



## Inequalities in the status of primary education in Assam, India

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### Abstract

Educational inequalities around the world have received a lot of attention at the research level with different lines of research emphasizing the different factors. The Education For All (EFA) is a worldwide novel mission of UNESCO which is centered around six goals. The EFA Development Index (EDI), a composite of relevant indicators, provides one way of doing so at least for the four most easily quantifiable EFA goals. The present study is an attempt to examine three components of Education For All Development Index, namely Universal Primary Education (UPE), Quality of Education and Gender Parity and Equality and finally to assess the status of Primary Education in the districts of Assam. The EDI of the different districts are far below than the countries average which may be related to literacy status and per capita gross domestic product of the districts. The situation demands a systematic approach for attaining the goal of Universal Primary Education in the socio-economically backward state like Assam.

**Keywords:** education for all, universal primary education, net enrolment ratio, gender parity index, survival rate.

### 1. Introduction

Virtually every World Development Report published annually by the World Bank has recognized, in one form or another, the importance of primary schooling as an input to the social and economic progress of poor countries. In India primary education has historically been neglected by the state, with education expenditure being concentrated on the tertiary sector ( Dreze & Sen, 1995). India made a constitutional commitment to provide free and compulsory education to all children up to the age of 14 nearly 60 years ago. The goal, which was expected to be achieved by 1960, has remained elusive even now. Assam, the most populous state in the North East India presents wide disparity in the educational development. The primary school education scenario in Assam continues to be in the doldrums, beset as it is with a number of problems from declining enrolment to infrastructure bottlenecks to poor quality of teaching. As per the Annual Status of Education Report

(ASER, 2010) findings, the figure of out of school children in the age group of 6-14, which 4.4% in 2006, increased to 6.9% in 2007. In such a situation, UNESCO's mission 'Education For All' by 2015 is a distant mere dream in Assam. Against this backdrop an analysis has been made to examine the inequalities in educational development particularly primary education among the districts of Assam.

### 2. Objectives of the study

The major objectives of the study are:

- to find out the district wise variations of Education For All components namely Net Enrolment Ratio, Gender Equality Index and Apparent Survival Rate
- to find out the inequalities in the status of Primary Education of Assam in terms of Education For All Development Index(EDI)
- to find out the relationship of Education For All Development Index with Literacy and Per Capita Gross Domestic Product.

### 3. Methodology

The study is based on secondary sources. Secondary sources pertain to various reports and data from District Primary Education Programme (DPEP), Educational Management and Information System (EMIS) of Sarva Siksha Abhiyan (SSA), Census of India, Village Directory, Statistical Handbooks of Assam besides relevant books and journals. The data have been analyzed with the help of an Education For All Development Index (EDI) model developed by UNESCO.

### 4. Results and discussion

The analysis deals with the development of educational scenario of primary schools of Assam in respect of enrolment. In order to get access to universal primary education for all children in the age group of 6- 14, several initiatives across the globe have been undertaken from the last part of twentieth century. To embark on this journey, UNO developed the Millennium Development Goal (MDG) in the year 2000. In line with this, the Government of India also launched its flagship programme Sarva Shiksha Abhiyan (SSA) with a goal of universalisation of elementary education in 2002. In Assam too, Sarva Siksha Abhiyan started functioning from 2002. Under SSA, several novel initiatives like development of school buildings, pure drinking water, proper sanitary system, mid-day meal etc. were undertaken. As a consequence, enrolments in primary education have increased substantially in the following years. In Assam the enrolment trend of the Govt. and Govt. recognized primary schools during the period of 2004 to 2010 shows positive growth trend during the periods 2004-2005, 2006-2007 and 2009-2010 and negative growth trend in the periods 2005-2006 and 2007-2009. The total enrolment of primary school was 32,32,547 in 2004, which has increased to 35,10,665 in 2005. But in 2006, it has again decreased from 35, 10,665 to 31, 41,277. In 2007 it again increased to 32,45,754. But in 2008 the enrolment of primary school again decreased to 23,67,302. The rate of decrease is more in between 2007 and 2008 than the previous years. In 2009 the enrolment has again come down to 22,98,928. During the period of 2009-2010 the enrolment has increased to 26,55,582. Again, the total enrolment 31,41,277 of 2006 has increased to 32,45,754 in the year 2007. But in 2008 it has again decreased to a number of 23,67,302. Again, in 2009 the total enrolment 2367302 of 2008 has decreased to 22,98,928 in 2009. But in 2010, the enrolment has again increased to 26, 55,582 from 22, 98,928 of 2009. In sum, the enrolment trend from the year 2004 to 2010, it

