

Educational Development Index

Introduction

Internationally, Human Development Index (HDI) and Education for All (EFA) Development Index (EFA-DI) have been used for cross-country comparisons in overall human development and universalising elementary education respectively. Both HDI and EFA-DI measures outcomes. The HDI measures development by combining indicators of life expectancy, educational attainment and income. It uses adult literacy rates and combined gross enrolment ratio for primary, secondary and tertiary schooling as indicators of educational development and gives adult literacy more significance in computing the index. On the other hand, EFA development index uses one indicator as a proxy measure for each of the four EDI components and each component is assigned equal weight in the overall index. The indicators used are: (i) total primary net enrolment ratio; (ii) adult literacy rate; (iii) survival rate to Grade V; and (iv) average of three gender parity index for primary education, secondary education and adult literacy, with each being weighted equally.

The provision and use of elementary education services in India has been improving quite fast during the last decade. However, the development has not been uniform across the states and districts in the country. The elementary education related interventions have been creating and improving access and infrastructure, investing in more teachers and their quality and several processes, aimed at improving educational outcomes

related to not only enrolment and retention, but improving the learning levels. From the point of view of an education system that is transforming itself, it is important to look at not only the outcome indicators, but at the input and process indicators too. The purpose of an index that summarizes various aspects related to input, process and outcome indicators is to identify geographic areas that lag behind in overall education development. In India, DISE provides information on various school based inputs and processes as well some indicators related to outcomes.

“Based on the DISE data, an effort has also been made by NUEPA and MHRD, to compute an Educational Development Index, separately for Primary and Upper Primary levels of education and also a composite index for the entire elementary education”

Based on the DISE data, an effort has also been made by the National University of Educational Planning and Administration (NUEPA) and the Government of India (MHRD, Department of School Education and Literacy) to compute an Educational Development Index (EDI), separately for Primary and Upper Primary levels of education and also a composite index for the entire Elementary education (*see Elementary Education in India:*

Progress Towards UEE: DISE Flash Statistics: 2006-07; NUEPA and GOI, 2008) for which the Government of India constituted a Working Group on EDI in 2005-06 of which NUEPA was also a member¹. It identified indicators and developed computation methodology. The basic purpose of computing an EDI is to know comparative status of a state vis-à-vis other states with regard to different aspects of universalisation.

Indicators Used

The Working Group on EDI identified a number of indicators falling under different aspects of

¹ Contributions received from the members of the Working Group on EDI constituted by the MHRD, in particular Dr. Deepa Sankar, World Bank, Delhi, and Mr. Dhir Jhingran, MHRD, New Delhi in developing methodology and identification of indicators are gratefully acknowledged. Inputs received from Dr. Deepa Sankar on this section is also thankfully acknowledged.

universalisation of education, covering input, process and outcome indicators. This set of indicators take note of all aspects and is expected to present the true picture of universalisation. The variables used to compute EDI in the present exercise are presented in Table E1. It may also be noted that EDI in India is still evolving and each indicator used have a specific purpose. However, they are not fixed and hence a review may be undertaken periodically. If need be new indicators can be added to the existing set of indicators or a few of them may be dropped out. As many as 23 indicators have been used in computing EDI which are further re-grouped into the following four sub-groups:

- Access,
- Infrastructure,
- Teachers, and
- Outcome indicators.

DISE provides information in case of most of these indicators, that have been used to compute the EDI at Primary and Upper Primary levels of education. Under the access indicators, two indicators namely, percentage of un-served habitations and availability of schools per thousand child population (6-11/11-14 year) have been used. The projected child population provided by the Office of the Registrar General of India has been used while the percentage of un-served habitations has been obtained from the All-India Education Survey: 2002-03. It may be noted that the information on un-served habitations is available for year 2002-03, though a number of Primary and Upper Primary schools have been opened across the country since then. Thus the same may not present the true picture with regard to availability of schooling facility in 2006-07. However, in view of the absence of other independent source of data on coverage of habitations, except state reports, EDI continues to use 2002-03 data, which will be updated as and when independent data becomes available. In view of these limitations, ratio of Primary to Upper Primary schools/sections has also been used as an indicator of access at Upper Primary level of education. While computing the ratio, both Primary and Upper Primary schools as well as Primary and Upper Primary sections attached to Secondary and Higher Secondary schools have been considered.

“Pass percentage and percentage of appeared children passing with 60 percent and above marks in terminal Grades IV/V and VII/VIII, considered as proxy indicators of learners’ attainment, are also used in outcome indicators in the EDI”

The Working Group on EDI identified five indicators under infrastructure set of indicators. Average student-classroom ratio, percentage of schools with student-classroom 60 and above, percentage of schools without drinking water facility in school and percentage of schools with common and girls’ toilet are such indicators.

The third set of indicators, six in numbers, are teacher related indicators. Pupil-teacher ratio, percentage of female teachers, schools with PTR 60 and above, percentage of single-teacher schools, percentage of schools with less than 3 teachers and percentage of teachers without professional qualifications are such indicators under this category.

The last set of indicators is related to outcome indicators amongst which gross enrolment ratio (overall, SC and ST) is the most important one. While computing GER, projected population provided by the Office of the Registrar General of India have been used to workout 6-11 and 11-14 year population. It may be noted that GER for SC and ST population has been obtained from the Selected Education Statistics of the Ministry of HRD. Gender Parity Index (enrolment) is another important indicator which shows the extent of participation of girls compared to their counterpart boys in educational programmes. One of the other important outcome indicators is ratio of exit class over Class I enrolment which has been used only at Primary level. A few states reported this to be above 100 percent which is treated as missing values in EDI computation. Average dropout and repetition rates are other important outcome indicators which have been computed by using DISE data based on common schools in 2005-06 and 2006-07. In case of states having negative dropout rate are considered as missing values. Pass percentage and percentage of appeared children passing with 60 percent and above marks in terminal Grades IV/V and VII/VIII, considered as proxy indicators of learners’ attainment, are also used in outcome indicators in the EDI. Needless to mention that while analysing EDI, data limitations presented above should be kept in mind.

Table E1
Indicators Used in Computing EDI

Component	Indicator
ACCESS	Percentage of Habitations not Served
	Number of Schools per 1000 Child Population
	Ratio of Primary to Upper Primary Schools/Sections (only at Upper Primary stage)
INFRASTRUCTURE	Average Student-Classroom Ratio
	Schools with SCR ≥ 60
	Percentage of Schools without Drinking Water Facility
	Percentage of Schools with Common Toilets
	Percentage of Schools with Girls' Toilets
TEACHERS	Percentage of Female Teachers
	Pupil-Teacher Ratio
	Percentage of Schools with Pupil-Teacher Ratio ≥ 60
	Percentage of Single-Teacher Schools where the Number of Students ≥ 15
	Percentage of Schools ≤ 3 Teachers
OUTCOME	Percentage of Teachers without Professional Qualifications
	Overall Gross Enrolment Ratio
	Gross Enrolment Ratio - Scheduled Castes
	Gross Enrolment Ratio - Scheduled Tribes
	Gender Parity Index in Enrolment
	Repetition Rate
	Dropout Rate
	Ratio of Exit Class over Class I Enrolment (only at Primary stage)
	Percentage of Appeared Children Passed
	Percentage of Appeared Children Passed with ≥ 60 percent and more Marks

