

In 2000-01, two taluks viz., Naragund and Ron were developed group for the entire study period. Number of backward taluks was one for the years 2000-01 and 2010-11 respectively. That means proportion of educationally backward taluks was very high for the period 2010-11. In fact pupil-teacher ratio and number of primary and secondary schools have increased but was still below the target and no taluk developed equivalent

to Gadag. In 2000-01 Shirahatti taluk was figured in backward group, but which was fall in highly backward category in 2010-11. Mundargi taluk improved its position and shift to backward group from highly backward group.

Finally, Gadag has emerged in the most advanced taluk in the educational development, while Mundaragi and Shirahatti taluks remained the most backward. It is clear that proportions of educationally developed taluks are very high during the study period. The overall results clearly indicate that there is no uniformity in the development of educational infrastructure among all the taluks of Gadag district.

Table-3 shows that, trends of educational development of different taluks of Gadag district in 2000-01 and 2010-11. It is clear from the table that Gadag has remained as highly developed taluk, Naragund and Ron taluks have maintained their position as developed in the health sector for the entire study period. Shirahatti taluk has backward in 2000-01, but it became highly backward group during 2010-11. Mundaragi taluk has shown improvement in health infrastructure in 2010-11.

Table3: Trends of Educational Development in Gadag District

Sl .No	Taluks/Year	Level of Development (Period wise)	
		2000-01	2010-11
1	Gadag	Highly Developed	Highly Developed
2	Mundaragi	Highly Backward	Backward
3	Naragund	Developed	Developed
4	Ron	Developed	Developed
5	Shirahatti	Backward	Highly Backward

Source: Computed from the values given in Table – 4.16

It is clear from the table-3 that, the taluks which were highly developed and developed have remained in same position throughout the study period in spite of significant development efforts made by the state.

IV. CONCLUSION AND SUGGESTIONS

Here a composite index of educational development is constructed for five taluks of Gadag district. The findings of the analysis support the general perception about the taluks. The taluks in Gadag district are marked with wide disparity in educational development. Some taluks are backward and while taluks like Gadag and Ron have recorded remarkable educational progress.

Therefore, the steps should be taken by the respective Governments to reduce educational inequality among the taluks to their lowest levels. Further, we need to restructure the overall policies and programmes to achieve a new vision based on faster, broad based and inclusive growth.

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