is found that the enrolment of Class I-IV in the Govt. and Govt. recognized schools of Assam has decreased from 32,32,547 to 26,55,582. But during this period the enrolment in the private schools has increased to a many folds (DISE 2006-2010).

In the district level enrolment analysis it is observed that almost in all the districts the enrolment decreases during the period of 2004-2009 in govt. schools with a few exceptions. But the rate of decrease is not uniform in all districts. The rate of decrease in enrolment is low in the districts of Dhubri, Nalbari, Nagaon, Karimganj and Cachar. But the rate of decrease is more in the districts of Jorhat, sonitpur, Golaghat, Dibrugarh and Sibsagar. The reason may be the proliferation of private schools; because nowadays most of the parents and the guardians have a notion that their children would get better teaching, guidance and other facilities in the private schools rather than the schools run by the Government.

The study of inequalities is an important aspect of any geographical theme as both physical and cultural attributes vary widely over the time and space. The situation is true to the status of primary education across the globe which has been examined by United Nations Educational, Scientific and Cultural Organization (UNESCO) on the basis of Education For All Development Index (EDI) for primary education considering Class I to IV. In the present study, the status of primary education in Assam has been analyzed by calculating the Education For All Development Index for all the districts during 2007-08. For this purpose, data from Census of India, 2001 and Education Management and Information System (EMIS), 2007-08, Sarva Siksha Abhiyan, Assam have been used. To carry out this exercise, the Education For All Development goals have been discussed at first followed by calculation for the component of Education For All Development Index (EDI) and ultimately finding out the Education For All Development Index for the districts of Assam.

#### 4.1 Education for all development index

The Education For All (EFA) is a worldwide novel mission of UNESCO aiming to meet the learning needs of all children, youth and adults by 2015, which is centered around six goals as mentioned below:

1. Expanding early childhood care, especially for the most vulnerable and disadvantaged children.
2. Providing free and compulsory primary education for all.

3. Ensuring the learning and life-skills for young people and adults.
4. Achieving at least 50 per cent improvement in levels of adult literacy by 2015, especially for women.
5. Achieving gender parity by 2005, gender equality by 2015.
6. Improving the quality of education.

UNESCO has developed the Education For All Development Index (EDI). Out of the six EFA goals, the EDI measures four most easily quantifiable goals selected on the basis of data availability. Out of these four indicators, the Adult Literacy Rate which is used as a proxy to measure progress towards goal 4 has to be avoided because of its limitations. Each of these four goals is evaluated using a specific indicator. Each component of these indicators is assigned an equal weightage in the overall index. Therefore, the EDI value for a given country is thus the arithmetic mean of the four indicators. Since they are all expressed as percentages, the EDI value can vary from 0 to 100% or, when expressed as a ratio, from 0 to 1. The higher the EDI value, the closer is the country to achieve Education for All (EFA).

#### 4.2 Components of education for all development index

In this exercise, instead of four parameters three parameters are taken into account ignoring adult literacy due to paucity of data. They are Net Enrolment Ratio (NER), Gender Specific Indicators (GEI), and Survival Rate at Class IV. The results towards calculating the Education for All Development Index according to the components have been discussed below.

#### 4.3 Net enrolment ratio

Net Enrolment Ratio is the ratio of the number of children of official school age who are enrolled in primary school to the total population of children of official school age. This reflects the percentage of primary school age children who are enrolled in primary school and each value varies from 0 to 100% or in ratio of 0 to 1.