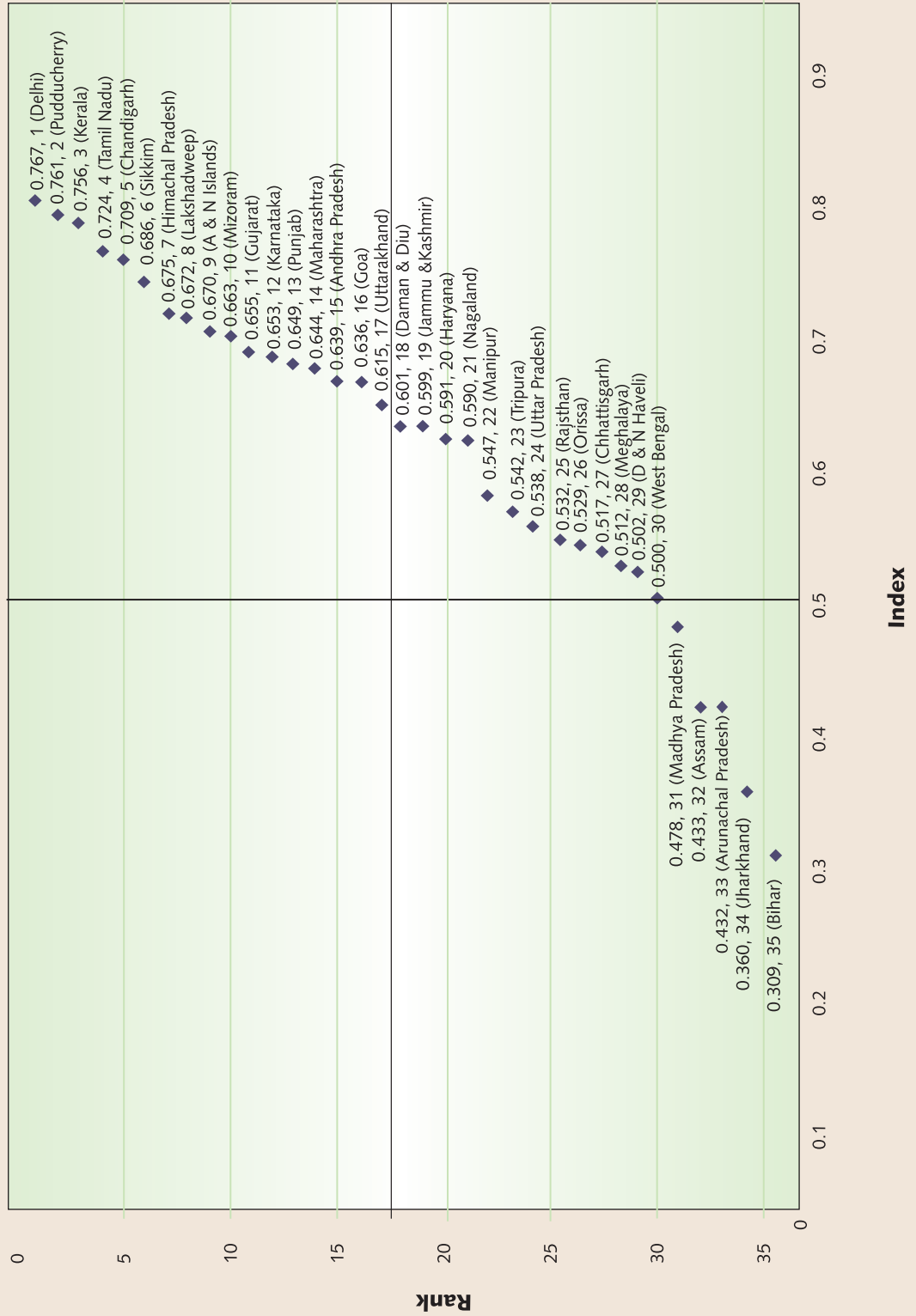
Notes:

- For methodological details, please refer:
 - Orienting Outlays Toward Needs: An Evidence-Based, Equity-Focused Approach for Sarva Shiksha Abhiyan* by Dhir Jhingran and Deepa Sankar, Unpublished, 2006.
 - Educational Development Index: A Suggestive Framework for Computation* by Arun C. Mehta and S. A. Siddiqui, NUEPA, New Delhi, Unpublished, 2007.
- Indicators used for constructing EDI were pre-determined by a Working Group on EDI constituted by the MHRD, Government of India.
- Indicators were normalized before the Principal Component Analysis was applied to decide the factor loadings and weights.
- Separate dimensional indices were constructed first before finalising the EDI; and
- Data provided in Selected Educational Statistics has been used in case of GER of SC and ST population and wherever necessary projected child population provided by the Registrar General of India has been used.

Methodology

A cursory look at the set of 23 indicators (Table E1) reveals that they have either direct or inverse relationship. Some of these indicators are in ratio form and others in percentage form. In view of this, each indicator considered in EDI computation is first required to be normalised. Normalised values range between 0 and 1

Figure 5.1
 EDI (Index and Ranks) at Primary Level : All Managements, 2006-07



and it indicates the relative position of states with reference to a selected indicator. Thus in case of each indicator, in view of its nature, the best value and the worst value are identified which are then used to transform by using the following formula:

$$NV_{ij} = 1 - \left[\frac{\{\text{Best } X_i - \text{Observed } X_{ij}\}}{\{\text{Best } X_i - \text{Worst } X_i\}} \right]$$

where NV_{ij} represents normalized index of i^{th} indicator of j^{th} state and X_i is the original value of the i^{th} indicator. Upon receiving *normalized values*, the next step was to assign *factor loadings* and *weights*. Weights to indicators can be assigned in a number of ways. One can judge the significance of an indicator and accordingly assign weight which is based up on the value judgment of an individual.

On the other hand, one can assign equal weights to all the indicators or assign different weights to different indicators according to significance of an indicator. The weightage in the computation of an EDI in the present exercise are determined by using *Factor Loadings* and *Eigen Values* from the Principal Component Analysis (PCA). PCA helps in reducing large number of indicators in a few (indicators/categories) without losing their significance which also simplifies analysis. PCA helps in weighing each indicator according to their statistical significance (see *Orienting Outlays Toward Needs: An Evidence-Based, Equity-Focused Approach for Sarva Shiksha Abhiyan* by Dhir Jhingran and Deepa Sankar, Unpublished, 2006). The components identified are known as *Principal Components* which explain maximum variance among a set of indicators. Therefore, the Principal Component Analysis is used to obtain factor loading and weights of the indicators in each of the four sets of indicators, which is done first at the Primary level and then at the Upper Primary level of education. Needless to mention that Primary stage/level of education consists of all Primary schools/sections irrespective of the type of schools; and Upper Primary stage /level of education consists of all the Upper Primary schools/sections irrespective of the type of schools. This means that all the schools imparting elementary education across the country irrespective of school type are considered in

computing EDI which includes schools under the government as well as private managements. Thus, indices for all the four types of indicators have been obtained separately for Primary and Upper Primary level of education which is then used to compute composite EDI for Primary and Upper Primary level of education separately. Composite EDI for Primary and Upper Primary levels of education is used to obtain composite EDI for the Elementary level of education.

In this section outcome of the EDI based on the DISE 2006-07 data is presented. An effort has also been made to compare EDI based state rankings in 2006-07 with those during the previous year 2005-06.

Analysis of EDI

“Weightage in the computation of an EDI are determined by using Factor Loadings and Eigen Values from the Principal Component Analysis. PCA helps in reducing large number of indicators in a few without losing their significance”

In view of different sizes and geographical locations of different States and UTs, they are further re-grouped under major states (21 states), states from the north-eastern region (7 states, excluding Assam, which has been considered as a major state because of its size and experience of DPEP), and smaller states (7 states). All the three groups and states in each group are at different level of education development. In view of spatial dimension, their need and requirement vary from state to state. For example, north-eastern states may need more new schools than in the states from the southern region. Similarly smaller States/UTs such as Andaman and Nicobar Islands because of their locations, need to be analysed separately. Most of the major states have experience of implementing large scale programmes, such as DPEP, but the same is not true in case of states in the other two groups, which practically did not experience any such programme in the past. SSA is the first major programme which has been initiated in these smaller states besides the major states. Within each state group, EDI in case of each state was used to assign fresh rankings based on each set of indicators as well as separately for Primary, Upper Primary and composite Elementary levels of education. The EDI reveals a lot about the regional variations that exist in the country which is true both for Primary and Upper Primary levels of education.

North-Eastern States

The seven states grouped under north-eastern region are Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura. Assam is not included in this group because of its size and also because of the fact that it experienced DPER. The EDI presented

education. The state attains an overall EDI of 0.662 for Elementary, 0.686 for Primary, and 0.637 for Upper Primary levels of education which is treated above average as an EDI ranges between 0.00 to 1.00. On the other hand, Mizoram with EDI of 0.658 at Upper Primary level is positioned first. In the previous year 2005-06, Mizoram was first in case of Primary as well

Table E2 (A)
Indices & Ranking at Primary/Upper Primary Level : North-Eastern States (Excluding Assam)
All Managements : All Schools, 2006-07

State	Access Index				Infrastructure Index				Teachers Index			
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank
Arunachal Pradesh	0.468	6	0.184	7	0.463	6	0.644	5	0.464	7	0.691	5
Manipur	0.530	5	0.500	4	0.553	4	0.702	3	0.603	6	0.716	4
Meghalaya	0.850	1	0.491	5	0.350	7	0.490	7	0.617	5	0.729	3
Mizoram	0.716	2	0.758	1	0.653	2	0.710	2	0.756	2	0.747	2
Nagaland	0.588	4	0.485	6	0.604	3	0.656	4	0.662	3	0.682	6
Sikkim	0.601	3	0.521	3	0.764	1	0.833	1	0.780	1	0.771	1
Tripura	0.402	7	0.615	2	0.548	5	0.539	6	0.625	4	0.658	7
State	Outcome Index				Composite EDI							
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Primary & Upper Primary Level		Rank	
Arunachal Pradesh	0.332	7	0.354	7	0.432	7	0.484	7	0.458		7	
Manipur	0.475	5	0.653	1	0.547	4	0.649	2	0.598		3	
Meghalaya	0.402	6	0.371	6	0.512	6	0.522	6	0.517		6	
Mizoram	0.525	1	0.415	3	0.663	2	0.658	1	0.661		2	
Nagaland	0.482	4	0.440	2	0.590	3	0.572	4	0.581		4	
Sikkim	0.511	2	0.375	5	0.686	1	0.637	3	0.662		1	
Tripura	0.504	3	0.376	4	0.542	5	0.547	5	0.545		5	

in Table E2 reveals that Sikkim outperformed the other six states in the region which is true for Primary and composite Primary and Upper Primary (Elementary) levels of education. Incidentally, Sikkim is placed 13th among all the 35 States and UTs of the country in case of composite Primary and Upper Primary levels of

as Upper Primary, and composite Primary and Upper Primary levels of education but except in case of Upper Primary level, it lost its position to Sikkim.

