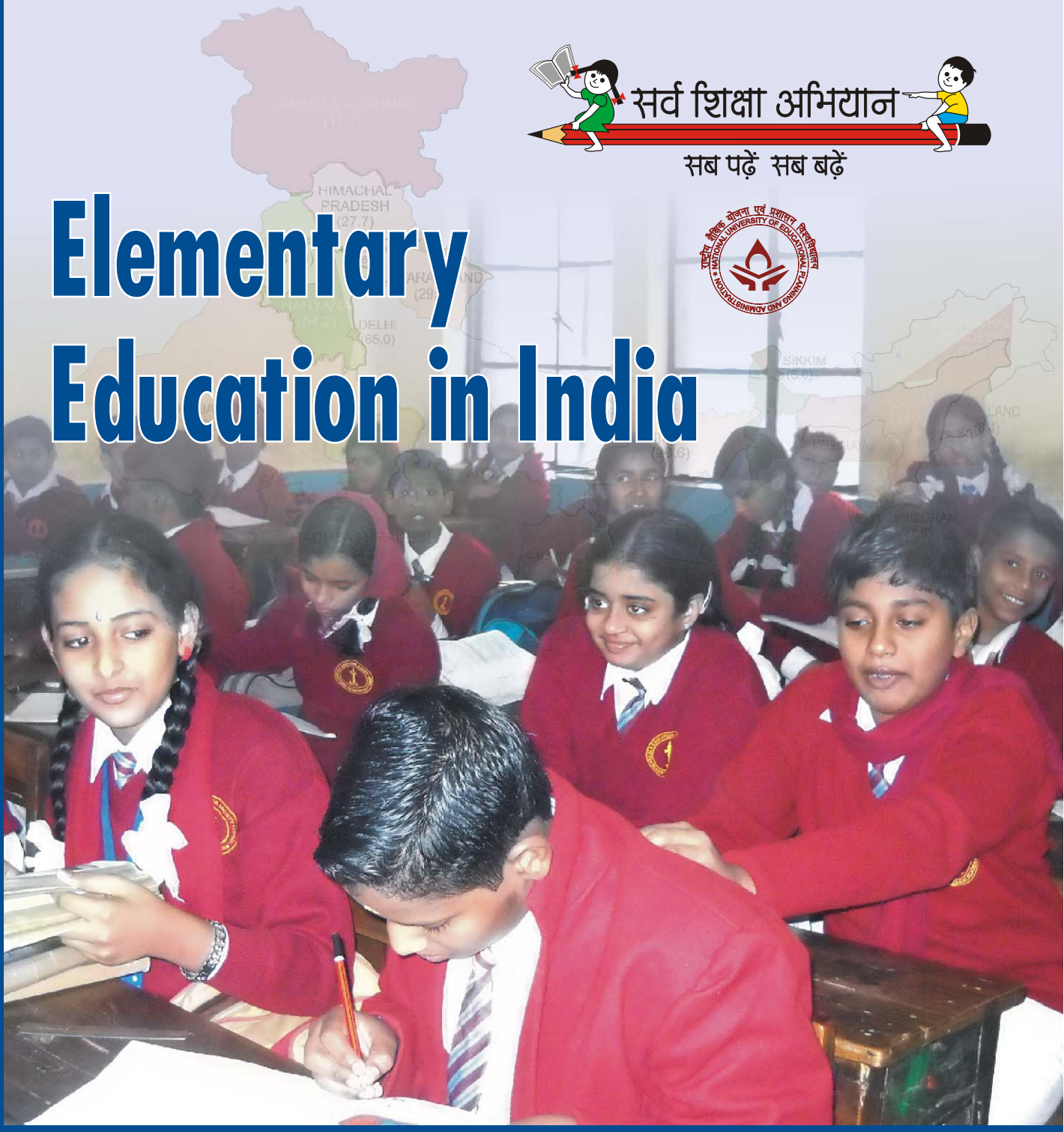
Analytical Report 2008-09

सर्व शिक्षा अभियान

सब पढ़ें सब बढ़ें

Elementary Education in India



Progress towards UEE

Arun C. Mehta

The data presented and indicators constructed in the document are entirely based upon the data as received from the States & UTs as on 30th September, 2008. The views expressed and conclusions reached are that of the author and should not be attributed to the Goverment of India or to NUEPA.

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सत्यमेव जयते

अंशु वैश्य
सचिव
ANSHU VAISH
SECRETARY

भारत सरकार
मानव संसाधन विकास मंत्रालय
स्कूल शिक्षा और साक्षरता विभाग
नई दिल्ली – 110 001
Government of India
Ministry of Human Resource Development
Department of School Education & Literacy
124 'C' Wing, Shastri Bhavan, New Delhi-110 001
Tel.: 23382587, 23381104, Fax: 23387859
E-mail: secy.eel@nic.in

FOREWORD

Development of a sound information system is critical for successful monitoring and implementation of any programme, particularly in social sectors. Design of a school information system has, therefore, been accorded priority from the very beginning of the District Primary Education Programme, as a result of which the District Information System for Education (DISE) was developed by the National University of Educational Planning and Administration (NUEPA), New Delhi. When *Sarva Shiksha Abhiyan* (SSA) was launched in 2001, not only was the coverage extended to all States & Districts of the country, its scope was also expanded to the entire elementary level of education. I am confident that DISE will play an important role in monitoring the *Right of Children to Free and Compulsory Education Act, 2009* in years that follow.

I am happy to note that DISE has become a regular source of information on all aspects of elementary education and, through it, information is available at all disaggregated levels such as school, cluster, block, district, state and national level. NUEPA used to bring out a set of eight annual publications including *'District and State Report Cards', 'Elementary Education in Rural and Urban India', 'DISE Flash Statistics including Educational Development Index', and 'Elementary Education in India: Progress towards UEE, Analytical Reports & Tables',* which data-users and researchers found very useful. I am sure that anyone interested in the Indian education system will find the present publication a valuable resource.

The year 2010 is special for DISE because its project, *www.schoolreportcards.in* has received two National Awards: E-Governance 2010 (Department of Administrative Reforms and Public Grievances, Ministry of Personnel, Public Grievances and Pensions, GoI) and eINDIA 2010 (Department of Information Technology, Ministry of Communication & IT, GoI) and also Manthan Award South Asia 2010. I congratulate all those involved in the process of strengthening EMIS in the country.

I thank NUEPA, especially Dr. Arun C. Mehta, Professor and Head, Department of EMIS and entire DISE team, for bringing out the present publication. I also thank UNICEF, Delhi, for consistently supporting EMIS activities since 1995.

(Anshu Vaish)

राष्ट्रीय शैक्षिक योजना एवं प्रशासन विश्वविद्यालय
(भारत सरकार द्वारा विश्वविद्यालय अनुदान आयोग के अधिनियम 1956 की धारा 3 के अंतर्गत घोषित)
17-बी, श्री अरविंद मार्ग, नई दिल्ली 110 016

NATIONAL UNIVERSITY OF EDUCATIONAL PLANNING AND ADMINISTRATION
(Declared by the Govt. of India under Section 3 of the UGC Act, 1956)
17-B, Sri Aurobindo Marg, New Delhi 110 016

Tel. 26515472, 26853038
Fax 91-011-26861882 *E-mail* rgovinda@nuepa.org *Website* www.nuepa.org

R. Govinda
Vice-Chancellor

From the Vice-Chancellor's Desk

I am happy to observe that the process of strengthening EMIS initiated in 1995 has covered all the districts and states of the country and MIS Units have been established at both these levels and similar units are being established at the block level. The time-lag in availability of educational statistics has come down to less than a year at the national level and only few months at state and district levels. I am confident that DISE would play an important role in monitoring the implementation of *Right to Education Act.* In fact, the data capture format and information collection processes have already been suitably modified.

Besides launching one million plus School Report Cards, a set of eight publications exclusively based on the DISE data are being brought out by the National University each year. It is a great pleasure for me to present (a) DISE Flash Statistics; (b) Elementary Education in India: Where Do We Stand; District & State Report Cards, (c) Analytical Report & Analytical Tables, and (d) Elementary Education in Rural & Urban India which together encompass different aspects of universalisation of elementary education for the past more than eight years.

I take this opportunity to congratulate everyone involved in strengthening of MIS at various levels and for winning three prestigious National Awards (e-Governance, eINDIA and Manthan South Asia) in 2010. I thank the DISE team led by Prof. Arun C. Mehta for bringing out this publication. I hope that researchers, policy makers, administrators and planners will find the publication both informative and useful.

(R. Govinda)

New Delhi
March, 2011

Acknowledgements

For the last several years, NUEPA has been actively involved in strengthening Educational Management Information System (EMIS) in the country. The *Analytical Report 2008-09* is based on the data received from all the 35 States and Union Territories of the country. The publication presents not only the data up to elementary level but also brings in many new dimensions of elementary education into focus. It incorporates data on children with disabilities, examination results, mediums of instruction, students' flow including transition and retention rates, teachers, utilization of school development and TLM grants, and many other parameters on which not much information is available from other sources.

The *Analytical Report/Tables* is based on the data received from as many as 1.29 million schools spread over 633 districts across 35 States & UTs. The study of this magnitude cannot be completed without the active involvement and participation of the EMIS professionals at the national and sub-national levels. I am thankful to all the State Project Directors, the state level EMIS coordinators and district level programmers and data entry operators for timely supply of data.

I take this opportunity to thank UNICEF, Delhi, especially Ms Urmila Sarkar, Chief (Education) for consistently supporting EMIS activities ever since the inception of DISE and Ms Anita Kaul, Additional Secretary, Department of School Education & Literacy, Government of India, who played a crucial role in facilitating the implementation of DISE in various states. The contribution of Shri P.K. Tiwari, Director (SE & L), is also gratefully acknowledged.

I am thankful to Prof R. Govinda, Vice-Chancellor, NUEPA, for guidance, encouragement and consistent support to DISE activities.

The contribution of Shri Naveen Bhatia, Computer Programmer and Shri Shalender Sharma, Chief Consultant, TSG (Ed. CIL), in database management, is gratefully acknowledged.

I am also thankful to Shri P. N. Tyagi for creating maps and Ms Shakun Sethi and Ms Aseela M for efficient assistance and colleagues in the Publication Unit, especially Shri Pramod Rawat, Deputy Publication Officer and Ms Sheeja Biju, Project Publication Officer (DISE), for their keen interest in timely bringing out the publication.

We are encouraged by the enormous number of comments received from data users and hope that the present publication will also be received well by education planners, policy formulators and researchers. Any suggestion for improvement is most welcome.

Arun C. Mehta
arunmehta@nuepa.org

Disclaimer

Raw data presented in the document or used for calculating indicators are essentially based on data provided by the States and UTs through annual data collection (as on 30th September 2008) under SSA (DISE). NUEPA is committed to provide professional and software support to all States and UTs as well as for dissemination and analysis of data as it is provided by the individual States and UTs.

In no way, NUEPA is involved in data collection as such and therefore the accuracy and truthfulness of the data rest with the States/UTs. The State Project Directors have certified that data is free from errors and inconsistencies and hence may be merged into the national database maintained by NUEPA, New Delhi.