In order to calculate the Net Enrolment Ratio (NER), population from age-group 5-9 years have been taken from Population Census 2001 in this study. Although the relevant age-group of primary school from Class I to IV matches with the age-group of 6-10 years but non availability of data compels the investigator to confine to the age-group of 5-9 years only. Data on

enrolment have been collected from the Education Management and Information System (EMIS) of SSA, Assam. As the enrolment data refers to 2007-08, the village level population data have to be estimated for 2007-08 by employing the decadal population growth rate. In order to maintain a balance between the selected age-group and the standard of primary education the enrolment of Class I to Class IV have been considered. The NER thus found is expressed in ratio.

#### 4.4 District wise inequalities of net enrolment ratio

The central and the respective state Governments have initiated several programmes to increase the enrolment of primary education. Yet, the 100% enrolment of school aged children is still a distant cry. It is observed that there are wide variations of Net Enrollment Rate (NER) among the districts of Assam. Among all the Districts of Assam, Nalbari shows the Highest NER of 0.78, while Goalpara shows the lowest, being 0.57 (Table- 1). The overall Net Enrolment Ratio for Assam is 0.66.

#### 4.5 Gender parity and equality

Equal access to education is the foundation for all other developmental goals. Recent years have witnessed some positive developments with respect to girls' enrolment but despite these positive trends, gender disparity does not seem to be declined significantly over the years. Measuring and monitoring the broader aspects of gender parity and equality in education is difficult (EFA Global Monitoring Report, 2007). Gender, an important EDI component is measured by a composite index, the gender specific EFA index (GEI). Ideally, the GEI should reflect the whole Gender related EFA goal, which calls for eliminating gender disparity in primary and secondary education by 2005 and achieving gender equality in education by 2015. This can be expected with a focus on ensuring girls' full and equal access to this developmental process and consequent achievement of good quality primary education. There are thus two sub goals, namely gender parity (achieving equal participation of girls and boys in primary education) and gender equality (ensuring the educational equality among boys and girls alike).

Table 1: Education For All Development Index (EDI) for Primary Education in the districts of Assam, 2007-08

Sl No	Districts	Class I Total Enrolment	Class II Total Enrolment	Class III Total Enrolment	Class IV Total Enrolment	Class I-IV Total Enrolment	Estimated population in 2008 (5-9 Yrs)	NER	Enrolment GPI	Literacy GPI	GEI	ASR at Class IV	EDI	Lit. Rate	Per capita GDP (in Rs.)
1	Barpeta	42325	33768	33194	33939	143226	235890	0.60	0.96	0.62	0.79	0.80	0.73	56.00	16207
2	Bongaigaon	26355	21343	20251	19867	87816	141876	0.62	0.92	0.66	0.79	0.75	0.72	60.95	30126
3	Cachar	41965	40973	39830	37550	160318	219797	0.73	0.96	0.7	0.83	0.89	0.82	67.82	21447
4	Darrang	38902	31462	29370	29768	129502	198103	0.65	0.96	0.65	0.81	0.77	0.74	54.31	23071
5	Dhemaji	17298	16475	15257	14368	63398	100976	0.63	0.95	0.64	0.80	0.83	0.75	64.48	16618
6	Dhubri	62813	46548	39916	36909	186186	279411	0.67	0.97	0.61	0.79	0.59	0.68	48.17	13103
7	Dibrugarh	31596	27879	26902	26357	112734	158797	0.71	0.96	0.72	0.84	0.83	0.80	68.96	39623
8	Goalpara	17464	14271	13066	12114	56915	100373	0.57	0.92	0.62	0.77	0.69	0.68	58.03	18210
9	Golaghat	29448	23231	21495	21237	95411	134451	0.71	0.97	0.72	0.84	0.72	0.76	69.38	24107
10	Hailakandi	18475	18263	18189	16612	71539	106005	0.67	0.92	0.67	0.79	0.90	0.79	59.64	21285
11	Jorhat	23578	23709	23254	21981	92522	132179	0.70	0.97	0.78	0.87	0.93	0.84	76.34	31352
12	Kamrup	47030	47061	46959	43353	184403	260973	0.70	0.97	0.76	0.87	0.93	0.83	67.73	25016
13	Karbi Anglong	40933	39003	37450	33568	150954	197330	0.76	0.96	0.58	0.77	0.82	0.79	57.70	25745
14	Karimganj	33760	26166	23391	21034	104351	153720	0.68	0.95	0.69	0.82	0.62	0.71	66.24	22115
15	Kokrajhar	34783	31740	30663	27100	124286	193109	0.64	0.96	0.62	0.79	0.78	0.74	52.29	23032
16	Lakhimpur	21819	17209	16243	16291	71562	101855	0.70	0.95	0.71	0.83	0.75	0.76	68.56	19288
17	Morigaon	23035	21787	21317	18182	84321	137938	0.61	0.93	0.67	0.80	0.79	0.73	58.53	21088
18	Nagaon	51800	48150	47048	41308	188806	308650	0.61	0.96	0.7	0.83	0.80	0.75	61.73	14874
19	Nalbari	48093	47725	47357	40250	183425	232541	0.78	0.97	0.7	0.84	0.83	0.82	72.66	23602
20	N.C Hills	13240	12974	12148	10235	48597	74369	0.65	0.97	0.62	0.80	0.77	0.74	67.62	39924
21	Sibsagar	27973	26657	25241	25083	104954	150717	0.70	0.97	0.7	0.83	0.90	0.81	74.47	45263
22	Sonitpur	34681	33020	31825	29710	129236	204684	0.63	0.97	0.62	0.79	0.86	0.76	59.07	18730
23	Tinsukia	22672	22872	22525	19097	87166	142752	0.61	0.94	0.61	0.78	0.84	0.74	60.95	37006
	Assam	750038	672286	642391	596913	2661628	3966496	0.66	0.95	0.66	0.81	0.79	0.76	63.25	24056