Individual EDIs in each set of indicators, however, reveal that Sikkim does not stand first in all the four sets which is true both for Primary and Upper Primary levels

of education. So far as the access indicators at Primary level are concerned, it is found to be very high at 0.850 in case of Meghalaya, compared to 0.716 in case of Mizoram. The lowest EDI in case of access indicators is observed in case of Tripura, having an EDI of 0.402, followed by Arunachal Pradesh with an EDI of 0.468.

So far as infrastructure set of indicators at Primary level is concerned, Sikkim has the highest EDI (0.764), which is also true for Upper Primary level of education (EDI, 0.833). It may be recalled that indicators, such as average SCR, availability of drinking water and common toilets and girls' toilets, are considered under

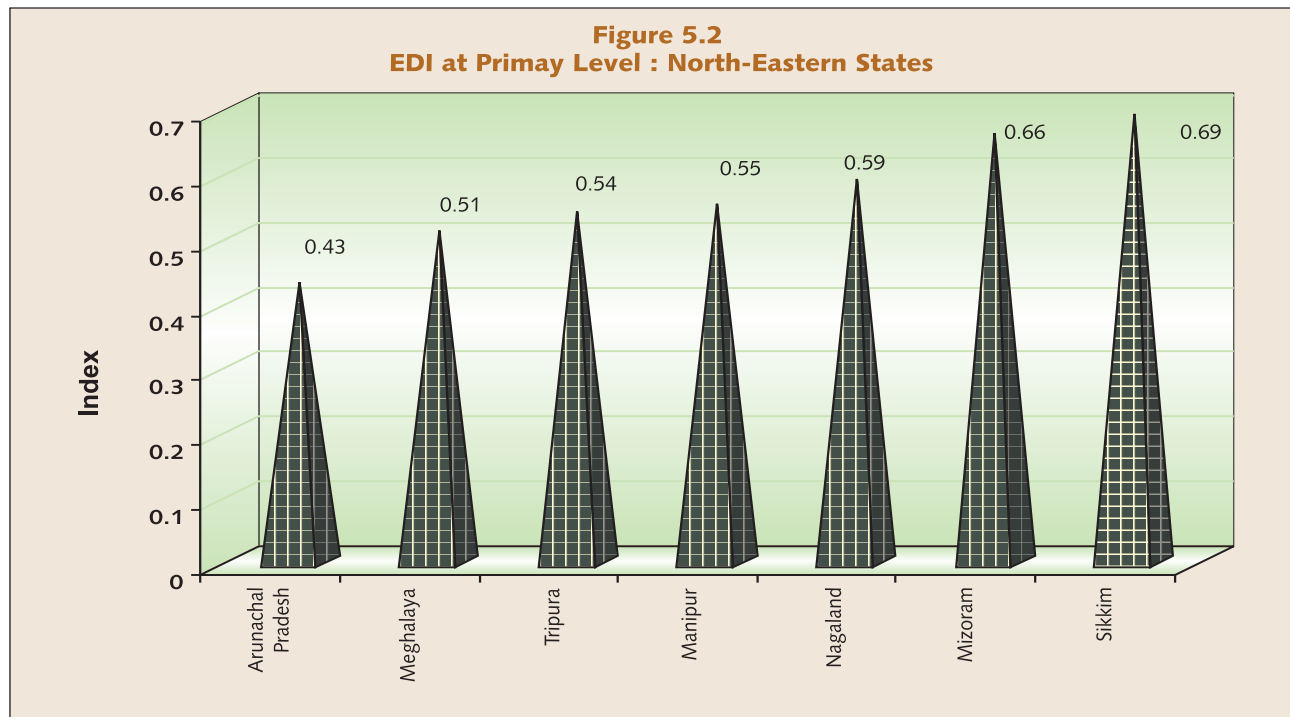


Table E2 (B)
Composite Educational Development Index : North-Eastern States (Excluding Assam)
Primary and Upper Primary Levels : All Schools & All Managements

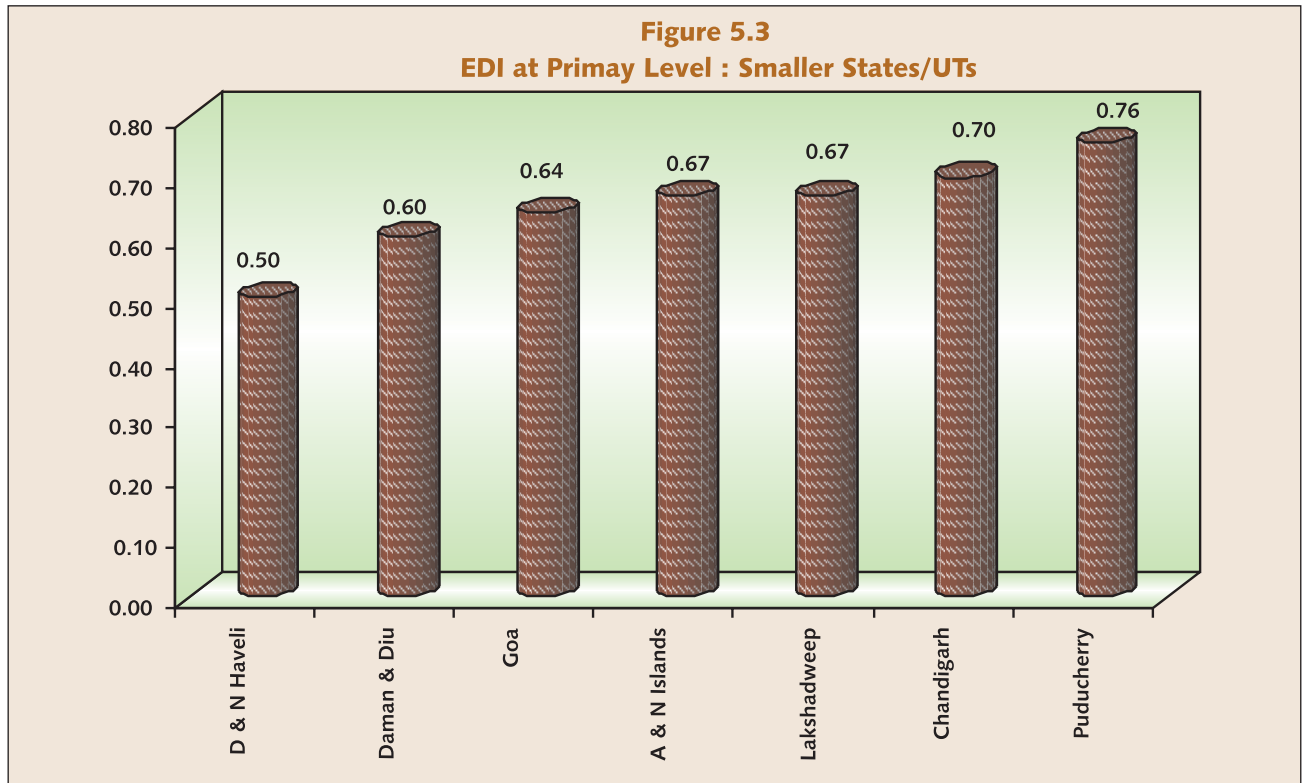
State	EDI & Rank Primary Level				EDI & Rank Upper Primary Level				Composite EDI & Rank (Primary & Upper Primary)			
	2005-06		2006-07		2005-06		2006-07		2005-06		2006-07	
Arunachal Pradesh	0.417	7	0.432	7	0.500	7	0.484	7	0.458	7	0.458	7
Manipur	0.520	3	0.547	4	0.608	3	0.649	2	0.564	3	0.598	3
Meghalaya	0.512	4	0.512	6	0.556	6	0.522	6	0.534	5	0.517	6
Mizoram	0.623	1	0.663	2	0.677	1	0.658	1	0.650	1	0.661	2
Nagaland	0.510	6	0.590	3	0.556	5	0.572	4	0.533	6	0.581	4
Sikkim	0.611	2	0.686	1	0.660	2	0.637	3	0.635	2	0.662	1
Tripura	0.511	5	0.542	5	0.560	4	0.547	5	0.535	4	0.545	5