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Abbreviations

AS	:	Alternative Schooling
Avg	:	Average
BAS	:	Baseline Assessment Studies
BRC	:	Block Resource Center
CRC	:	Cluster Resource Center
DIET	:	District Institute of Education and Training
DISE	:	District Information System for Education
DoR	:	Dropout Rate
DPEP	:	District Primary Education Programme
DRC	:	District Report Cards
Ed. CIL	:	Educational Consultants India Limited
EGS	:	Education Guarantee Scheme
EMIS	:	Educational Management Information System
GoI	:	Government of India
Govt.	:	Government
GER	:	Gross Enrolment Ratio
GPI	:	Gender Parity Index
Hr.	:	Higher
M.A.	:	Master of Arts
M. Phil	:	Master of Philosophy
MHRD	:	Ministry of Human Resource Development
NCERT	:	National Council of Educational Research and Training
NER	:	Net Enrolment Ratio
NUEPA	:	National University of Educational Planning and Administration
No.	:	Number
NSSO	:	National Sample Survey Organisation
OBC	:	Other Backward Class
ORC	:	Other Reserved Class
PAB	:	Project Approval Board
Ph.D.	:	Doctor of Philosophy
P+UP+Sec./Hs.	:	Primary with Upper Primary & Secondary/Higher Secondary

P + UP	:	Primary with Upper Primary
P. only	:	Primary only
PR	:	Promotion Rate
PTR	:	Pupil-Teacher Ratio
Pvt.	:	Private
RTE	:	Right to Education
RR	:	Repetition Rate
Recd	:	Received
SC	:	Scheduled Castes
SCR	:	Student-Classroom Ratio
SCERT	:	State Council of Educational Research and Training
SDG	:	School Development Grant
Sec.	:	Secondary
SRC	:	State Report Cards
SSA	:	Sarva Shiksha Abhiyan
ST	:	Scheduled Tribes
TLM	:	Teaching Learning Material
TR	:	Transition Rate
TSG	:	Technical Support Group
U. Prim./U.P	:	Upper Primary
U.P. Only	:	Upper Primary only
UEE	:	Universalisation of Elementary Education
UP + Sec/Hs.	:	Upper Primary with Secondary/Higher Secondary
UPE	:	Universalisation of Primary Education
KGBV	:	Kasturba Gandhi Balika Vidyalaya

Executive Summary

1. Introduction

1.1 The National University of Educational Planning and Administration has created a comprehensive database on elementary education in India known as District Information System for Education (DISE), under one of its most prestigious projects. The project covers both primary and upper primary schools/sections of all the districts of the country. The MIS Units are now operational both at the district and state levels and are equipped with necessary hardware and software. A number of states are now in the process of setting up of MIS Units at the block level. The DISE software is operational in all the districts of the country and is providing vital information for policy formulation and preparation of district elementary education plans. What is more remarkable about DISE is that it has drastically reduced the time-lag in the availability of educational statistics which is now down from 7-8 years to less than a year at the national level and only a few months at the district and state levels.

1.2 The National University has successfully developed School Report Cards (*www.schoolreportcards.in*) of more than 1.3 million primary and upper primary schools/sections, and is available for five years i.e. 2005-06 to 2009-10. In addition to quantitative information, the Report Cards also provide qualitative information and descriptive reports about individual schools. And, all this information can now be accessed on the click of a mouse. The Report Cards provide the users comprehensive information on all the vital parameters, be it student, teacher or school related variables, in concise, accurate and standard format which is easy to understand and allows meaningful comparisons to be made among schools.

1.3 DISE Users can also download raw data as per their requirement for further empirical studies. All DISE publications, such as 'District and State Report Cards', 'Elementary Education in Rural and Urban India', 'DISE Flash Statistics including Educational Development Index', and 'Elementary Education in India: Progress towards UEE, Analytical Reports', are available at *www.dise.in.* Publications based on DISE data brought out during the last five years have also been provided in the Compact Disk.

1.4 School Report Cards under the Project DISE: A joint project of NUEPA and Department of School Education and Literacy, Ministry of HRD, GoI is the recipient of e-Governance 2010 & eINDIA 2010 National Awards and Manthan Award South Asia 2010.

1.5 Despite significant increase in the number of schools covered, a few schools, are yet to be covered under DISE for which rigorous efforts have been made to reach all such schools. To further improve the quality of data, it has now been made mandatory for all the states to check the data on five percent random sample basis through an independent agency (mostly ICSSR funded institutions and University Education Departments) each year. States are advised to initiate corrective measures in the light of the findings of sample checking of data. In addition, NUEPA has also launched Post Enumeration Survey of DISE data initially in three states, which is likely to be expanded to remaining states in year that follows. All these efforts would not only help in improving the quality of data but would also help in ensuring complete coverage.

1.6 DISE software is now time-tested, user-friendly, menu-driven and error-free software being utilised throughout the country. Efforts are being made to further improve the software and review the existing Data Capture Format which has become important in view of the Right to Education Act.

2 The Present Publication

2.1 A variety of schools and school-related indicators by school categories along with the average of all states covered under DISE in 2008-09, as also the selected indicators for previous years are presented in the present publication. The data presented in the document contain information on hundreds of variables, mostly by school category and wherever necessary by rural and urban areas and management category. Practically, all such indicators on which information is required for formulating reliable elementary education plans are presented in *'ready-to-use form'*.

2.2 The indicators presented in the present document can be divided into the following parts: School and Facility Indicators; Enrolment-Based Indicators; and Teacher-Related Indicators. The major highlights of *Elementary Education in India: Progress towards UEE,* 2008-09 are given in the following sections.

2.3 Brief analysis of Educational Development Index based on DISE 2008-09 data presented in Part V may be used in deciding the future course of investment on elementary education in the country.

3 School-Based Indicators

3.1 With the improved coverage, the number of schools/sections imparting elementary education covered under DISE increased many-fold. From 8,53,601 schools in 2002-03, their number has increased to 11,96,663 schools in 2006-07 and further to 12,50,775 schools in 2007-08 and 12,85,576 schools in 2008-09. Of the total schools, about 87.30 percent schools are located in the rural areas. During the same period, the number of primary schools increased from 6,01,866 to 8,09,108. Category-wise distribution of schools reveals that majority of the schools (62.94 percent) are independent primary schools.

3.2 The increase in the number of schools is also reflected in the ratio of primary to upper primary schools/sections which clearly shows the impact of *Sarva Shiksha Abhiyan* under which a large number of schools have been opened in the recent past. This ratio for the year 2008-09 is one upper primary school/section for every set of 2.27 primary schools/sections compared to 2.41 in 2007-08 and 2.45 schools/sections in 2006-07. It is noticed that in about 16 states, the ratio of primary to upper primary schools/sections is better than the national average of 2.27. Many of the states have the ratio equivalent to almost two, all of which suggests that by and large schooling facilities have been created and are available across the country. Despite significant improvement in the ratio, there are a few states, such as Arunachal Pradesh, Bihar, Meghalaya, Sikkim and West Bengal, where the ratio still needs to be improved significantly.

3.3 Obtaining data from all the private schools is a challenging task. Concerted efforts made by the National University have resulted in a significant increase in the number of such schools covered under DISE over a period of time. This is important to assess the true picture of universalisation of elementary education in the country. As many as 72,886 and 1,77,034 schools in 2008-09 were respectively being managed by the Private Aided and Private Unaided managements. DISE data also suggests that majority of the private schools are unaided schools (70.84 percent). The percentage of government and government aided schools is as high as 86.19 which show that nine out of every ten schools imparting elementary education in the country are funded by the government.

3.4 A significant achievement is that most of the new schools opened in the recent past have a school building. As many as 2,22,534 new schools have been opened since 2002-03 majority of which are located in the rural areas and 89 percent of these schools have been provided a school building. During the period 2002-03 to 2008-09, as many as 1,46,691 primary schools have been opened which is 18.13 percent of total primary schools in the country. More than 86 percent of such schools have been provided school building.

3.5 Not only the number of schools and schools with buildings has increased but the average number of instructional rooms has also increased across the country which is essential for smooth teaching-learning transaction. Irrespective of the school type, schools imparting elementary education across 633 districts in 2008-09 had an average of 4.4 classrooms, compared to 3.8 in 2005-06. However, a significant difference is noticed in average number of instructional rooms in primary schools located in rural areas (2.9 classrooms) and urban areas (4.8 classrooms) and also in government (2.8 classrooms) and private (5.0 classrooms) managed schools. About 72 percent classrooms in primary schools are in good condition and remaining 28 percent need either minor or major repairs.

3.6 Schools imparting elementary education across the country vary in size. There are about 8.74 and 17.11 percent schools which respectively have enrolment between 1-25 and 26-50. In view of there being a large number of small schools, there is a need to have separate programme for these schools. In view of the large number of such schools (about 26 percent of 1. 3 million schools), the National University has undertaken a research study, exclusively based on the DISE data. It is hoped that the outcome of the study will help NUEPA in developing planning methodology for small schools.

3.6 Some of the salient highlights with regard to other school-based indicators are as follows:

3.6.1 The distribution of schools by type of building shows that 71.94 percent primary schools have *pucca* (permanent) building as compared to 6.76 percent having partially *pucca* and another 3.44 percent having *kuchcha* (temporary) building. Efforts should be made to provide all schools a *pucca* school building.

3.6.2 The percentage of single-classroom schools during 2004-05 to 2008-09 declined from 10.39 percent to 7.82 percent. However, the percentage of such primary schools is 11.62 percent. Despite the decline in percentage of single-classroom schools, there number in absolute terms is significant, which needs intervention without delay.

3.6.3 Over a period of time, the student-classroom ratio has shown improvement. On an average about 35 students are sitting in one classroom in primary schools compared to 37 in the previous year. However, in case of primary schools, the student-classroom ratio in states of Bihar and Jharkhand (98 and 57 students per classroom) is still very high.

4. Facility Indicators

4.1 Like number of schools, instructional rooms, ratio of primary to upper primary sections/schools and other indicators, facilities in schools have also improved significantly which is true for physical, ancillary and teaching-learning facilities. Availability of basic facilities in schools may not only attract more children to schools but also help in improving retention rate.

4.2 About 88 percent schools had drinking water facility available in 2008-09 compared to 83 percent in 2005-06. About 50 percent of the total schools had water hand pumps, and 23 percent of schools had tap water facility in school. Like drinking water facility, more schools now have common toilets and separate toilets for girls. About 67 percent schools had common toilets in schools in 2008-09, compared to 52 percent schools in 2005-06; and 54 percent schools in 2008-09 had separate toilets for girls compared to only 37 percent in 2005-06.

4.3 Some of the other major facilities available in schools are:

4.3.1 During the period 2005-06 to 2008-09, the number of schools with computers increased impressively. As many as 1,81,528 schools reported to have a computer, which is 14.12 percent of the total schools. In

absolute terms, Maharashtra has the highest number of schools (34,220 schools, 37.17 percent) with computers. The percentage of primary schools with computers is 5.76 percent compared to 13.96 percent in case of independent upper primary schools.

4.3.2 The percentage of schools with ramps increased significantly from 17.14 percent in 2005-06 to 40.39 percent in 2008-09; this may help in attracting more physically challenged children to schools. Together with enrolment by nature of disability, DISE is perhaps the only source that provides comprehensive information about physically challenged children in schools.

4.3.3 Providing nutritious food to all children under the mid-day meal scheme is one of the ambitious programmes of the government. For the first time, a variable on availability of kitchen-shed in school was added to DISE during 2006-07. In 2007-08, it reveals that 36 percent of schools managed by the government (including aided schools) have kitchen-shed in school compared to 43 percent such schools in 2008-09. The percentage of such schools is 37 and 26 respectively in the rural and urban areas.

4.3.4 The percentage of primary schools having attached pre-primary section increased from 14.27 in 2002-03 to 23.63 in 2008-09. The number of such schools is more in urban areas than in rural areas.

4.3.5 Over a period of time, the number of schools receiving school development and TLM grants increased impressively (mostly government run schools). Compared to 7,24,682 schools that received school development grant in 2003-04, the corresponding figure in 2007-08 was as high as 8,82,745 schools (79.67 percent). The number of schools that received TLM grant has been as many as 7,92,585 (71.53 percent) of all types of schools. Majority of the states have utilized more than 90 percent of these funds.

5. Enrolment-Based Indicators

5.1 With the increased coverage of schools under DISE, enrolment both at the primary and upper primary level of education has also increased significantly. The enrolment increased from 101.16 million in 2002-03 to 131.85 million in 2006-07 and further to 134.38 million in 2008-09. The GER at primary level, based on the DISE data is estimated to be 115.31 percent, corresponding to 98.59 percent NER. A few states are near achieving the goal of universal primary enrolment. Over a period of time, enrolment in upper primary classes has also shown consistent increase. From a low of 47.89 million in 2006-07, it has increased to 53.35 million in 2008-09 (GER 73.74 percent).

5.2 Gender Parity Index (GPI) and percentage of girls' enrolment in primary and upper primary classes reveal that there is consistent improvement both in GPI and girls' share in enrolment. The average of 633 districts in 2008-09 indicates a GPI of 0.94 in primary classes and 0.91 in case of upper primary classes.

5.3 The improvement in girls' enrolment is also reflected in girls share to total enrolment. In primary classes, the share of girls' enrolment in 2008-09 was 48.38 percent compared to 48.22 percent in the previous year. Girls share in total enrolment at upper primary level is 47.58 percent; it was 46.99 percent in 2007-08 and 45.80 percent in 2005-06. The percentage of girls' enrolment in government managed schools was found to be higher than in private managed schools for both primary and upper primary enrolment.