Data Source : Census, 2001 and EMIS, 2007-08, SSA, Assam; Statistical Hand Book of Assam, 2009  
 ASR- Apparent Survival Rate, NER- Net Enrolment Rate, EDI- Education For All, Development Index, GPI- Gender Parity Index, GEI- Gender Specific Index, GDDP- Gross District Domestic Product

#### 4.6 Gender parity index

The Gender Parity Index (GPI), when expressed as the ratio of females to males in enrolment ratio or the literacy rate, can exceed unity when more girls/women are enrolled or literate than boys/ men. For the purposes of the index, the F/M formula is inverted to M/F (transformed) in cases where the GPI is higher than 1. To find out GEI, the primary GPI and transformed GPI are calculated by using the aforesaid model. In the present study, the GPI for enrolment in Class I-IV has been calculated using EMIS data 2007-08, SSA, Assam. An observation in the enrolment scenario of Assam shows that the girls' enrolments are decreasing in every subsequent classes. The situation seems to be encouraging in all the districts of Assam in case of the gender parity index in enrolment (Table- 1).

#### 4.7 District wise inequalities in gender parity in enrolment and literacy

The success of Universal Primary Education depends upon the 100 per cent girls' enrolment in the primary education. The share of girls' enrolment is much lower than that of boys. But now, the situation is improving after the introduction of several programmes by Sarva Siksha Abhiyan to encourage the girls' enrolment. Literacy rate is the basic indicator of a country's educational development. In Assam, a discrepancy was prominent in literacy rates between men and women with 64.28 per cent and 56.03 per cent respectively in 2001. It has increased to an overall literacy per cent of 73.18 in 2011. But among the literates only 67.27 females are literate in the state. Female literacy is considered to be a more sensitive index of social development compared to overall literacy. Gender disparity in literacy is a deep-rooted social problem of developing countries. Widespread gender gap in literacy hampers the development in all fronts of the social developments. In this exercise, the Gender Parity Index in literacy of the different districts has been worked out from the Population Census, 2001. Gender Parity in literacy shows wide variations among the districts of Assam (Table 1). The highest

GPI in literacy is found in the district of Jorhat (0.78) followed by Kamrup (0.76). On the contrary, Dhubri and Tinsukia show the lowest GPI in literacy (0.61). Likewise, Gender Parity in Enrolment is also found in wide variations among the districts of Assam. In all the districts of Assam, Gender Parity in Enrolment is found to be above 0.90. The Gender Equality Index (GEI) based on Enrolment GPI and literacy GPI has been worked out for the districts as  $GEI = 1/2 (\text{enrolment GPI}) + 1/2 (\text{literacy GPI})$ . As seen in the Table 1, the highest Gender Specific Index (GEI) is found in the districts of Jorhat (0.87) and Kamrup (0.87). While the lowest GEI is found in both the districts of Goalpara and Karbi Anglong (0.77). Out of 23 districts only two districts namely Kamrup and Jorhat claimed GEI value above 0.85 and occupied high level of Gender Equality Index.