On the other hand, Sikkim is third with an EDI of 0.601 in case of access indicators, compared to an overall first rank at Primary level of education. But the situation is not the same in other sets of indicators at Primary level.

infrastructural set of indicators. Sikkim is followed by Mizoram with an EDI of 0.653. The lowest EDI (0.350) is observed in Meghalaya which is quite similar to the position in the previous year 2005-06. This shows a wide

spread regional variations. Meghalaya also has the lowest infrastructure index (0.490) in case of Upper Primary level, indicating that by and large majority of its schools imparting Elementary education do not possess minimum facilities in schools. But the position of the state in case of other sets of indicators, is slightly better than that of infrastructure index which is true both for Primary and Upper Primary levels of education. The schools in

So far as the set of teachers' indicators is concerned, it is Sikkim that is on top of the list with EDI of 0.780, compared to an EDI of 0.648 in the previous year. It may be recalled that six indicators concerning teachers, including percentage of female teachers and pupil-teacher ratio, were used. Mizoram is second with EDI 0.756 and Arunachal Pradesh is the last with EDI 0.464.



Arunachal Pradesh also do not have minimum facilities as the EDIs obtained at the Primary and Upper Primary levels respectively are 0.463 and 0.644. It is worth mentioning here that Arunachal Pradesh stands last in Primary level EDI (0.432) as its ranking is 33 out of 35 states included in the analysis. In 2005-06, it was at 34th position. Arunachal Pradesh has also a lower rank in Upper Primary (30) and Elementary (32) levels as a whole. It is also interesting to further note that irrespective of states, infrastructure facilities are much better in Upper Primary schools than the same in the Primary schools across the seven states of the north-eastern region.

“Like infrastructure, most of the states in the north-eastern region are also better placed at Upper Primary level with regard to teachers' indicators compared to Primary level”

In case of teachers' indicators, Sikkim, with EDI 0.780, stands 7th amongst all the 35 states in case of Primary education; and with EDI 0.771 in case of Upper Primary level of education, its rank is 12th. Last year, Sikkim was ranked 14th in case of teachers index in this regard. Likewise, the state has improved its positions in case of all the three levels of education. Like infrastructure, most of the states in the north-eastern region are also better placed at Upper Primary level with regard to teachers' indicators compared to Primary level. Both at the Primary and Upper Primary levels of education,

the lowest ranked state in the north-eastern region with regard to teachers' indicators is Arunachal Pradesh with an EDI of 0.464 at Primary and 0.691 at Upper Primary level. The corresponding position of Arunachal Pradesh, amongst all the 35 states, is 28th at Primary and 21st at Upper Primary level of education which shows a slight improvement in its position compared to the same in the previous year.

The last set of indicators used is the outcome indicators. As many as 9 indicators are used to see the position of all the 35 states, including seven states from the north-eastern region. The list of indicators used is quite comprehensive through which true picture of universalisation can be obtained. Barring Arunachal Pradesh and Manipur, all the other states in the north-eastern region reported a lower EDI for Upper Primary level compared to Primary level of education, which is just reverse in case of teachers and infrastructure indicators. Amongst all the states at Primary level, rank of Sikkim is 20th compared to 35th of Arunachal Pradesh. It shows improvement in case of Sikkim and deterioration in case of Arunachal Pradesh over the previous year. Correspondingly, they stand second and last within the north-eastern states with respective EDI values of 0.511 and 0.332. Their respective EDIs at Upper Primary level being lower than Primary level, are 0.375 and 0.354 which may be termed as far below the average EDI. However, Mizoram with an EDI of 0.525, ranked first in case of outcome index at Primary level, and 3rd (EDI, 0.415) at Upper Primary level. Though Sikkim stands first with regard to its position at the Primary level, but the same is not true in case of outcome index where it is ranked 2nd with an EDI value of 0.511. At the Upper Primary level, it is ranked 3rd compared to 5th in case of outcome index. It is observed that different states have different positions in different sets of indicators. A careful examination of all the four sets of indicators as well as individual indicators, and also computation of district-specific EDIs in each state, will help states to identify limitations without which no improvement can be

expected. The provisions made under SSA can also be best used if such an analysis is carried out.

Smaller States

States/UTs, such as Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Goa, Lakshadweep, and Puducherry, are the seven states which have been grouped under smaller states, based on the total number of schools and population they have (Table E3). May be these states are small in size but a cursory look at EDI values indicates that they are doing much better than a number of major states, both in

“Puducherry is ranked 2nd in case of Primary and Upper Primary levels of education. Not only it could maintain its overall position at Upper Primary level but it has also advanced from its 4th position in 2005-06 to 2nd position with regard to Primary level of education”

Primary and Upper Primary levels of education. The EDI values and rankings during 2005-06 and 2006-07 indicate a marked improvement in case of Puducherry in composite Primary and Upper Primary levels of education. Not only it is ranked first within the set of smaller states but is also ranked 2nd with an EDI value of 0.771 amongst all the States and UTs of the country in case of composite Primary and Upper Primary levels of education.

Amongst all states, Puducherry is ranked 2nd in case of Primary (EDI, 0.761) and Upper Primary (EDI, 0.780) levels of education. Not only it could maintain its overall position at Upper Primary level but it has also advanced from its 4th (EDI, 0.651) position in 2005-06 to 2nd (EDI, 0.761) position with regard to Primary level of education. Irrespective of an educational level, Puducherry is ranked first amongst the smaller set of states but the same is not true in case of all the four individual sets of indicators used in computing EDI both at the Primary and Upper Primary levels of education. The second amongst these states is Chandigarh with an EDI of 0.709 at Primary level and 0.752 at Upper Primary level of education. In case of composite Primary and Upper Primary levels, Chandigarh again is ranked second with an EDI of 0.731.

It may be of interest to note that Chandigarh's overall ranking is 5th (EDI, 0.709) at the Primary and 4th (EDI, 0.752) at Upper Primary level. The other smaller state doing better is Lakshadweep which has only 30 schools under its administration. In overall ranking, it

stands 8th at Primary level (EDI, 0.672) and 7th (EDI, 0.713) at Upper Primary level of education.

Irrespective of states, EDI values at Upper Primary level of education is much higher than the same at the Primary level of education which is quite similar to states in the north-eastern region and also during the previous year. Further, it is observed that except Dadra

indicators, which is true for both Primary and Upper Primary levels. The highest EDI for access indicators at Primary level is observed in Lakshadweep (EDI, 0.533) and the lowest (EDI, 0.237) in Arunachal Pradesh. At Upper Primary level, the lowest EDI is also observed in Arunachal Pradesh (EDI, 0.442) and the highest in Chandigarh (EDI, 0.739). Lakshadweep stands 5th (EDI, 0.605) amongst seven smaller states included

Table E3 (A)
Indices & Ranking at Primary/Upper Primary Level : Smaller States/UTs
All Managements : All Schools, 2006-07

State/UT	Access Index				Infrastructure Index				Teachers Index			
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank
A & N Islands	0.237	7	0.442	7	0.723	3	0.810	5	0.849	3	0.904	2
Chandigarh	0.365	6	0.739	1	0.792	2	0.829	4	0.933	1	0.970	1
D & N Haveli	0.507	2	0.670	4	0.524	7	0.582	7	0.430	7	0.629	7
Daman & Diu	0.389	5	0.713	2	0.679	6	0.745	6	0.736	5	0.744	6
Goa	0.506	3	0.516	6	0.686	5	0.861	2	0.736	6	0.854	4
Lakshadweep	0.533	1	0.605	5	0.704	4	0.842	3	0.834	4	0.780	5
Puducherry	0.480	4	0.684	3	0.863	1	0.875	1	0.855	2	0.891	3
State/UT	Outcome Index				EDI							
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Composite (Primary & Upper Primary)		Rank	
A & N Islands	0.605	2	0.520	3	0.670	4	0.683	4	0.676		4	
Chandigarh	0.503	5	0.446	4	0.709	2	0.752	2	0.731		2	
D & N Haveli	0.563	3	0.393	6	0.502	7	0.568	7	0.535		7	
Daman & Diu	0.441	7	0.425	5	0.601	6	0.660	5	0.631		6	
Goa	0.515	4	0.330	7	0.636	5	0.654	6	0.645		5	
Lakshadweep	0.498	6	0.592	2	0.672	3	0.713	3	0.692		3	
Puducherry	0.663	1	0.640	1	0.761	1	0.780	1	0.771		1	

& Nagar Haveli (29th rank), all smaller states have rankings within the first 20 states at the Primary level. With regard to ranking of all these states at Upper Primary level, all of them except Dadra & Nagar Haveli stand within the first 17 states.