5.4 At the primary level, the share of SC and ST enrolment with respect to total enrolment works out to 19.84 and 11.68 percent respectively. Notably, at all levels, government schools are the main providers of educational needs of both SC and ST children. SC and ST enrolment together had a share of 78.56 and 83.32 percent respectively, in government run primary and upper primary schools. The share of OBC enrolment in the primary and upper primary classes is 42.39 and 41.93 percent respectively which is similar to the same in the previous year.

5.5 During 2006-07 DISE data collection, an attempt was made to collect information on enrolment of Muslim children for the first time. In 2008-09, the percentage of Muslim enrolment at primary level is reported to be 11.03 against 9.13 at upper primary level. The percentage of girls' enrolment is as high as 48.93 (GPI, 0.96) and 50.03 (GPI, 1.00) at primary and upper primary levels. Preliminary analysis of data suggests that there are about 57 districts in the country which have 25 percent or more Muslim students in primary classes. Most of these districts are from the states of Assam, Jammu & Kashmir, Karnataka, Uttar Pradesh and West Bengal.

5.6 Much emphasis is being given to inclusive education. DISE is perhaps the only source that collects information on disabled children in elementary classes on regular basis by nature of disability. In 2008-09, about 1.38 million disabled children were enrolled in elementary classes across the country, of which 1.00 million were in primary and 0.38 million in upper primary classes.

5.7 One of the essential requirements to achieve UEE is to retain students in the education system. The apparent survival rate (Ratio of Grade V to Grade I) improved to 76 percent in 2008-09. This is also reflected in retention rate at primary level which is estimated to be 74 percent.

5.8 With improvement in the number of schools, facilities in schools and enrolment, the dropout rate for cohort 2007-08 indicates an average rate of 8.02 percent in primary grades. A few states have almost achieved the goal of universal retention at primary level. The cohort survival rate (to Grade V) is estimated to 76 percent indicate that a good number of children dropping out in primary classes.

5.9 One of the other important indicators that are essential to achieve UEE is high transition from primary level to upper primary level of education. It has improved significantly from 64.48 percent in 2002-03 to 83.72 percent in 2005-06 but declined slightly to 82.68 percent in 2007-08.

5.10 Learner's achievement is considered as one of the important indicators of quality of education. Examination results at the terminal grades is a proxy indicator of learner's achievement. About 50.20 percent boys and 50.35 percent girls passed Grade IV/V with a score of 60 percent and above, compared to 42.55 percent boys and 43.56 percent girls scoring 60 percent and above marks in Grade VII/VIII; thus showing impressive improvement over the previous years.

6. Teacher-Related Indicators

6.1 Availability of teachers in schools is an important variable for quality education. The total number of teachers in 2008-09 suggests that about 5.79 million teachers are engaged in teaching in schools imparting elementary education in the country. The data also shows appointment of a large number of teachers across the country consequent to the SSA interventions. All the schools in the country now have an average of 2 and more teachers. The all-India average reveals that, on an average, there were 4.5 teachers in a school in 2008-09 that imparts elementary education compared to an average of 3.0 teachers per primary school.

6.2 All schools together had 43.46 percent female teachers. Urban areas had higher percentage of female teachers than the rural areas; this is true for all school types. Irrespective of school types, a significant difference is also noticed in case of female teachers in schools under private and government managements.

6.3 Increase in the number of teachers is also reflected in the pupil-teacher ratio which has shown consistent improvement. PTR, both at primary and upper primary levels, is quite comfortable (primary, 34:1 and upper primary, 31:1) and is below 40:1. However, there are 146 districts in the country which still have a PTR of above 40:1 most of the

districts of Bihar and Jharkhand falls under this category. At primary level, there are only four states which reported a PTR above 40. At upper primary level, Bihar reported a high PTR of 59:1, compared to 55:1 at primary level. In Bihar, it is not only PTR that is high but it has also reported a high student-classroom ratio of 98. With the appointment of a large number of teachers in the state, pupil-teacher ratio is expected to improve in the year that follows.

6.4 There are about 538 thousand contractual-teachers, constituting 9.39 percent of the total number of teachers. About 71, 494 schools have only contractual-teachers. About 48 percent male and 46 percent female contractual-teachers are Graduates and above. About 14.25 percent male and 12.76 percent female contractual-teachers have B.Ed or equivalent degrees.

6.5 The average age of teachers across states suggests that majority of the teachers in primary schools are between 26-45 years, which is also true for other types of schools. The percentage of teachers in the age group 18-25 years across school types has been low but has shown improvement over the previous year; it indicates newly recruited teachers are joining state education system. A little over 4 percent of the total teachers imparting elementary education are expected to retire during the next 2 to 3 years for which process of recruitment needs to be initiated well in advance.

6.6 The percentage of teachers involved in non-teaching assignments has been as low as 8.59 percent which shows that the majority of teachers were not involved in non-teaching assignments during the previous academic year. On an average, a teacher was involved in non-teaching assignments only for 15 days. In rural areas, teachers were involved in such assignments for 14 days compared to 18 days in urban areas.

6.7 DISE data reveals that government is the main employer of both Scheduled Castes and Scheduled Tribes teachers. The share of SC and ST teachers together in government schools is as high as 79.93 percent. As many as 0.71 million SC and 0.55 million ST teachers are engaged in imparting elementary education, respectively representing 12.31 percent and 9.46 percent of the total teachers.

7. Educational Development Index

7.1 Based on the DISE data, an effort has been made to compute Educational Development Index separately for primary and upper primary levels of education as also the composite index for the entire elementary education. The EDIs can play a significant role in assessing progress towards UEE as well as in deciding the future course of investment on elementary education. About 21 indicators were used which were further re-grouped into four sub-groups, namely access, infrastructure, teachers, and outcome indicators.

7.2 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 other 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 values should be critically analyzed. In addition, there is also a need to analyse each indicator separately and identify states that need improvement.

7.3 Even the top ranking states are not perfect in case of all the four sets of indicators which is reflected in individual EDI values. Variables found to have higher weightage than others should be accorded the top most priority while adopting strategies in the year that follows.

8. DISE: Marching Ahead

8.1 Through DISE efforts, information on all aspects of universalisation of education is now available at disaggregated levels which can be used in different ways. The present document has highlighted a number of issues which can be tracked by using DISE data at different levels. Up-to-date information is now available at all desired levels in ready-to-use form. Detailed information is available by school category, management, location, type of schools and wherever necessary, is separately available by gender. The same is also separately available for primary and upper primary levels of education.

8.2 In view of the data now being available at school, cluster, block, district, state and national levels:

8.2.1 Eevidence-based planning should be initiated at desired level.

8.2.2 DISE data now being available over a period of time, trend analysis on areas of concern can be initiated.

8.2.3 Studies on girls participation in educational programmes, enrolment, impact of infrastructure on learner's attainment, pupil-teacher ratio, contractual-teachers, impact of in-service training on classroom transaction, schools with high PTR and students-classroom ratio etc. can be undertaken exclusively based on DISE data.

8.2.4 Individual schools lacking minimum facilities can be identified and tracked by using DISE data.

8.2.5 One of the other important variables available under DISE is grade-wise enrolment and repeaters which can be of immense use in initiating internal efficiency of education system related studies.

8.2.5 In a number of districts, since DISE data is now available over more than five years, studies concerning retention and transition rates can be undertaken.

8.2.6 Perhaps DISE is the only source which disseminates age and grade matrix which can play an important role while planning for school places.

8.2.7 Comprehensive profiles of 5. 8 million teachers are also being maintained under DISE, which can be used for developing meaningful in-service-training programmes.

8.3 DISE is expected to play a pivotal role in the years that follow which has become essential in view of the Right to Education Act for which necessary modifications have been made in DISE Data Capture Format.

8.4 Despite overall improvement, there are a few areas of concern which need to be accorded the top most priority in the following year.

8.4.1 A good number of schools are single-teacher schools despite availability of an average of four teachers per school, all of which need serious intervention. May be rationalization of teachers is the only solution.

8.4.2 Percentage of female teachers has improved but in a few states there number is not satisfactory and hence need improvement.

8.4.3 Process of filling-up of vacant positions of teachers across the country may be initiated immediately.

8.4.4 Quite a good number of schools are left to contractual-teachers to manage school affairs. Studies should be initiated on the functioning of all such schools.

8.4.5 States with high ratio of primary to upper primary schools/sections may like to expand upper primary schooling facilities. All schools imparting elementary education across the country should be provided with minimum essential physical, ancillary and teaching-learning facilities. There are still locations where PTR is not satisfactory and a single-classroom has to accommodate a large number of pupils. Possibilities may be explored to provide additional classrooms to schools having high student-classroom ratio.

8.4.6 The average dropout rate being high at primary level, it needs to be checked, without which neither the goal of universal primary education nor elementary education can be achieved. This is also true for transition from primary to upper primary level of education. For that purpose, reason-specific child-centered strategies need to be adopted.

8.4.7 The quality of education in terms of examination results and learners' attainment across the country is not satisfactory. It may be improved through active participation of teachers. Useful in-service programmes can be of great help in improving classroom transaction. Identification of training needs and review of existing in-service programmes may be helpful in making these programmes more effective.

8.4.8 States may be advised to compute district-specific EDIs and analyse EDI values separately in case of access, infrastructure, teachers and outcome indicators and adopt appropriate strategies.

Strengthening EMIS through DISE Initiatives

Introduction

Free and compulsory education to all children up to the age of fourteen years is a constitutional commitment in India. The Government of India initiated a number of programmes to achieve the goal of Universalization of Elementary Education (UEE), among which the *Sarva Shiksha Abhiyan* (SSA), launched in 2001, is the most recent one. It aimed at achieving universal elementary education of satisfactory quality by 2010. Off late, the parliament has also passed the *Right of Children to Free and Compulsory Education Act, 2009*[1], model rules of which were released recently and the Act came into force with effect from April 1, 2010. Under the Act, every child of the age of six to fourteen years has a right to free and compulsory education in a neighborhood school till the completion of elementary education. Efforts made through the SSA and the Right to Education Act are expected to generate demand for secondary education, in view of which the Government of India has launched the *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA)[2] to improve universal access and quality at the Secondary and Higher Secondary stages of education.

> "The parliament has passed the *Right of Children to Free and Compulsory Education Act, 2009,* model rules of which were released recently and the Act came into force with effect from April 1, 2010. Under the Act, every child of the age of six to fourteen years has a right to free and compulsory education in a neighborhood school till the completion of elementary education"

For successful implementation of any programme in general and educational programmes in particular, effective monitoring and an efficient information system are essential. While the monitoring framework for the SSA is developed separately (through Quality Monitoring Tools and Web Portal), concerted efforts have been made through the District Information System for Education (DISE) towards strengthening the Educational Management Information System (EMIS) for the elementary level of education. The District Elementary Education Plans (DEEP) across the country are being developed primarily based on the data generated though the information system developed for the SSA, i.e. the DISE. Similarly, the National University of Educational Planning and Administration (NUEPA) has also been assigned the responsibility to strengthen the Secondary Education Management Information System (SEMIS) for which it has developed web-enabled software. Detailed data on secondary level of education would reveal new facets of secondary education in the country.

This section of the report deals with the efforts made under the DISE towards developing a school-based information system in the case of elementary level of education covering management and organization of information collection, coverage and flow of information, publications, dissemination and data utilization, as also limitations and major areas of concern. Efforts made to further improve the quality of data through the Post Enumeration Survey (PES) have also been briefly presented.

[1] The Right of Children to Free and Compulsory Education Act, 2009, No. 35 of 2009, Ministry of Law and Justice, The Gazette of India, August 27, 2009, New Delhi.

[2] *Rashtriya Madhyamik Shiksha Abhiyan*: A Scheme for Universalization of Access to and Improvement of Quality at the Secondary and Higher Secondary Stage, Ministry of Human Resource Development, Government of India, New Delhi, 2008.

A number of government and semi-government agencies are involved in the collection of information on educational variables[3] . Among them the Department of Higher Education of the Ministry of Human Resource Development (MHRD), Government of India, is the main agency responsible for the collection of numeric information on a regular basis through block, district and state-specific consolidated data sheets. The MHRD collects information about all the recognized institutions of the country annually with September 30 as the reference date.