#### 4.8 Survival rate

Among the feasible indicators available for a large number of countries, the survival rate to Class 5 was selected as being the best available indicator for the quality of education component of the Education For All Development Index (EFA Global Monitoring Report, 2010). Although the Enrolment is increasing over the years, the retention or survival scenario of the primary education is not so satisfactory which makes policy makers puzzled. The Class specific Enrolment over a period of five years are considered in estimating the retention or survival rate at the primary level and it gives a fairly good information about the retaining capacity of the education system. In this study, Apparent Survival Rate (ASR) has been used. The Apparent Survival Rate presents the share of enrolment in Class-II and subsequent Classes in relation to the enrolment in Class-I in a year. The rate is considered as crude since it is based upon the enrolment data of one year only. It, however, reveals interesting and useful information about the retaining capacity of the system (DISE, 2007).

#### 4.9 District wise inequalities in apparent survival rate

In the context of the present study, an

inequality in Apparent Survival Rate is seen with regard to Class and gender among the districts. It reveals that the enrolment decreases with the increase of Class level. Table-1 shows the Apparent Survival Rate from Class-I to Class IV from class-I to class IV at in different districts of Assam. The highest Apparent Survival Rate is found in the districts of Jorhat (0.93) and Kamrup (0.93) followed by Hailakandi (0.90) and Sibsagar (0.90). On the contrary the lowest Apparent Survival Rate 0.59 is found in Dhubri district. It is observed that districts having the high literacy level have acquired the high survival rate; while the districts having poor literacy level are placed in the low survival rate category.

### 5. Inequalities in EDI among the districts

In the above discussion of the components of Education For All Development Index it is found that there have been wide variations of the components among the districts of Assam. By summing up the three components of EDI namely Net Enrolment Rate, Gender Specific Index and Survival Rate in terms of ratio the EDI for all the districts of Assam have been found out as follows:

$$EDI = \frac{1}{3}(NER) + \frac{1}{3}(GEI) + \frac{1}{3}(\text{Survival rate to Class IV})$$

It is revealed (table-1) that the Education For All Development Index is found to be the highest in Jorhat district with a ratio of 0.84 followed by Kamrup (0.83). On the contrary the lowest EDI ratio is found in the district of Dhubri (0.68). The overall EDI for Assam is 0.76. Table 1 shows that the districts having the high EDI value are acquiring the high ratio of NER, GEI and ASR. The districts having the high EDI are comparatively developed than the other districts in respect of socio- economic conditions.

### 6. Relationship between EDI and literacy and EDI and gross domestic product

A correlation analysis between Literacy level and Education For All Development Index is found to be  $r = 0.693544$  indicating positive relation and signifies that the literacy has a strong role in the overall development of educational scenario of a state. The districts having the high literacy rate acquired the high EDI also. Education and literacy are directly linked to economic development. In general the higher the level of economic development, the greater are both the quality and quantity of education (Gautam, 2010). Although Gross National Product (GNP) is an appropriate measure of economic development, Gross Domestic Product (GDP) is the most available published official data for the country and so the same is used widely in measuring the economic development. To find out the correlation between quality of education and economic development at district level, Education For All Development Index (EDI) and Per Capita Gross District Domestic Product have been considered. The correlation between Education For All Development Index and Per Capita Gross District Domestic Product is found at  $r = 0.381662$  indicating a positive relationship.

### 7. Conclusion

While comparing the present findings at the national context, it is seen that Assam is placed a little behind the country's EDI which stands at 0.77 (in 2007) as calculated by UNESCO (EFA Global Monitoring Report, 2010). As stated in the Report, India lags far behind in the global context occupying 105th rank in EDI among 125 countries in the world which falls under the category of Low EDI country. However, as against four parameters adopted in the UNESCO's calculation of EDI, the present exercise is done considering only three of the selected parameters which stand as a limitation of the study.

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