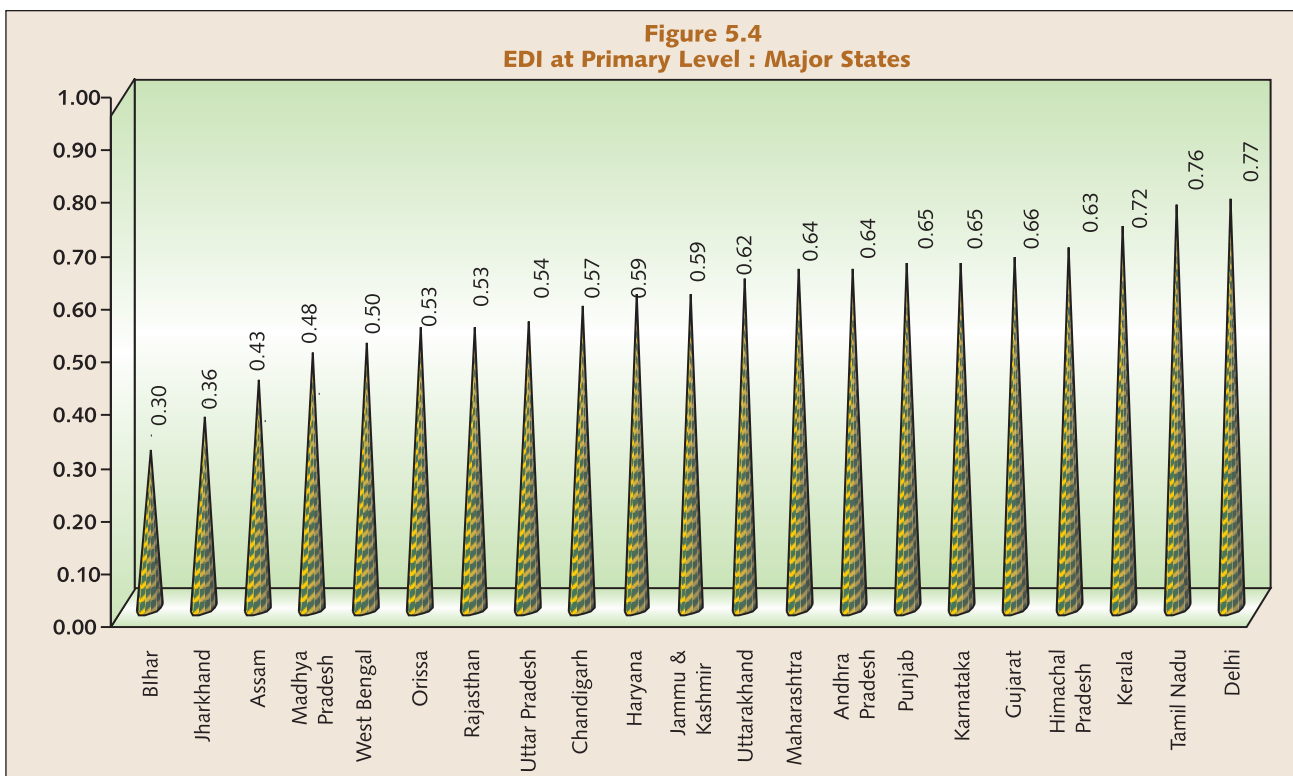
Like states in the north-eastern region, separate analysis is also carried out in case of each of the four sets of indicators. It is observed that EDI value for access indicators is much lower than for the other sets of

in the analysis. Even within a set of indicators, the states have not provided equal measure of Primary and Upper Primary schooling facilities. Further, it is observed that all states have a higher EDI value at Upper Primary level than at Primary level.

It may be recalled that only two indicators, namely access-less habitations and number of schools per thousand population, were used under access indicators at Primary level. Since DISE does not collect information

according to habitations, the number of access-less habitations in case of each state, as mentioned above, is taken from the AIES. It is also true that a good number of habitations have been provided schooling facilities since 2002-03, the year for which AIES data is the latest available. This is also true in view of SSA under which activities in terms of opening of new schools picked-up in 2002-03 onwards; this is not reflected in school-less habitations. In the light of these observations, ratio of Primary to Upper Primary schools/sections has been used at the Upper Primary level of education to assess the availability of Upper Primary schooling facilities which, like other indicators, is computed based on DISE data.

within the first 15 amongst all the 35 states. Almost similar positions are observed at Upper Primary level wherein the position of Dadra and Nagar Haveli is 26th and the rest of the six states are ranked amongst the first 19 states. It may be recalled that Dadra and Nagar Haveli is amongst the lowest ranked states having an overall rank of 29th at Primary level (EDI, 0.502) and 24th at Upper Primary level of education (EDI, 0.568). Further, it has also been observed that both at these levels, EDI values are much high in case of infrastructure indicators than the access indicators which is similar to the situation in 2005-06. The EDI also suggests that Upper Primary schools/sections are better placed with



The next set of indicators analysed is infrastructure indicators. The highest EDI value at Primary level is observed in case of Puducherry (EDI, 0.863) and lowest (EDI, 0.524) in case of Dadra and Nagar Haveli. Puducherry attained 4th position amongst 35 states in this respect and Dadra and Nagar Haveli, 28th. Puducherry's overall position in infrastructure index at Upper Primary level is also 4th with an EDI value of 0.863. Next to Puducherry is Chandigarh (EDI, 0.792) at Primary level. Except Dadra & Nagar Haveli (EDI, 0.524 and rank 28), all other six smaller states ranked high and are

regard to infrastructure in Primary schools/sections which is quite similar to the states in the north-eastern region. It is good to have better infrastructure in Upper Primary schools but it is equally important to provide better infrastructure also in all Primary schools.

The next set of indicators that have been analysed is indicators concerning teachers amongst which pupil-teacher ratio and percentage of single-teacher schools are the most prominent ones. In a good number of smaller states, EDI values for teachers indicators are higher than for access and infrastructure indicators. It

may be recalled that smaller states as well as states from the north-eastern region are better placed with regard to PTR, both at Primary and Upper Primary levels of education. This is also true in case of a few other states, like Himachal Pradesh.

The highest EDI at Primary level is observed in Chandigarh (EDI, 0.933) and the lowest (EDI, 0.430) in Dadra and Nagar Haveli, which is exactly similar to the ranking in 2005-06. The second ranked state for this set of indicators is Puducherry with an EDI of 0.855, followed by Andaman and Nicobar Islands (EDI, 0.849) and Lakshadweep (EDI, 0.834). On the other hand, at Upper Primary level, Chandigarh with an EDI 0.970 is ranked

Upper Primary level of education. Another state from this group, i.e. Lakshadweep, is also ranked high at 6th at Primary and 5th at Upper Primary levels of education. However, all these states are not comfortably placed in other sets of indicators wherein their positions are much lower than the same in case of teacher-based indicators.

Making available schooling facilities, infrastructure and teachers in schools should also be reflected in the outcome indicators. That is why the last set of indicators analysed is the set of outcome indicators. It is noticed to have much lower EDI values than the infrastructure and teachers indicators and it is true for both Primary and

Table E3 (B)
Composite Educational Development Index : Smaller States/UTs
Primary and Upper Primary Levels : All Schools & All Managements

State/UT	EDI & Rank Primary Level				EDI & Rank Upper Primary Level				Composite EDI & Rank (Primary & Upper Primary)			
	2005-06		2006-07		2005-06		2006-07		2005-06		2006-07	
A & N Islands	0.511	6	0.670	4	0.620	6	0.683	4	0.566	6	0.676	4
Chandigarh	0.642	2	0.709	2	0.737	2	0.752	2	0.690	2	0.731	2
D & N Haveli	0.492	7	0.502	7	0.584	7	0.568	7	0.538	7	0.535	7
Daman & Diu	0.536	4	0.601	6	0.648	4	0.660	5	0.592	4	0.631	6
Goa	0.529	5	0.636	5	0.643	5	0.654	6	0.586	5	0.645	5
Lakshadweep	0.635	3	0.672	3	0.664	3	0.713	3	0.650	3	0.692	3
Puducherry	0.651	1	0.761	1	0.748	1	0.780	1	0.700	1	0.771	1

first, followed by Andaman and Nicobar Islands (EDI, 0.904). Though small in size, Chandigarh is ranked first with regard to teachers indicators amongst all the 35 states. However, both at Primary and Upper Primary levels, Chandigarh, Dadra and Nagar Haveli, Daman and Diu and Lakshadweep are respectively at 1st, 7th, 6th and 5th positions which is quite similar to the ranking in the previous year.