The MHRD used to publish state-specific information through its publication, *Education in India* which was later discontinued. The latest available volumes of this publication covering various aspects are: 2001-02, Volume I: Numeric Information; 2000-01, Volume II: Financial Data; and 2007-08, Volume III: Examination Results. However, another publication, though a provisional one, titled *Selected Educational Statistics*, is the latest available for the year 2007-08 which is renamed as *Statistics of School Education*. Selected Educational Statistics with effect from 2007-08 has now two parts, *Statistics of School Education* and *Statistics of Higher and Technical Education*. On the other hand, the National Council of Educational Research and Training (NCERT) also collects information on special variables through its All India Educational Survey, once in every five to eight years with habitation as its unit of data collection. Full results of the Seventh Survey, with September 30, 2002 as its date of reference, were made available in 2007. The basic purpose of collecting information on special variables through the all-India school survey is to provide inputs for formulating the Five Year Plans. The Eighth Survey with September 30, 2009 as its date of reference is underway and it is hoped that results would be available much earlier than in the previous surveys. Neither the MHRD nor NCERT disseminates full set of district-specific data; hence time-series data on key indicators is not available from these sources. However, as has already been mentioned above, state-specific information on key indicators concerning school education is available from the MHRD publications.

"Basic purpose of collecting information on special variables through the all-India school survey is to provide inputs for formulating the Five Year Plans. The Eighth Survey with September 30, 2009 as its date of reference is underway and it is hoped that results would be available much earlier than in the previous surveys"

In addition to the above, the Government of India through the Educational Consultants India Limited (Ed.CIL) and the Indian Market Research Bureau (IMRB), had recently commissioned the second nation-wide survey for estimating the out-of-school children of age group 6-14 years; the first being the one conducted (also by IMRB) in 2005-06. Similarly, a non-government organization, *Pratham*, also conducts a household survey (2010 being the latest one) to estimate the out-of-school children (6-13 years), the facilities in schools and the learning ability of children in rural India[4]. In addition, the Government of India through the Ed.CIL has also commissioned studies on student's attendance, drop-out rates and teacher's absence in primary and upper primary schools in a few select states. Under the SSA, the NCERT also conducted learner's assessment studies, both in the case of primary and upper primary levels of education. It intends to monitor quality of elementary education though a set of formats that it has specially designed for the SSA. Recently, the NCERT has computed Systemic Quality Index (SQI) in Primary Education in India.

In addition to regular sources, a number of semi-government agencies, like the National Sample Survey (NSS) Organization (NSSO), Census of India, and the International Institute for Population Studies (National Family Health Survey), also from time to time collect information on a few educational variables as part of their regular household sample surveys. Recently, the

[3] *Report of the Review Committee on Educational Statistics, Volume I, Ministry of Human Resource Development, Government of India, New Delhi, December 2008.*

[4] Annual Status of Education Report (Rural): 2010, Pratham Resource Center, Mumbai, January 2011.

NSS Organization has conducted a special survey on education through its *Education in India: Participation and Expenditure* series, 64th Round being the latest one which presents data for the year 2007-08[5]. The 2011 Census, which is underway, is also expected to reveal participation of school-age children in educational programmes and also educational attainment of population in general and literates in particular.

Indian education system is one of the largest in the world as it caters to the needs of more than 1,200 million people. In view of its size (190 million children of 6-14 years and 187 million enrolment in Classes 1 to 8), the information system has certain limitations, both administrative (35 States and Union Territories, 600-plus districts, more than 7,000 blocks and 70,000 clusters) and non-administrative[6]. Some of these limitations are: (i) multiple data collection agencies and directorates (primary/ elementary, secondary) involved in data collection and lack of coordination among them; (ii) lack of understanding of the concept and definitions of educational statistics; (iii) lack of adequate, qualified and trained staff at different levels; (iv) problems in distribution and collection of data-capture formats; (v) lack of district-specific time-series data; (vi) time-lag in data; (vii) reliability of education data; (viii) data gaps; (ix) lack of computers at lower levels; (x) creation of new districts (593 during 2001 Census, presently 633 districts) and re-demarcation of boundaries of the existing districts; (xi) poor dissemination and utilization of data; and (xii) lack of accountability at different levels. Notwithstanding these limitations, the school statistics form the basis of planning, monitoring and evaluation of various aspects of education, in general, and primary and elementary education, in particular. The manual system of information collection under the MHRD even does not have a uniform school format. Rather, it has got consolidated sheets at different levels. In view of this, it is not possible to undertake validation of data at any level. The first consolidation of data takes place at the block level and in large blocks in view of a large number of schools; it is not an easy task to consolidate the data manually, especially when officers at this level are generally not properly trained to deal with huge amount of data. The Review Committee on Educational Statistics (2008) has taken note of most of these limitations and has made recommendations accordingly. It has recommended creation of a Central Bureau of Educational Statistics outside the Ministry of Human Resource Development. Further, to develop a unified school education statistics system, the MHRD has recently constituted a committee under the Chairmanship of Vice-Chancellor, NUEPA, to suggest modalities to develop such a system.

"To develop a unified school education statistics system, the MHRD has recently constituted a committee under the Chairmanship of Vice-Chancellor, NUEPA, to suggest modalities to develop such a system"

Sporadic attempts have been made in the past to develop a computerized educational management information system in India. Of these, the efforts made under the District Primary Education Programme (DPEP) and the *Sarva Shiksha Abhiyan* (SSA) are apparently among the most successful ones. Most of the earlier attempts at the Central and State Governments level failed to sustain and as such the overall situation remained a matter of concern. At the time of initiating the District Primary Education Programme (DPEP) in 1994-95, it was felt that a sound information system was essential for successful monitoring and implementation of the programme. It was also realized that to strengthen educational statistical database for planning and management in a decentralized framework, an innovative model was needed.

[5] Education in India: 2007-08: Participation and Expenditure, NSS 64th Round (July 2007 to June 2008), NSSO, Ministry of Statistics and Programme Implementation, GoI, New Delhi, May 2010.

[6] *Education Information System in India its Limitations: Suggestions for Improvement*, Journal of Indian Education, Volume XXIII, No. 2, August, 1997, NCERT, New Delhi and *A Note on Educational Statistics in India,* Journal of Educational Planning and Administration, Vol. VII, No.1, January 1993, New Delhi.

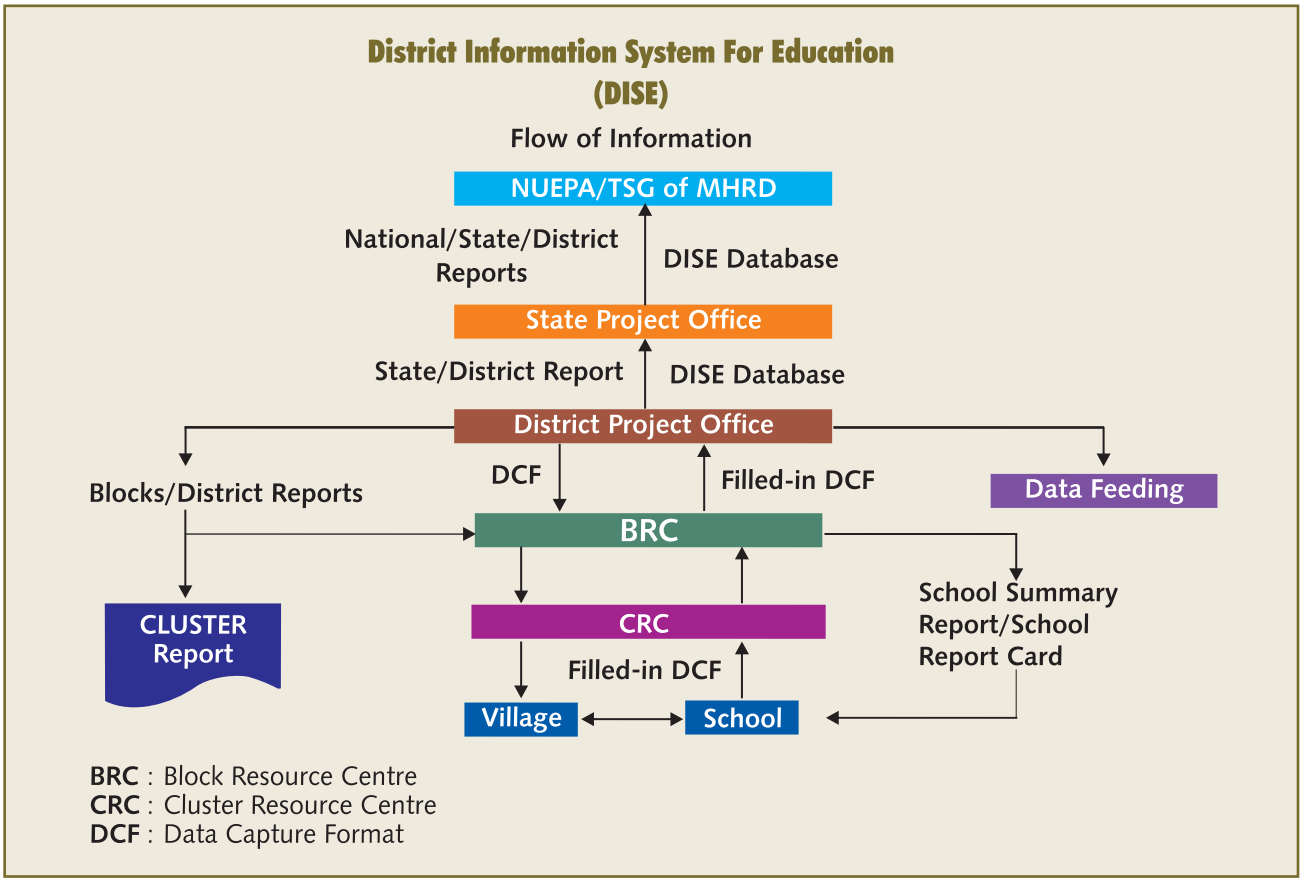

Figure 1.1 : Data Flow Diagram

In the light of the above, the MHRD in 1994-95, as part of the DPEP national endeavour, decided to design and develop a school-based computerized information system, and entrusted the main responsibility to the National Institute of Educational Planning and Administration (NIEPA), New Delhi, (now the National University of Educational Planning and Administration [NUEPA]). In this background, a pilot project for revitalization of educational statistics in India was initiated at NUEPA in 1995 with financial assistance from the UNICEF[7]. The project aimed at examining issues related to identification of data needs, processes and procedures for data collection, developing a framework for data flows and computerization, and facilitating the use of educational indicators in planning, management, monitoring and evaluation. Such a comprehensive and integrated approach was necessitated by the fact that the then existing system could not provide the school level data in time and that it was highly limited in scope and coverage. Similarly, the use of educational statistics for planning and monitoring in the decentralized framework was also minimal. In the absence of school-specific data, there were no systematic checks on the internal consistency of data. Data on many critical variables was either not collected at all or was not processed to facilitate decision-making. In tune with the spirit of the DPEP, the district was selected as a nodal point for collection (each school as a unit of data collection was assigned a unique identification code), computerization, analysis and use of school level data.

The NUEPA designed and developed the core Data-Capture Formats in consultation with experts and the states (flexibility to record additional state-specific variables was also provided). Accordingly, the NUEPA designed the software for implementation at the district level (initially in the case of primary level) and provided

[7] UNICEF is supporting (software development & technical support) DISE activities at NUEPA since 1995. However, publications based on DISE data are fully funded by the Ministry of HRD, Government of India, New Delhi.

necessary technical and professional support to all the DPEP districts and states. The first version (dbase) of the software, named as 'District Information System for Education' (DISE), was released in the middle of 1995. The district level professionals were assisted and trained in the establishment of the EMIS units. The first major review of the DISE software was undertaken during 1997-98 (PowerBuilder/SQL Anywhere). The software was later re-designed in 2001 in the light of requirements of the SSA (PowerBuilder/Oracle). Not only was the coverage of the DISE extended to non-DPEP states but it was also expanded to cover the entire elementary level of education. In view of the state-specific requirements, the NUEPA conducted workshops in 2005 and 2006 and sought suggestions about the DISE format and software in the light of which the DISE format as well as software was modified and made available to all the DISE users across the country during 2007-08 data collection. A thorough revision of the software was again undertaken in 2009 and in the light of the suggestions received from the states, the software were modified and renamed as DISE2010. During this revision a few of the existing variables were modified and a few other were added to the Data Capture Format. Phone/Mobile number of the school Head Master/Teacher, whether Anganwadi Centre is located in or adjacent to school, classroom under construction, land available for additional classroom in school, whether separate room for Head Master available, number of toilets and functional seats, electricity connection available but not functional, total number of functional computers, whether school has Computer Aided Learning Lab (CAL) etc. were either added or modified. In addition, a separate section on mid-day meal scheme was also added to the revised Data Capture Format. The section on repeaters was also revamped to help in computing drop-out rate for all sections of the society. Information on these variables will be collected during 2009-10 DISE data collection. In view of the above changes, a number of additional reports are being added in the software which will help in generating reports at all disaggregated levels. Efforts are being made to further improve the DISE software so as to make it complete user-friendly menu-driven software with emphasis on the report module.

"A separate section on mid-day meal scheme was also added to the revised Data Capture Format. The section on repeaters was also revamped to help in computing drop-out rate for all sections of the society. Information on these variables will be collected during 2009-10 DISE data collection"

The DISE 2001 Software: Main Features

The main features of the DISE 2010 Software are briefly presented below:

- A uniform Data Capture Format is being used across the country. The concept and definitions of educational variables involved therein have been standardized at the national level and are uniformly followed by all districts and states.
- The states/districts have flexibility of adding 'n' number of supplementary variables depending upon their specific requirements on an year-to-year basis and can also specify the type and length of the variable along with validation check in case of each variable. In addition, the states can also specify and add state defined school managements, category, status of school building, teacher category and other such items in the existing categories specified at the national level. No additional software for computerization and analysis of state/district specific data is required.
- Manual aggregation of data is completely replaced by computerized data entry and report generation system.
- The system defines core data on school location, management, rural-urban, enrolment, buildings, equipment, teachers, incentives, medium of instruction, children with disabilities, examination results and student flows.
- The system covers eight years of schooling in all recognized primary, upper primary and primary/

upper primary sections of the secondary and higher secondary schools.

- Detailed data on individual teachers, contractual-teachers, community teachers and their profile, including data on in-service training received, is collected and made available.

variety of school/cluster/block level data with it. The software handles multiple databases at various levels and provides tools of data analysis and presentation.

- Data can be exported to many other formats for statistical and other analyses by users. The DISE presents multi-user and modular system of software

Review Committee on Educational Statistics

A Few Observations

- It must be conceded that the DISE does represent a significant advancement over the earlier systems of data collection, compilation, analyses and publication. In terms of reduction of time-lag and improvement of quality, it represents a phenomenal stride over all other systems.
- The DISE can be said to have emerged as a time-tested 'model' to serve educational statistics. The developments under the DISE can be cited as a 'best practice' in the school education segment. It must become the only system and shall be upgraded to cover Secondary and Senior Secondary stages also.

Report of the Review Committee on Educational Statistics, Volume I, Ministry of Human Resource Development, Government of India, New Delhi, December 2008.

Box 1

DISE: A Complete Transparent System

School Report Cards: Winner of e-Governance & eINDIA National Awards and Manthan Award South Asia 2010
(www.schoolreportcards.in)

The National University of Educational Planning and Administration has created a comprehensive database on elementary education known as, District Information System for Education. The project covers both Primary and Upper Primary schools of all the districts of the country. The DISE has completely eliminated the time-lag in availability of educational statistics which has come down drastically from 7-8 years to less than a year at the national and only a few months at the district and state levels. The NUEPA has developed School Report Cards of more than 1.3 million Primary and Upper Primary schools/sections. The purpose of the School Report Cards is to disseminate information to students, parents and interested community members. The School Report Cards provide users comprehensive information on the vital parameters of student, teacher or school on different variables. It enables to extract concise and accurate information on the above variables, about each school in a standard format. The format is easy to understand and allows meaningful comparisons to be made among schools. In addition to quantitative information, the School Report Cards also provide qualitative information and a descriptive report about individual schools. Basic users can search schools by a Unique School Identification Code and also by State, District, Block, Cluster and Village name. Advanced users can search the database by different categories like school management, enrolment, building status, etc. and extract the information.

Annual Report : 2006-07, Department of School Education and Literacy, MHRD, Government of India.

Box 2

- The states/districts can develop their own large database using 'designer' module and integrate a

design for better management and security of databases. A large number of standardized reports

on school-related variables and performance indicators aggregated at the cluster, block and district levels are generated by the software.

- The DISE ensures two-way flow of information. A School Report Card for each school is generated for sharing with the school and members of the Village Education and School Management Committees, etc.

Major Outcome of the DISE Efforts

- ✓ The DISE software is now operational in all the districts of the country (35 States and UTs) and is providing vital information for preparation of district elementary education plans annually.
- ✓ Through concerted efforts, the MIS Unit is now made operational both at the district and state levels and is equipped with necessary hardware and software. Provisions have now been made to decentralise the data entry to the level of block for which a MIS Co-ordinator and necessary hardware and software will be provided under the SSA to all the blocks of the country; a few states have already decentralised the data entry at this level.
- ✓ The DISE has eliminated data gaps as comprehensive information is now available on all aspects of universal elementary education at different levels over a period of time.
- ✓ What is more remarkable about the DISE is that it has drastically reduced the time-lag in the availability of educational statistics, which is now down from 7-8 years to about a year at the national level and only a few months at the district and state levels. A number of states take only 3 to 4 months and finish the entire process of data collection, sharing and dissemination which commences on September 30, each year.
- ✓ As part of the DISE activities, District Report Cards on elementary education is being released annually. These contain cross-sectional data on a number of variables at the district level. The State Report Cards are also being disseminated for the last seven years. The Analytical Report containing detailed analysis of the DISE data is also being published annually (see Table A1) which also contains state-specific Analytical Tables.
- ✓ A few states have extended the coverage of the DISE to the unrecognized schools. A study based on the elementary education in the unrecognized schools of Punjab was recently brought out by the NUEPA.
- ✓ Every effort is made to promote the use of DISE data for planning, management and monitoring of the SSA through case studies, orientation and training workshops of educational planners and administrators.
- ✓ It has now become a regular feature to share the DISE data at different levels, every year. At the national level, major findings of the DISE data are being shared every year and the same is also been shared in the Joint Review Mission of the SSA, twice a year.
- ✓ As an online help to users, the DISE group of users is formed on the Internet, which is very active. Users

Table A1
DISE Annual Publications

- Elementary Education in India: Progress towards UEE: DISE Flash Statistics
- Elementary Education in Rural India: Analytical Tables
- Elementary Education in Urban India: Analytical Tables
- Elementary Education in India: Where do we stand?, District Report Cards, Volume I
- Elementary Education in India: Where do we stand?, District Report Cards, Volume II
- Elementary Education in India: Where do we stand? State Report Cards
- Elementary Education in India: Progress towards UEE; Analytical Report
- Elementary Education in India: Progress towards UEE, Analytical Tables
- Compact Disk containing DISE Publications

post problems of common interest to the group for their solutions. Off late, another web-enabled group of SSA/DISE/MIS users (SSA India) has been created which is also very active and has around 800 member-users involved in DISE activities at the state, district and block levels.

- ✓ Official website of the DISE *(www.dise.in)* has been developed and is being updated frequently. District Report Cards and raw data in case of each district covered under the DISE are uploaded along with other DISE publications for the last more than seven years. In addition, all the DISE publications are also available to users in a Compact Disk.

coverage of the DISE in their states. And a few others have decided to have the DISE as the only source of information so far as elementary level of education is concerned. As a follow-up of the Review Committee on Education Statistics, the Ministry of HRD has recently constituted another committee to suggest modalities to develop a unified system for school education statistics.

Though over a period of time, utilization of the DISE data has been improved immensely (see www.dise.in), which is also reflected in the District Elementary Education Plans developed annually under the aegis of *Sarva Shiksha Abhiyan,* yet there is still a

A few Supplementary Variables used by the States & UTs

- School Category: EGS and AIE
- VEC bank account number
- VEC Chairman name
- Room for computer
- Area of school
- Land area for construction
- Whether on deputation in case of teachers
- Basic pay of teacher
- Whether the school is having Head Master's room
- Teacher is working in same school since (year),
- Has teacher received computer training?
- Number of additional classrooms sanctioned and completed
- Average daily attendance
- Whether cooking is done by self-help group
- State-specific incentives
- Address and phone number of school
- Whether the school is model school, etc.

Box 3

- ✓ The Government of India has recently constituted a committee to review educational statistics (including DISE activities), report of which was made available in December 2008 (see Box 1). The Review Committee has recommended expansion of the DISE from elementary to secondary and higher secondary levels of education. It has also recommended that the DISE should become the only source of statistics on school education in the country. In fact, a few states on their own have already expanded the

scope for further improvement. Concerted efforts have been made to create demand for the DISE data. All the DISE publications have been made available to a large number of university libraries, research and resource institutions, educationists, planners, administrators, policy makers and other data users across the country which has created awareness about the DISE data. Through concerted efforts, it is hoped that demand for the DISE data would further increase in years that follow.

Table A2
DISE 2008-09: Coverage

Sl. No.	State & UT	School Structure		Number of Districts				
		Primary	Upper Primary	2001 Census	Reported DISE Data			
					2005-06	2006-07	2007-08	2008-09
1	Andaman & Nicobar Islands	I-V	VI-VIII	2	2	3	3	3
2	Andhra Pradesh	I-V	VI-VIII	23	23	23	23	23
3	Arunachal Pradesh	I-V	VI-VIII	13	15*	16*	16*	16
4	Assam	I-IV	V-VII	23	23	23	23	23
5	Bihar	I-V	VI-VIII	37	37	37	37	37
6	Chandigarh	I-V	VI-VIII	1	1	1	1	1
7	Chhattisgarh	I-V	VI-VIII	16	16	16	16	16
8	Dadra & Nagar Haveli	I-IV	V-VII	1	1	1	1	1
9	Daman & Diu	I-IV	V-VII	2	2	2	2	2
10	Delhi	I-V	VI-VIII	9	9	9	9	9
11	Goa	I-IV	V-VII	2	2	2	2	2
12	Gujarat	I-IV	V-VII	25	25	25	25	26
13	Haryana	I-V	VI-VIII	19	19	20	20	20
14	Himachal Pradesh	I-V	VI-VIII	12	12	12	12	12
15	Jammu & Kashmir	I-V	VI-VIII	14	14	14	22	22
16	Jharkhand	I-V	VI-VIII	18	22*	22*	22	24
17	Karnataka	I-IV	V-VII	27	27	27	33	33
18	Kerala	I-IV	V-VII	14	14	14	14	14
19	Lakshadweep	I-IV	V-VII	1	1	1	1	1
20	Madhya Pradesh	I-V	VI-VIII	45	48*	48*	48	50
21	Maharashtra	I-IV	V-VII	35	35	35	35	35
22	Manipur	I-V	VI-VIII	9	9	9	9	9
23	Meghalaya	I-IV	V-VII	7	7	7	7	7
24	Mizoram	I-IV	V-VII	8	8	8	8	8
25	Nagaland	I-V	VI-VIII	8	8	8	8	11
26	Orissa	I-V	VI-VII	30	30	30	30	30
27	Puducherry	I-V	VI-VIII	4	4	4	4	4
28	Punjab	I-V	VI-VIII	17	17	19	20	20
29	Rajasthan	I-V	VI-VIII	32	32	32	32	33
30	Sikkim	I-V	VI-VIII	4	4	4	4	4
31	Tamil Nadu	I-V	VI-VIII	30	30	30	30	30
32	Tripura	I-V	VI-VIII	4	4	4	4	4
33	Uttar Pradesh	I-V	VI-VIII	70	70	70	70	70
34	Uttarakhand	I-V	VI-VIII	13	13	13	13	13
35	West Bengal	I-IV	V-VIII	18	20*	20*	20	20
	Total Districts	**-**	**-**	**593**	**604***	**609***	**624***	**633***

* Including bifurcated districts.