Further, it is observed that the ranking of smaller states, except Dadra and Nagar Haveli, both in case of Primary and Upper Primary levels, is very high with regard to teachers indicators analysed amongst 35 states. Chandigarh UT is ranked first, both at Primary and Upper Primary levels, and Puducherry 4th at Primary and 5th at

Upper Primary levels of education. The highest EDI is observed in case of Puducherry, both at the Primary (EDI, 0.663) and Upper Primary (EDI, 0.640) levels of education. It may be observed that Puducherry is not ranked first amongst other sets of indicators (except infrastructure indicators) used in computation of EDI. It is also of interest to note that in most of the states, EDI values are much lower at Upper Primary level than at Primary level, which is just the reverse when other sets of indicators are considered. Infrastructure and teachers indicators are better placed in the Upper Primary level but the same is not true in case of outcome indicators which plays the most important role for achieving the goal of universalisation of elementary education. Unlike in other sets of indicators, most of the smaller states are

not placed within the first 10 states at Primary level so far as this set of indicators is concerned. However, Puducherry is placed 7th amongst the 35 states with regard to outcome indicators at Upper Primary level and 4th at Primary level. The 2nd ranked state at Primary level is Andaman & Nicobar Islands but the state is ranked 6th at Upper Primary level (EDI, 0.520). The EDI in case of Daman & Diu at Primary level (EDI, 0.441) and that of Goa (EDI, 0.330) at Upper Primary level are much lower than the same in case of Puducherry which is ranked first with regard to outcome indicators both in case of Primary and Upper Primary levels. Incidentally, Daman and Diu is one of the lowest ranked states with regard to outcome indicators at Primary level (rank 31).

Major States

As mentioned above, that the seven states of the north-eastern region and seven other smaller states have been clubbed in two separate groups, and the remaining 21 states, including the national capital of Delhi, have been grouped under major states. Except Delhi, all the other states in the group have experience of initiating major programmes like the District Primary Education Programme (DPEP).

So far as the composite Primary and Upper Primary education EDI amongst 21 major states is concerned, the top five ranking states are Kerala (EDI, 0.772), Delhi (EDI, 0.757), Tamil Nadu (EDI, 0.741), Himachal Pradesh (EDI, 0.707) and Karnataka (EDI, 0.680); it is almost similar to the rankings in the previous year. Kerala and Delhi maintained their first and second positions but Karnataka conceded its fourth position (EDI, 0.680) to Himachal Pradesh (EDI, 0.707). However, Karnataka's EDI value (0.680) in 2006-07 is slightly higher than the same in the previous year (0.674). These states also have almost similar rankings both in case of Primary and Upper Primary levels of education. However, Tamil Nadu at Primary level conceded its second position to Kerala, and Karnataka its fourth position at Upper Primary level to Himachal Pradesh. EDI at Primary level in case of Tamil

Nadu is higher in 2006-07 (0.724) than the same in 2005-06 (0.672). These states are generally seen as educationally advanced states. It may be noted that no major difference is found in composite EDI in case of first three states and also between fourth and fifth ranked states. However, irrespective of an educational level, the difference in EDI values between the highest and lowest ranked states is significant, showing that states are at different levels of educational development. This is also true for all the four sets of indicators used in computing EDI.

On the other hand, Bihar and Jharkhand are ranked 35 and 34 in case of composite primary and upper primary levels of education with an EDI as low as 0.321 and 0.381 respectively which is much lower than that of the top ranked states. Both states have lower EDI values

in 2006-07 than the same in 2005-06 which is true for both primary, upper primary and composite primary and upper primary levels of education (barring upper primary in Bihar). In the overall ranking, West Bengal and Arunachal Pradesh are placed 33rd and 32nd respectively in case of composite EDI at primary and upper primary levels which is quite similar to their positions in 2005-06.

Like smaller states and states from the north-eastern region, all these five states have higher EDI values at Upper Primary than at Primary level of education. For example, EDIs in case of Kerala are 0.756 at Primary and 0.788 at Upper Primary levels compared to 0.767 and 0.747 respectively in case of Delhi. Almost similar EDI values are obtained in case of the remaining three states. Gujarat (0.677), Maharashtra (0.677), Andhra Pradesh (0.670) and Punjab (0.654), closely follow the first five ranked states (Table E4) in case of composite Primary and Upper Primary levels of education.

The individual EDI values in case of each of these states in four sets of indicators have also been analysed critically. First, index in case of access indicators is discussed which reveals that none of the top five ranked states maintained their respective positions at Primary level, which is also true for Upper Primary level of

“So far as the composite Primary and Upper Primary EDI amongst 21 major states is concerned, the top five ranking states are Kerala, Delhi, Tamil Nadu, Himachal Pradesh and Karnataka; it is almost similar to the rankings in the previous year”

education. Himachal Pradesh improved its position from fourth to third at Primary and maintained its 4th rank at Upper Primary level. The top ranked Kerala lost its position to Chhattisgarh at Primary level and to Gujarat at Upper Primary level. Needless to mention that Gujarat

state has achieved the goal of universal access and does not need more schools to open. The indices in case of Himachal Pradesh with regard to access indicators are as high as 0.595 at Primary level and 0.681 at Upper Primary level. Like other groups of states, EDI of major

Table E4 (A)
Indices & Ranking at Primary/Upper Primary Level : Major States
All Managements : All Schools, 2006-07

State	Access Index				Infrastructure Index				Teachers Index			
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank
Andhra Pradesh	0.610	2	0.567	14	0.604	13	0.773	9	0.681	8	0.823	4
Assam	0.593	4	0.521	17	0.302	20	0.425	20	0.402	17	0.614	13
Bihar	0.437	19	0.495	19	0.260	21	0.237	21	0.241	21	0.400	18
Chhattisgarh	0.624	1	0.607	12	0.483	18	0.570	17	0.491	14	0.481	16
Delhi	0.520	11	0.689	3	0.909	1	0.916	1	0.888	2	0.932	1
Gujarat	0.530	9	0.770	1	0.711	8	0.742	13	0.701	4	0.723	10
Haryana	0.483	17	0.648	7	0.801	4	0.871	4	0.587	11	0.640	12
Himachal Pradesh	0.595	3	0.681	4	0.679	9	0.791	8	0.698	6	0.783	5
Jammu & Kashmir	0.580	6	0.664	5	0.526	16	0.671	14	0.697	7	0.781	6
Jharkhand	0.435	20	0.347	20	0.306	19	0.429	19	0.303	20	0.503	15
Karnataka	0.537	8	0.694	2	0.677	10	0.757	12	0.670	9	0.731	9
Kerala	0.326	21	0.609	11	0.866	3	0.909	2	0.898	1	0.902	2
Madhya Pradesh	0.593	5	0.590	13	0.540	15	0.581	15	0.355	19	0.380	19
Maharashtra	0.503	14	0.660	6	0.660	11	0.767	10	0.700	5	0.739	7
Orissa	0.511	13	0.537	16	0.575	14	0.574	16	0.539	13	0.338	20
Punjab	0.526	10	0.639	8	0.887	2	0.907	3	0.615	10	0.738	8
Rajasthan	0.487	16	0.616	10	0.643	12	0.765	11	0.463	16	0.674	11
Tamil Nadu	0.501	15	0.538	15	0.771	5	0.829	6	0.763	3	0.863	3
Uttar Pradesh	0.450	18	0.499	18	0.741	7	0.830	5	0.378	18	0.229	21
Uttarakhand	0.572	7	0.623	9	0.759	6	0.808	7	0.568	12	0.453	17
West Bengal	0.513	12	0.290	21	0.497	17	0.511	18	0.476	15	0.536	14

Continued.....

is ranked 5th (EDI, 0.655) at Primary level amongst 21 major states but it is ranked at 11th, if all the 35 states are considered. The respective indices in case of Kerala are as low as 0.326 (rank 21) at Primary and 0.609 (rank 11) at Upper primary level. Despite Kerala having been doing well in all other sets of indicators, the state is not well placed with regard to access indicators. May be the

states in case of access indicators is far below than that of the other sets of indicators which is true for Primary as well as Upper Primary levels of education.