Through the DISE Flash Statistics: 2008-09 (released by the Minister of HRD in January 2010), an effort has been made to compute an Educational Development Index (EDI) based on the DISE data and states are ranked accordingly (for details, see Part V). The NUEPA has been computing EDI for the last four years starting 2005-06. To facilitate computation of district-specific EDIs, the NUEPA conducts a National Workshop annually with the aim to orient state level officers towards computation of an EDI. A number of states have computed the district and block-specific EDIs in view of which it is hoped that the EDI will help in deciding the future course of investment on elementary education which has become very important in view of the Right to Education Act.

In addition to the annual publications based on the DISE data (see Table A1), the Union Minister of Human Resource Development released School Report Cards of more than one million primary and upper primary schools/sections (in November 2006) that is based on the DISE data. Besides quantitative information, the Report Cards also provide qualitative information and a descriptive report about individual schools. All that can now be accessed with the click of a mouse *(www.schoolreportcards.in).* Apart from English and Hindi, the school report cards have also been made available in a number of regional languages while the descriptive report has been made available in English as well as in Hindi.

In order to further promote use of the DISE data, of late option of downloading raw data in Excel format, has also been provided to users so that empirical studies based on the DISE data can be undertaken. More than 1,800 users from across the world have been registered for downloading of the raw data and a number of researchers are exclusively working on the DISE data.

In view of the significant achievements of the DISE activities, School Report Cards (*www.schoolreportcards.in*), under the project District Information System for Education (DISE) jointly developed by the National University of Educational Planning and Administration (NUEPA, New Delhi) and the Department of School Education and Literacy, Ministry of HRD, Government of India, has been awarded the prestigious e-Governance 2010 National Award under the Category Special Sectoral Award - Focus Sector - Education. The award is given every year by the Department of Administrative Reforms and Public Grievances, Ministry of Personnel, Public Grievances and Pensions, Government of India. The site is also the winner of eINDIA 2010 National Award (Ministry of Communication & Information Technology, Government of India) and Manthan Award South Asia 2010.

DISE: Coverage

Initially, 42 districts across seven DPEP Phase-I states, namely Assam, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Tamil Nadu, were covered under the DISE. The number of districts covered has gradually increased with the expansion of the DPEP as the districts included under Phase-II and III were also covered under the DISE. At the end of 2001, more than 270 districts spread over 18 states of the country had adopted the DISE. With the launching of the *Sarva Shiksha Abhiyan* in 2001, the scope of the DISE was enlarged to cover the entire elementary level of education, embracing all the districts of the country. Even prior to the SSA, a number of DPEP states expanded the coverage of the DISE to their non-DPEP districts. In 2002-03, the coverage was further expanded to 461 districts across 18 states. However, the coverage was confined only to the DPEP states. During 2003-04, the coverage was further widened to bring in its fold as many as 539 districts (including bifurcated districts) across 25 States and UTs of the country (Table A2).

It was for the first time that seven non-DPEP states, i.e. Chandigarh, Manipur, Meghalaya, Mizoram, Nagaland, Punjab and Tripura adopted the DISE during 2003-04. During 2004-05, four more States and UTs, i.e. Arunachal Pradesh, Delhi, Jammu & Kashmir, and Puducherry were covered under the DISE. By the year 2005-06, all the districts of the country spread over all the 35 States and UTs, had been covered for the first time under the DISE (see Figure 1.2). During 2006-07, the number of districts covered under the DISE further increased to 609 compared to 604 in 2005-06. In 2007-08, as many as 624 districts reported the DISE data which was collected as on September 30, 2007 compared to 633 in 2008-09 as of September 30, 2008.

The Present Publication

The District Report Cards: 2008-09 and the State Report Cards: 2008-09 are being published separately

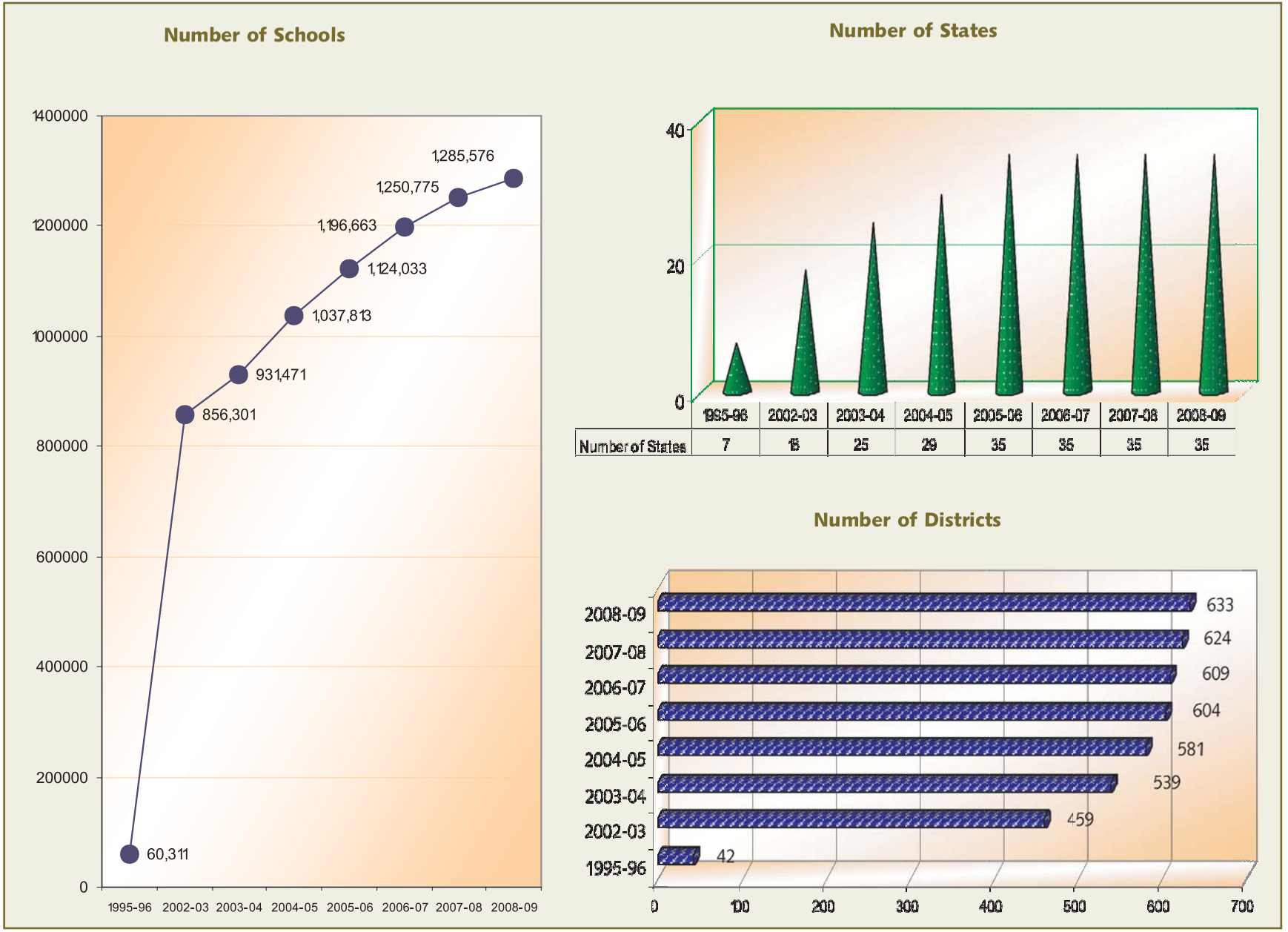

Figure 1.2 : DISE Coverage

Table A3
State Summary: DISE 2008-09 (As on 30th September 2008)

Sl. No.	State/UT	Data Reported From					
		Districts*	Blocks	Villages	Schools	Enrolment**	Teachers
1	A & N Islands	3	10	198	360	56666	3837
2	Andhra Pradesh	23	1128	25733	101303	10910363	508004
3	Arunachal Pradesh	16	78	3187	4583	325238	17341
4	Assam	23	145	21727	68542	5866018	261212
5	Bihar	37	532	39180	67749	18709289	338478
6	Chandigarh	1	20	79	177	141202	5762
7	Chhattisgarh	16	146	22091	49907	4493175	172382
8	D & N Haveli	1	1	70	308	51416	1428
9	Daman & Diu	2	2	37	99	25160	747
10	Delhi	9	61	1151	4930	2647079	90705
11	Goa	2	11	640	1563	173938	8445
12	Gujarat	26	228	19636	39106	7712277	238030
13	Haryana	20	119	7524	18947	3242429	116239
14	Himachal Pradesh	12	118	10075	17360	1065278	63363
15	Jammu & Kashmir	22	200	7137	25415	1907824	124324
16	Jharkhand	24	211	27568	41850	6602944	152168
17	Karnataka	33	202	28397	57517	7808300	267094
18	Kerala	14	164	1877	12352	3384597	132805
19	Lakshadweep	1	3	10	39	10798	667
20	Madhya Pradesh	50	318	54024	132746	15570693	435723
21	Maharashtra	35	378	43289	92053	15918204	581257
22	Manipur	9	35	2076	3954	451557	24173
23	Meghalaya	7	44	6127	11467	586114	38713
24	Mizoram	8	36	811	2826	238245	17263
25	Nagaland	11	47	1280	2575	409491	21237
26	Orissa	30	419	36980	62162	6548485	246217
27	Puducherry	4	6	146	692	182495	10239
28	Punjab	20	142	12850	21875	2827078	103383
29	Rajasthan	33	249	37866	105085	12262731	453163
30	Sikkim	4	9	772	1144	122140	8313
31	Tamil Nadu	30	413	19308	53890	9878621	327391
32	Tripura	4	45	977	3905	683367	30003
33	Uttar Pradesh	70	968	93481	186741	32358301	651338
34	Uttarakhand	13	95	11833	21583	1598472	65531
35	West Bengal	20	484	38419	70771	12957528	272923
	All States	**633**	**7067**	**576556**	**1285576**	**187727513**	**5789898**

* Including bifurcated districts.
** Enrolment as per school structure.

(Elementary Education in India: Where do we stand - District Report Cards 2008-09, Volume I & II; and *Elementary Education in India: Where do we stand - State Report Cards 2008-09)* by NUEPA and the Government of India, New Delhi. In addition, the DISE Flash Statistics: 2008-09, containing state-specific key indicators including the EDI and Elementary Education in Rural India and Elementary Education in Urban India: Analytical Tables for the year 2008-09, were also recently brought out. Thus, the state-wise DISE data is now available for seven years and the district-wise data (most of the districts) for more than nine years. The data is also available on the official website of the DISE, i.e. *www.dise.in*. State-wise number of blocks, villages, schools, etc, from which data is received is presented in Table A3.

The Analytical Report: 2008-09 is divided into two parts: first part *(Analytical Report)* deals with the analysis of data, whereas, the part two presents state-wise information on key indicators *(Analytical Tables)*. The indicators analyzed and tables presented are organised into School and Facility Indicators, Teacher-Related Indicators and Enrolment-Related Indicators. The Tables contain information on a large number of variables, mostly presented by school category and wherever necessary by rural and urban areas, and management category. Indicators required for formulating reliable elementary education plans are presented in a *ready-to-use form*; wherever necessary, time-series data is also presented. The last part of the report (Part V) presents indicators and methodology used in computing EDI and detailed analysis of the outcome with focus on each of the four sets of indicators.

Comprehensive information is presented on all the aspects of universalisation of elementary education. Quality of education can be measured through a variety of indicators among which achievement level of students is the most important one but no information on this aspect is available under the DISE in view of which examination results in the terminal Grades IV/V and VII/VIII are considered as proxy indicator of achievement levels and the same is presented separately in the case of boys and girls.

A number of indicators concerning retaining capacity of the education system have been presented. In addition, an attempt has also been made to compute indicators of internal efficiency, such as input-output ratio, input per graduate and coefficient of efficiency of the education system that are based on the DISE 2007-08 and 2008-09 data a result of which grade-to-grade promotion, repetition and drop-out rate as well as cohort drop-out and survival rates have also been presented state-wise, all of which is crucial in achieving the goal of universal elementary education.

More specifically, the analysis covers the following important areas of elementary education:

a) Number of schools, enrolment, and teachers, classified by school category and school management.

b) Classrooms, categorized into good condition, requiring minor repair, and requiring major repair by school category.

c) Examination results for the previous academic session for the terminal grades at primary and upper primary levels of education.

d) Number of schools by type of building.

e) Gender and caste distribution of regular and *contratual-teachers* and the proportion of teachers undergoing in-service teacher training during the previous year.

f) Distribution of regular and *contratual-teachers* by educational and professional qualifications and by school category.

g) Enrolment by school category: total, Scheduled Castes, Scheduled Tribes and Other Backward Class and Muslim minority, sex-wise enrolment of children with disabilities at primary and upper primary levels and percentage of under-age and over-age children in primary and upper primary classes.

h) Performance indicators in terms of school category: ratio of primary to upper primary schools/sections percentage of female enrolment, gender-parity index; schools with attached pre-primary classes, apparent survival rate at primary level, dropout and retention rates, and transition rate from primary to upper primary level; and

i) Quality indicators according to category of schools: availability of drinking water, common toilet, and girl's toilet in school, teacher-pupil ratio, single-teacher schools, students-classroom ratio, etc.

The main indicators presented in the Analytical Report have been derived by using the following illustrative formulae. The formulae are given for schools in the primary category only. The same method is applied for other categories and classification groups.

1. % Single classroom schools = $\frac{\text{Primary schools having single classroom}}{\text{Total primary schools}} \times 100$

2. % Single teacher schools = $\frac{\text{Primary schools with single teacher in position}}{\text{Total primary schools}} \times 100$

3. % Schools with SCR ∅60 = $\frac{\text{Primary schools having student classroom ratio ∅60}}{\text{Total primary schools}} \times 100$

4. % Schools with pre-primary schools = $\frac{\text{Primary schools having pre-primary sections}}{\text{Total primary schools}} \times 100$

5. % Schools with common toilet toilet = $\frac{\text{Primary schools having common toilet}}{\text{Total primary schools}} \times 100$

6. % Schools with girls' toilet = $\frac{\text{Primary schools having girls' toilet}}{\text{Total primary schools}} \times 100$

7. % Enrolment in government schools = $\frac{\text{Enrolment in primary schools having Education Department, Local Body, Tribal Welfare Department \& others as school management}}{\text{Total primary schools}} \times 100$

8. % Enrolment in private schools = $\frac{\text{Enrolment in primary schools having private aided and private unaided as school management}}{\text{Total enrolment in primary schools}} \times 100$

9. % Enrolment in single-teacher schools = $\frac{\text{Enrolment in primary schools having single teacher}}{\text{Enrolment in total number of schools having primary category}} \times 100$

10. % No-female teacher schools (teacher ∅2) = $\frac{\text{Primary schools having teacher ∅2 but no female teacher}}{\text{Total primary schools}} \times 100$

11. % Students in schools without building = $\frac{\text{Enrolment in primary schools having no building}}{\text{Enrolment in primary schools}} \times 100$

12. % Students in schools without blackboard = $\frac{\text{Enrolment in primary schools having no blackboard}}{\text{Enrolment in primary schools}} \times 100$

13. % Under-age & over-age children = $\frac{\text{Enrolment in Grades I-V below '6' \& above '11' years}}{\text{Total enrolment in Grades I-V}} \times 100$

14. % SC enrolment = $\frac{\text{Enrolment of SC in primary classes}}{\text{Total enrolment in primary classes}} \times 100$

15. % SC girls to SC enrolment = $\frac{\text{Enrolment of SC girls in primary classes}}{\text{SC enrolment in primary classes}} \times 100$

16. % ST enrolment = $\frac{\text{Enrolment of ST in primary classes}}{\text{Total enrolment in primary classes}} \times 100$

17. % Muslim enrolment = $\frac{\text{Enrolment of Muslim minority in primary classes}}{\text{Total enrolment in primary classes}} \times 100$

18. % ST girls to ST enrolment = $\frac{\text{Enrolment of ST girls in primary classes}}{\text{ST enrolment in primary classes}} \times 100$

19. Pupil -Teacher Ratio (PTR) = $\frac{\text{Total enrolment in schools of primary category}}{\text{Total teachers in schools of primary category}}$

(Contractual-teachers have been included while calculating PTR)

20. Student-Classroom Ratio (SCR) = $\frac{\text{Total enrolment in primary schools}}{\text{Total classrooms in primary schools}}$

21. % Schools with Ω50 students in Grades I – IV/V = $\frac{\text{Number of primary schools having enrolment Ω50 in Grades I – IV/V}}{\text{Total primary schools}} \times 100$

22. % Schools with PTR ∅100 = $\frac{\text{Total primary schools having PTR ∅100}}{\text{Total primary schools}} \times 100$

23. % Female teachers = $\frac{\text{Total female teachers in primary schools}}{\text{Total teachers in primary schools}} \times 100$

(Contractual-teachers have been included while calculating this indicator)

24. % of Primary schools established = $\frac{\text{Total primary schools established since 1994}}{\text{Total primary schools}} \times 100$

(The denominator excludes those schools for which year of establishment is not given)

25. Flow Rates

(a) Promotion Rate

$$(P^t_g) = \frac{P_{g+1}^{t+1}}{E_g^t} \times 100$$

where

P_{g+1}^{t+1} = Number of students promoted to Grade 'g+1' in year 't+1', and

E_g^t = Total number of students in Grade 'g' in year 't'.

(b) Repetition Rate

$$(r_g^t) = \frac{R_g^{t+1}}{E_g^t} \times 100$$

where

R_g^{t+1} = Number of repeaters in Grade 'g' in year 't+1'

(c) Dropout Rate

$$(d_g^t) = \frac{D_g^t}{E_g^t} \times 100$$

where

d_g^t = Number of student's dropping out from Grade 'g' in year 't'

(The flow rates have been computed by using the enrolment and repeaters data in schools which are common in both the years, i.e. 2007-08 and 2008-09.)

(d) Transition Rate (TR)

$$TR = \frac{E_{g+1}^{t+1}}{E_g^t} \times 100$$

where

E_{g+1}^{t+1} = New entrants into Grade V/VI in year 't+1' and

E_g^t = Enrolment in Grade IV/V in year 't'

(e) Retention Rate (RR)

$$RR = \frac{\text{Enrolment in Grade IV/V in year 't' – Repeaters in Grade IV/V in year 't'}}{\text{Enrolment in Grade I in year 't – 3'/'t – 4'}} \times 100$$

26. Average promotion, repetition and dropout rates present average of these rates in primary classes and are calculated by using the standard methods.

27. Gender Parity Index (GPI) $= \frac{\text{Girl's enrolment in primary grades in year 't'}}{\text{Boy's enrolment in primary grades in year 't'}}$

28. Ratio of Primary to Upper Primary Schools/Sections $= \frac{\text{Total number of primary schools/sections in year 't'}}{\text{Total number of upper primary schools/sections in year 't'}}$

29. Gross Enrolment Ratio (GER) $= \frac{\text{Total enrolment in Grades I-V}}{\text{Population of age 6-11 years}} \times 100$

30. Net Enrolment Ratio (NER) $= \frac{\text{Enrolment, Grades I-V/6-11 age group}}{\text{Population of age 6-11 years}} \times 100$

31. Input per graduate presents average number of years an education system is taking in producing primary graduates that is based on the *Reconstructed Cohort Method* by assuming that no child will repeat a grade more than three times and existing (2007-08) grade-to-grade promotion, repetition and drop-out rates would remain constant throughout the evolution of cohort. Therefore, the improvement/change in flow rates over the previous year is expected to be reflected in the efficiency indicators.

32. In-service training, school & TLM grants received, examination results, etc., are presented for the previous academic year.

33. Average number of days teachers spent on non-teaching assignments is applicable to only those teachers who were assigned non-teaching assignments and not to all teachers; and

34. Percentage of teachers in different age groups is presented only for teachers under government managements.

Quality of Data

Raw data presented in the document or used for calculating indicators are essentially based on data provided by the States and UTs through annual data collection (as on 30th September 2008) under the SSA, (DISE). The NUEPA is committed to provide professional and software support to all States and UTs as well as for dissemination and analysis of data as it is provided by the individual States and UTs. *In no way, NUEPA is involved in data collection as such and, therefore, the accuracy and truthfulness of the data rest with the States/UTs.* The State Project Directors have certified that data is free from errors and inconsistencies and hence may be merged into the national database maintained by the NUEPA, New Delhi.

Concerted efforts made at different levels over a period of time have helped immensely in improving the quality of DISE data. The data is provided by the State Project/Mission Directors through the Technical Support Group of the Department of School Education and Literacy, MHRD, Government of India. The data was supposed to be first cross-checked and validated at the district and then at the state level. Before that, the Cluster Resource Centre Coordinator is supposed to thoroughly check all the filled-in formats received from the schools falling under his or her jurisdiction. The CRC coordinators are made accountable to ensure that the data is consistent and there are no missing values. However, it has been observed that in a few states, positions of the CRC coordinators are lying vacant affecting the quality of data adversely. The CRC coordinators are also expected to impart training to all the respondents, i.e., School Head Master/Teacher and ensure that data has been collected from all the recognised schools imparting elementary education falling under his/her jurisdiction. The states have also been advised to use the EDUSAT to impart training on filling-up of the DISE format. Perhaps, Haryana was the first state in the country to use the EDUSAT for imparting training across the state. The filled-in formats are also prescribed to check at block (25 per cent) and district level (10 per cent). During the year, NUEPA has also imparted training to grassroots level functionaries involved in DISE operations through the EDUSAT for which it has extensively used the facilities available at IGNOU, New Delhi, all of which is expected to further improve the quality of data. In addition, the Technical Support Group of the SSA also conducted a number of National & Regional Workshops and arranged a number of Video Conferences which were participated by a large number of State and District level MIS/DISE functionaries from across the country.

"Technical Support Group of the SSA conducted a number of National & Regional Workshops and arranged a number of Video Conferences which were participated by a large number of State and District level MIS/DISE functionaries from across the country"

Before the formats were passed on to the block level from the cluster level, they were also supposed to ensure that the coverage was complete and to certify that the data was free from inconsistencies. Similarly, consistency module provided in the DISE software was required to run at the district level. After the state was satisfied with the quality and reporting of the data, the data was submitted for dissemination and analysis at the national level. From the national level, feedback on data quality was provided to all the States and UTs, the School Report Cards from the software itself. In addition, as has already mentioned above, the same can also be accessed and printed from the *www.schoolreportcards.in* Procedures for the data validation and verification of sample data capture formats at the district level have been prescribed, and the districts have reported the steps taken by them to ensure quality and reliability of data collection. The DISE software also checks for internal inconsistencies in the data and generates reports for verification by the

Table A4
Recognised and Un-recognised Schools: 2008-09

State	Total Unrecognised Schools	Ratio of Recognised to Unrecognised Schools	Total Enrolment in Unrecognised Schools	Percentage of Enrolment in Unrecognised to Recognised Schools
Andhra Pradesh	5141	1:19	538785	4.94
Assam	2266	1:30	146939	2.50
Haryana	518	1:37	83809	2.58
Orissa	1627	1:38	162141	2.48
Punjab	7496	1:3	978579	34.61
Rajasthan	591	1:178	41298	0.34
West Bengal	1250	1:57	93654	0.72

Note: Number of unrecognised schools from which data is obtained doesn't necessarily mean complete coverage of all unrecognised schools in the state.

district-wise that has helped in improving the quality and consistency of data. It has also been mandatory for all the states to ensure that School Report Cards returned to schools through the Cluster Resource Centre Coordinators and he/she is supposed to discuss the major outcome with the school Head Master/ Teachers, parents, community and others interested in elementary education. In addition, schools are also advised to display School Report Cards and other relevant information periodically on school display board to create awareness in the community at the grassroots level. Provision has been made in the DISE software to print

> "The State Project Office while transferring the data from the district to the state database ensures that the data received from the district is complete and free from inconsistency. Many states have engaged an independent agency for sample checking of data"

District/Block Project Office. The State Project Office while transferring the data from the district to the state database ensures that the data received from the district is complete and free from inconsistency. Many states have engaged an independent agency for sample checking of data. At the national level, data from the State Project Office is received to ensure compliance with various quality control measures.