So far as infrastructure indicators are concerned, except Delhi, none of the other first five ranked states could maintain their respective positions. Delhi in fact

has improved its overall position from 2nd to 1st with respect to infrastructure index which is true both for Primary (EDI, 0.909) and Upper Primary (EDI, 0.916) levels of education. Higher infrastructure index indicates that most of the schools in Delhi have got drinking water,

level and 3rd at Upper Primary level (EDI, 0.907) with regard to infrastructure indicators. By and large, Tamil Nadu could also maintain its overall rank regarding infrastructure indicators, that is, it is ranked 5th (EDI, 0.771) at Primary level and 6th (EDI, 0.829) at Upper

Table E4 (A)
Indices & Ranking at Primary/Upper Primary Level : Major States
All Managements : All Schools, 2006-07

State	Outcome Index				EDI						
	Primary Level	Rank	Upper Primary Level	Rank	Primary Level	Rank	Upper Primary Level	Rank	Composite (Primary & Upper Primary)	Rank	
Andhra Pradesh	0.646	5	0.609	7	0.639	9	0.700	7	0.670	8	
Assam	0.557	10	0.533	10	0.433	19	0.521	15	0.477	18	
Bihar	0.388	20	0.228	21	0.309	21	0.334	21	0.321	21	
Chhattisgarh	0.539	11	0.448	12	0.517	16	0.526	14	0.521	15	
Delhi	0.564	9	0.409	14	0.767	1	0.747	3	0.757	2	
Gujarat	0.593	7	0.560	8	0.655	5	0.699	8	0.677	6	
Haryana	0.385	21	0.335	16	0.591	12	0.632	12	0.612	12	
Himachal Pradesh	0.683	2	0.684	3	0.675	4	0.739	4	0.707	4	
Jammu & Kashmir	0.577	8	0.547	9	0.599	11	0.667	9	0.633	10	
Jharkhand	0.460	18	0.316	18	0.360	20	0.402	20	0.381	20	
Karnataka	0.662	4	0.638	6	0.653	6	0.708	6	0.680	5	
Kerala	0.665	3	0.693	2	0.756	2	0.788	1	0.772	1	
Madhya Pradesh	0.492	16	0.384	15	0.478	18	0.483	17	0.481	17	
Maharashtra	0.629	6	0.659	5	0.644	8	0.710	5	0.677	7	
Orissa	0.467	17	0.326	17	0.529	15	0.445	18	0.487	16	
Punjab	0.453	19	0.308	19	0.649	7	0.659	10	0.654	9	
Rajasthan	0.502	15	0.448	13	0.532	14	0.632	13	0.582	13	
Tamil Nadu	0.735	1	0.763	1	0.724	3	0.757	2	0.741	3	
Uttar Pradesh	0.528	12	0.464	11	0.538	13	0.514	16	0.526	14	
Uttarakhand	0.513	14	0.673	4	0.615	10	0.643	11	0.629	11	
West Bengal	0.527	13	0.295	20	0.500	17	0.416	19	0.458	19	

common toilets and girls' toilet facility, which is not true for other four states. It may be recalled that Himachal Pradesh has very high ranking with respect to access indicators but the same is not true for infrastructure index. The state ranked 9th at Primary level (EDI, 0.679) and 8th at Upper Primary level (EDI, 0.791) in this aspect. Punjab with an overall rank of 9th (composite Primary and Upper Primary) is placed 2nd (EDI, 0.887) at Primary

Primary level, compared to its overall 3rd rank (EDI, 0.741). Further, infrastructure index reveals that by and large, it is higher in case of Upper Primary level compared to Primary level. The same was also observed in case of smaller states and states in the north-eastern region.

The next sets of indicators that have been discussed fall under the category of teachers and outcome

indicators. Delhi and Tamil Nadu maintained their high rankings with regard to teachers' index at Primary level which is also true for Upper Primary level of education. However, Kerala slipped to 2nd position. But the same is not true in case of Himachal Pradesh and Karnataka, both for Primary and Upper Primary levels of education. Kerala with EDI of 0.898 and 0.902 at the Primary and Upper Primary levels is respectively ranked 1st and 2nd so

teachers' index both at the Primary and Upper Primary levels. On the other hand, 4th ranked Himachal Pradesh is 6th (EDI, 0.698) at Primary level and 5th (EDI, 0.783) at Upper Primary level with regard to teachers' index.

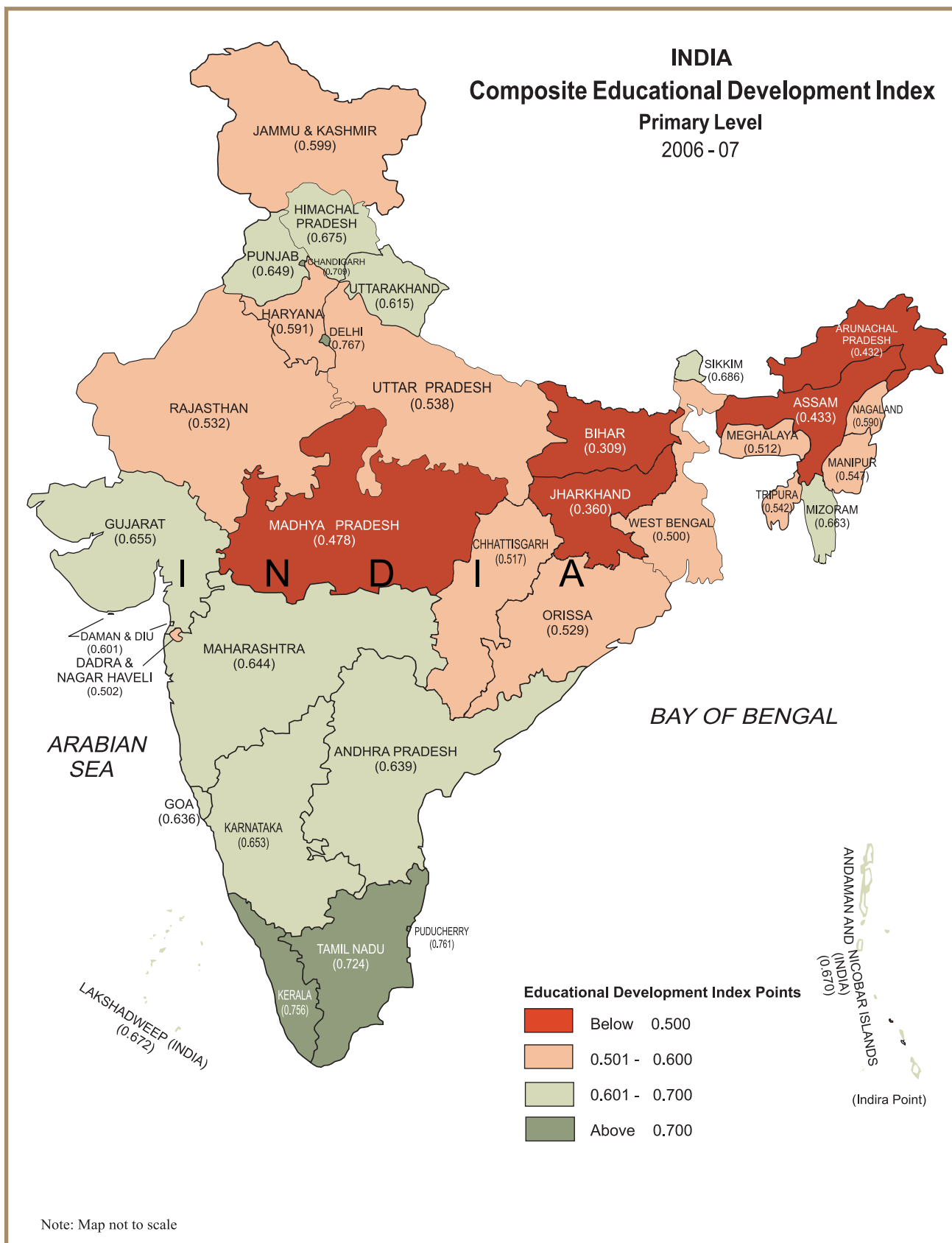
Further, it is observed that in most of the 21 major states, teachers' index is observed to be higher for Upper Primary level compared to Primary level. However, the same is not true for outcome index,

Table E4 (B)
Composite Educational Development Index
Primary and Upper Primary Level : Major States
All Schools : All Managements

State	EDI & Rank Primary Level				EDI & Rank Upper Primary Level				Composite EDI & Rank (Primary & Upper Primary)			
	2005-06		2006-07		2005-06		2006-07		2005-06		2006-07	
Andhra Pradesh	0.604	6	0.639	9	0.705	6	0.700	7	0.654	6	0.670	8
Assam	0.454	18	0.433	19	0.525	15	0.521	15	0.490	17	0.477	18
Bihar	0.335	21	0.309	21	0.319	21	0.334	21	0.327	21	0.321	21
Chhattisgarh	0.557	11	0.517	16	0.561	14	0.526	14	0.559	13	0.521	15
Delhi	0.688	1	0.767	1	0.725	3	0.747	3	0.707	2	0.757	2
Gujarat	0.595	7	0.655	5	0.666	8	0.699	8	0.630	8	0.677	6
Haryana	0.521	15	0.591	12	0.591	13	0.632	12	0.556	14	0.612	12
Himachal Pradesh	0.630	4	0.675	4	0.707	5	0.739	4	0.668	5	0.707	4
Jammu & Kashmir	0.556	12	0.599	11	0.639	10	0.667	9	0.597	11	0.633	10
Jharkhand	0.428	20	0.360	20	0.441	20	0.402	20	0.435	20	0.381	20
Karnataka	0.627	5	0.653	6	0.720	4	0.708	6	0.674	4	0.680	5
Kerala	0.660	3	0.756	2	0.755	1	0.788	1	0.708	1	0.772	1
Madhya Pradesh	0.514	16	0.478	18	0.509	16	0.483	17	0.512	16	0.481	17
Maharashtra	0.593	8	0.644	8	0.677	7	0.710	5	0.635	7	0.677	7
Orissa	0.522	14	0.529	15	0.502	17	0.445	18	0.512	15	0.487	16
Punjab	0.568	10	0.649	7	0.648	9	0.659	10	0.608	9	0.654	9
Rajasthan	0.540	13	0.532	14	0.626	12	0.632	13	0.583	12	0.582	13
Tamil Nadu	0.672	2	0.724	3	0.730	2	0.757	2	0.701	3	0.741	3
Uttar Pradesh	0.482	17	0.538	13	0.482	18	0.514	16	0.482	18	0.526	14
Uttarakhand	0.575	9	0.615	10	0.635	11	0.643	11	0.605	10	0.629	11
West Bengal	0.454	19	0.500	17	0.480	10	0.416	19	0.467	19	0.458	19

far as teachers' index is concerned. Kerala is followed by Delhi (EDI, 0.888; rank 2nd) and Tamil Nadu (EDI, 0.763; rank 3rd) at the Primary level. The rank of Karnataka, with an overall 5th rank, is 9th in case of

consisting of GER, examination results, GPI, dropout and repetition rates, etc. Tamil Nadu replaced Kerala and Delhi both at Primary (EDI, 0.735) and Upper Primary (EDI, 0.763) levels in this set of indicators.



Map 5.1

Next to Tamil Nadu are Himachal Pradesh at Primary (EDI, 0.683) and Kerala (EDI, 0.693) at Upper Primary levels. Karnataka is ranked 4th (EDI, 0.662) with regard to outcome index at Primary level, 6th with EDI values of 0.653 and 0.708 respectively at Primary and Upper Primary levels amongst the 21 states considered. But it's overall position in case of composite index is 5th with EDI 0.680.

The analysis of EDI clearly reveals that different states are at different levels of educational development in general, and Primary and Upper Primary levels of education in particular. A few states with high EDI values are termed better than the rest of the states but still they may not be well placed with regard to all the four sets of indicators used in computation of EDI. Even if a state is ranked first, still it may need further improvement for which individual EDI value should be critically analyzed. In addition, there is also need to analyse each indicator separately and identify states that need improvement. For instance, Bihar (21), Jharkhand (20), West Bengal (19), Assam (18), Madhya Pradesh (17) and Orissa (16), are a few low ranking states on composite Primary and Upper Primary levels which is also almost true separately for Primary and Upper Primary levels. The composite rank of Bihar and Jharkhand amongst 21 major states remained the same both in 2005-06 and 2006-07 whereas West Bengal slipped to 19th position from 18th in 2005-06. Among the 35 States and UTs, overall ranking of Bihar, Jharkhand and West Bengal is 35, 34 and 33 respectively, all of which are traditionally seen as educationally backward states. Irrespective of sets of indicators, the rank of Bihar varies between 18 to 21 among the 21 major states considered in analysis under major group of states.

A careful analysis would reveal that in a state like Bihar, more than 91 pupils are made to sit in one classroom imparting elementary education. At the same time, pupil-teacher ratio in Bihar is very high (64 pupils per teacher), and in a good number of schools (17.17 percent) PTR is above 100. This is also true for another educationally backward state, namely Jharkhand. The

student-classroom ratio in Jharkhand is as high as 65:1. There are still 17.30 percent single-teacher schools across the state. On the other hand, in a state like West Bengal, the ratio of Primary to Upper Primary schools/sections is above 5; it is the only state in the country to have the ratio above 5, meaning availability of an Upper Primary school/section per set of 5 Primary schools/sections. In many of these educationally backwards states, enrolment is noticed to be on rise but at the same time a good number of pupils drop out and those who continue do not reach terminal grade. Bihar also has low percentage of girls both at Primary (45.89 percent) and Upper Primary (41.66 percent) levels. In Bihar, average repetition rate is as high as 11.13 percent and dropout rate as high as 9.34 percent in Primary classes compared to 8.09 percent drop out rate in Jharkhand. On the other hand, retention rate at Primary level in Bihar is around

44 percent. Over time, transition rate has improved but still a good number of pupils drop out from the system before the completion of an educational level and those who continue do not necessarily attain education that can be called satisfactory. All districts together reveal that only 44.96 percent boys and 45.12 percent girls pass with

60 percent and above marks in the terminal Grade IV/V, suggesting the need for careful identification of problems. DISE database can be used to identify all such locations and schools which need immediate attention.

“To improve their overall position, the states should compute district-specific EDIs and should analyse EDI values separately in case of access, infrastructure, teachers and outcome indicators”

Concluding Observations

Based upon the composite EDI at primary level, states can be grouped into four clusters: Cluster I: EDI up to 0.50, Cluster II: 0.51 to 0.60, Cluster III: 0.61 to 0.70 and Cluster IV: 0.71 and above. Five states have found place in the first cluster having EDI value up to 0.50; the states are Bihar, Jharkhand, Arunachal Pradesh, Assam and Madhya Pradesh. Except Arunachal Pradesh, remaining states are big in size (population) and important for the country to achieve the goal of UEE. On the other hand, 12 states are placed in the second cluster having an EDI value between 0.51 and 0.60. Small as well as major states are placed in this cluster. States like West Bengal, Chhattisgarh, Orissa, Rajasthan, Uttar

Pradesh, Haryana and Jammu and Kashmir are placed in this cluster. On the other hand, smaller states like Dadra and Nagar Haveli, Meghalaya, Tripura, Manipur and Nagaland are also placed in the second cluster with an EDI value between 0.51 to 0.60. All the 17 states from the first and second group need immediate attention. To improve their overall position, the states should compute district-specific EDIs and should analyse EDI values separately in case of access, infrastructure, teachers and outcome indicators. On the other hand, thirteen states are placed in the third cluster with an EDI between 0.61 to 0.70 and only 5 in the fourth cluster having an EDI between 0.71 to 0.77. Even the five top ranking states are not perfect in case of all the four sets of indicators as reflected in individual EDI values. The states are Delhi, Puducherry, Kerala, Tamil Nadu and Chandigarh. EDI in this group varies from 0.709 in Chandigarh to 0.767 in Delhi. Uttarakhand, Andhra Pradesh, Maharashtra, Punjab, Karnataka, Gujarat and Himachal Pradesh are placed in the third cluster with an EDI between 0.61 to 0.70. All the states including the top ranking states should analyse all the indicators used in EDI computation district-wise, and within a district,

“Even the five top ranking states are not perfect in case of all the four sets of indicators as reflected in individual EDI values. The states are Delhi, Puducherry, Kerala, Tamil Nadu and Chandigarh.”

block-wise which should definitely be followed by adopting appropriate strategies without which neither their overall ranking nor status of universal elementary education in the state are expected to improve. Variables found to have higher weightage than others should be accorded the top most priority while adopting strategies in the year that follows. Some of such variables are:

Primary Level : Percentage of schools without drinking water facility, percentage of schools with common toilet, percentage of female teachers, pupil-teacher ratio, percentage of schools with PTR above 60, percentage of teachers without professional qualification, GER, dropout rate, and students passing with 60 percent and above marks in Grade IV/V; and

Upper Primary Level : Ratio of primary to upper primary schools/sections, student-classroom ratio, schools with SCR 60 and above, percentage of schools with girls' toilet, percentage of female teachers, percentage of single-teacher schools, schools with less than 3 teachers, GER and students passing with 60 percent and above marks in Grade VII/VIII.