Despite best efforts, some inconsistencies and missing data are observed at the national level. Though missing items have declined drastically, a few schools have not responded to all the classificatory variables like management, year of establishment, rural/

Table A5
Sample Checking of DISE Data: 2008-09

Sl. No.	State/UT	Number of Districts	Number of Sample Districts	Number of Sample Blocks	Number of Sample Schools	Agency Conducted Post Enumeration Survey
1	Andhra Pradesh	23	3	-	535	National Institute of Rural Development, Hyderabad
2	Arunachal Pradesh	16	2	10	29	SSA Monitoring Institute, Rajiv Gandhi University, Itanagar
3	Assam	27	4	26	352	SCORPION, Guwahati
4	Bihar	37	6	102	644	Chandragupt Institute of Management, Patna
5	Delhi	9	1	-	64	Society for Applied Research in Education and Development, Delhi
6	Gujarat	25	4	36	306	Centre of Advanced Study in Education, Baroda Maharaja Sayajirao University of Baroda, Vadodara
7	Himachal Pradesh	12	2	15	106	SGI Enterprises, Singrauli, Shimla
8	Jammu and Kashmir	14	2	-	149	Directorate of Economics and Statistics, Srinagar
9	Jharkhand	22	5	14	643	Midstream Marketing and Research Private. Limited, New Delhi Marketing & Research Pvt. Ltd., Neb Sarai, New Delhi
10	Lakshadweep	1	1	-	All schools	Lakshadweep Sarva Shiksha Abhiyan State Mission Authority, Kavaratti
11	Madhya Pradesh	50	4	12	447	Madhya Pradesh Institute of Social Science Research, Ujjain
12	Manipur	9	2	8	47	Institute of Social Work and Research, Manipur
13	Maharashtra 1	35	1	8	85	Matoshribahuuddeshiya Shikshan Sanstha Amgaon
	Maharashtra 2		1	8	93	DIET, Jalna
	Maharashtra 3		1	3	308	Learning Links, Mumbai
14	Meghalaya	7	7	44	500	Sikkim Manipal University, Shillong Centre, Meghalaya
15	Mizoram	8	1	3	291	Education Department, Mizoram University
16	Orissa	30	3	55	401	Nabakrushna Centre for Development Studies, Bhubhneshwar
17	Punjab	20	20	141	1520	M/s Shivom Engineers Associates, Panchkula
18	Rajasthan	33	33	249	4919	Datamation Research Analyst, Delhi
19	Sikkim	4	2	-	30	Wok Jagriti Club United, South Sikkim Society
20	Tamil Nadu 1	30	1	16	100	Department of Education, Alagappa University
	Tamil Nadu 2		1	22	144	Bharatiar University, Coimbatore
21	Tripura	4	2	20	79	Department of Economics, Tripura University
22	Uttar Pradesh1	70	3	31	479	Giri Institute of Development Studies, Aliganj
	Uttar Pradesh2		1	36	312	Govind Balabh Pant Social Science Institute, Allahabad
	Uttar Pradesh3		2	19	216	Centre of Advanced Development Research, Lucknow
23	Uttaranchal	13	13	39	442	Academy of Management Studies, Dehradun
24	West Bengal 1	20	1	-	183	Vishwa Bharati University
	West Bengal 2		1		134	Vishwa Bharati University

urban classification, school category, building status, academic and professional qualifications of teachers, and caste and sex code for teachers. Wherever possible, efforts are made to analyze the data by excluding the no-response values. However, in some cases, the 'no-responses' are explicit from the tables and hence the totals may not match across various tables due to different number of no-responses. In cross-tabulation analysis, the no-responses are excluded. Needless to mention that the percentages, rates and ratios presented in the report are based on the schools that have responded to a particular question and hence may not be applicable to the entire state. Thus, schools by management, their location in rural and urban areas, type of schools, schools by category, enrolment (general, SC, ST, OBC, Muslim and by medium of instructions), pupil-teacher ratio, student-classroom ratio, percentage of girls in primary and upper primary classes and other such indicators should, therefore, be viewed in the light of these limitations.

Over a period of time, the number of schools covered under the DISE increased significantly. During 2008-09, data has been collected from more than 1.3 million schools, with a comprehensive profile of more than 5.79 million teachers also being maintained by the DISE. Despite best efforts, it is still possible that the field agencies might not have covered all the recognised schools imparting elementary education supposed to be covered under the DISE which is specifically true for schools under private managements. A few districts have collected data from these schools while others might not have covered all such schools. Despite significant increase in the number of private schools covered under the DISE (249,920 in 2008-09), field level functionaries reported that data from a few private unaided schools could not be obtained for various reasons. We are trying to reach all such schools and are hopeful that these efforts will be reflected in the following year. In addition, un-recognised (un-registered) schools are not covered under the DISE which may be in large numbers in a few states. However, states like Andhra Pradesh and Punjab have extended the coverage of the DISE to un-recognised schools in their states and collected information by using the DISE Data Capture Format. In the past, the NUEPA assisted states in extending coverage of the DISE to un-recognised schools in these states (see Table A4). However, as per the Right to Education Act 2009, all such schools are required to get the recognition of the authority and submit the self declaration-cum-application for the grant of recognition of school within a period of three months from the commencement of the Act to the concerned District Education Officer regarding compliance of the Act. As per the Act, schools which do not conform to the norms, standards and conditions after three years from the commencement of the Act shall cease to function. In view of the above, information on all such schools is crucial for making arrangements for children in these and other such schools and learning centers. It may also be observed that the DISE is perhaps the most comprehensive source of information on elementary education and can provide all such information which may be required for efficient monitoring of the RTE Act, 2009. Most of the variables required are available under the DISE and a few others are being added in view of the RTE requirements and are expected to be included during the 2010-11 data collection.

It has also been observed that a few schools did not report age and grade matrix which is crucial in determining the status of elementary education. A few states even did not report enrolment of Grade VIII because of composition of school structure in the state. Therefore, enrolment in upper primary classes does not present the complete picture in Grades VI-VIII; thus GER and NER may not give correct portrayal of universalisation in such states and the same may be considered as percentage of children of an age-group enrolled in schools that reported data under the DISE. The remaining children may either be out-of-school or enrolled in un-recognised schools, Education Guarantee Schools (EGS), non-formal education centers and other learning centers not covered under the DISE.

It may be observed that irrespective of the school structure, enrolment ratio at the Primary level is based on Grades I-V and of the Upper Primary level, Grades VI-VIII. The single-age projected population provided by the office of the Registrar General of India has been used in estimating child population. Clearer picture about the size of the child population will emerge once the outcome of the Census 2011 is available. An attempt has also been made to compute flow rates based on DISE data for two years. While analysing the flow rates, it is noticed that in some cases the data is inconsistent; which is also true for apparent survival, retention and transition rate. Indicators in case of such States and UTs have not been reported.

Sample Checking of Data

With the aim of further improving the quality and reliability of data, it has been made mandatory for all the States and UTs to get the DISE data sample checked by an independent agency from the year 2006-07 onwards, for which the NUEPA suggested the sampling methodology and developed a special data capture format for Post Enumeration Survey (PES). It is heartening to note that as many as 23 states initiated random sample checking of data in its very first year, most of which are conducted by the monitoring institutions (ICSSR funded institutions) identified for the states. During 2007-08, as many as 21 states arranged Post Enumeration Survey of the DISE data and in 2008-09, 24 states (see Table A4). However, in a few states the task was entrusted to private agencies. It is hoped that more such institutions will be entrusted with the task of sample checking of the DISE data in the year that follows and the quality of reports would also improve.

In addition, the NUEPA has also launched the PES of the DISE data initially in three states, namely, Andhra Pradesh, Himachal Pradesh and Maharashtra. This is likely to be expanded to the remaining states in a phased manner. All these efforts would not only help in improving the quality of data but would also help in ensuring complete coverage.

The main objectives of sample checking were to judge the accuracy of data and to identify the gaps and weaknesses and seek suggestions regarding remedial measures for strengthening the system and for further improving the quality of data. A sample of 10 per cent of the districts with a minimum of two districts in each state was suggested to be drawn. Depending upon the total number of blocks in a district, a sample of 3 to 4 blocks was recommended for selection. While selecting the sample blocks, due consideration was given to the present status of educational development in terms of literacy rate, rural/urban areas and proportion of SC and ST population; and within each sample block, a random sample of five per cent of the total schools was selected.

A careful examination of reports reveals that only in the case of a few variables, such as enrolment and examination results, the deviation noticed in post-enumeration and the DISE data is found significant and in the case of other variables, such as school particulars and infrastructure facilities, only a little deviation is noticed. The findings of the PES also indicate that the coverage of the DISE is nearly complete. Some of the suggestions provided by the institutions, who conducted the PES, are summarized below:

- School particulars, posts sanctioned, budget release, etc., should be collected from the authorities at block and district levels.
- The VEC and PTA members should be involved in the process of data collection, dissemination and utilization. The BRC and CRC Coordinators should visit the schools frequently.
- Rigorous and quality training should be arranged for teachers and teachers preferably with mathematics background be involved in data collection.
- All the schools covered under the DISE have been provided school report cards. The District Project Coordinators should ensure sharing of report cards with the Head Masters/Teachers, CRC and village community.
- There is the need for frequent monitoring and validation of information at the grassroots level. Nevertheless, scrutiny of the DISE formats, preferably at the cluster level, is needed to be made mandatory.
- The states should be requested to initiate corrective measures in the light of findings and recommendations of the PES. The format of both the DISE and PES should be the same as it would help in getting proper assessment of the quality of data.
- Largely, deviation in data is due to lack of awareness at the respondent's end. There is the need for frequent monitoring and validation of information at the grassroots level.
- In order to ensure complete coverage of all recognized schools, a directory of all such schools in the block should be prepared and cross-checked with the list provided by the office of the Block Education Officer.

Annexure

A Few Select Definitions

Residential School: Residential schools are defined as those schools which have an attached hostel and where the lodging and boarding facilities for students are provided by the school.

Shift School: Where the same premises is used by two schools.

Number of Days School Functioned: Number of days during which the school was open for academic activity during the last academic year.

Number of Academic Inspections: Number of inspections undertaken in the last academic session by an officer of the state government authorised for inspection of schools where a detailed report is written.

Number of Visits by CRC Coordinators: Number of times, the CRC coordinators visited the school for academic support and other purposes during the last academic session.

Status of School Building

- **Private (Rent-free):** A school building is private, if it is owned by an individual, organisation and does not belong to the local body or the government.
- **Private Rented**: Individual, private organisation, the local body or the govenment running the school in a building for which rent is paid.
- **Government**: School building belonging to govenment department, local body or any such agency for education purpose.
- **Government school in a rent-free building**: Government school work from a building/rooms provided by community and no rent is paid for the same.

Type of School Building

- *Pucca*: School building with baked brick walls/stone walls and roof top with slab or wooden/iron girders or tiles is classified as *Pucca*.
- **Partially *Pucca***: School building with baked brick walls or stone walls with corrugated sheet or asbestos sheet or thatched roof top is classified as Partially *Pucca*.
- *Kuchcha*: School building with unbaked brick or mud walls with corrugated asbestos sheet or thatched roof top is classified as *Kuchcha*.
- **Tent**: School is running in a structure covered by canvas cloth and supported by pegs and ropes is considered as tent school.
- **Number of Building Blocks:** School premises consist of a number of independent blocks/structures normally constructed at different points of time.
- **Number of Classrooms used for Instructional Purposes:** Number of classrooms used for running classes in the school premises. In case a big hall has been partitioned with wooden/brick partitions, each partition should be treated as a separate classroom. If two or more classes are held in a room without wooden/brick partition, the room is treated as a single classroom.

Classification of Classrooms

- **Good**: Building which does not require any repairs.
- **Need minor repairs**: Mainly patch work or plastering of the floor or roof or in walls or replacement of broken door or window.
- **Need major repairs**: Major repairs including re-construction or structural change of a wall or a roof.

Playground: Whether a proper playground is maintained in school premises or not.

Teacher Category: The total number of teaching staff is classified into various categories as given below. Against this item option 1-7 are given. Possible options are Head teacher, Acting head teacher, Teacher, Para teacher, Part time teacher, Community teacher, Language teacher, others, no response.

Enrolment: The number of students in the school register as on September 30.

Age in completed years: The age of students is calculated as on September 30 on the basis of the date of birth as recorded in the school admission register.

Repeater: A repeater is one who has been enrolled in the same class for more than one year.