India – Third Elementary Education Project
(Sarva Shiksha Abhiyan - III)

Limited Environment Assessment and Management Framework

Abbreviations

AWP&B	Annual Work Plan and Budget
BoQ	Bill of Quantities
BRC	Block Resource Centre
CSS	Centrally Sponsored Scheme
CWSN	Children with Special Needs
DEO	District Education Office
DFID	Department for International Development (UK)
DIET	District Institute for Education and Training
DISE	District Information System for Education
DPs	Development Partners
DPC	District Program Coordinator
DPO	District Project Office
DPR	Detailed Project Report
DPEP	District Primary Education Program
DSEL	Department of School Education and Literacy
EFA	Education for All
GER	Gross Enrolment Ratio
GIA	Grant in Aid
GoI	Government of India
ICR	Implementation Completion Report
IDA	International Development Association
IFB	Invitation for Bid
IGNOU	Indira Gandhi National Open University
IS	Indian Standards
JRM	Joint Review Mission
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MHRD	Ministry of Human Resource Development
MoU	Memorandum of Understanding
NAS	National Assessment Survey
NCERT	National Council for Educational Research and Training
NCF	National Curriculum Framework

NCTE	National Council for Teacher Education
NER	Net Enrolment Ratio
NGO	Non-Governmental Organization
NIOS	National Institute for Open Schooling
NOC	No-Objection Certificate
NUEPA	National University for Educational Planning and Administration
NSS	National Sample Survey
O&M	Operations and Maintenance
PAB	Project Approval Board
PDO	Project Development Objective
PRI	Panchayati Raj Institutions (local government institutions)
PTA	Parents-Teachers Association
PTR	Pupil Teacher Ratio
PWD	Public Works Department
RI	Regional Institutions
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
SC	Scheduled Caste
SCERT	State Council of Education Research and Training
SEMIS	Secondary Education Management Information System
SFG	Special Focus Group
SIEMAT	State Institute of Educational Management and Training
SIS	State Implementation Society
SMDC	School Management Development Committee
SPO	State Project Office
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
SWAp	Sector-wide Approach
TA	Technical Assistance
TC	Technical Cooperation
TSG	Technical Support Group
UT	Union Territories
WB	The World Bank

Section 1
Project Background and Description

1. Background

The role of Universal Elementary Education (UEE) for strengthening the social fabric of democracy through provision of equal opportunities to all has been accepted since the inception of India as a Republic. The original Article 45 in the Directive Principles of State Policy in the Constitution mandated the State to provide free and compulsory education to all children up to age fourteen in a period of ten years.

With the formulation of National Policy on Education (NPE), 1986/92, India initiated a wide range of programs for achieving the goal of UEE. These efforts were intensified in the 1980s and 1990s through several schematic and program interventions, such as Operation Black Board (OBB), Shiksha Karmi Project (SKP), Andhra Pradesh Primary Education Project (APPEP), Bihar Education Project (BEP), U.P Basic Education Project (UPBEP), Mahila Samakhya (MS), Lok Jumbish Project (LJP), and Teacher Education which put in place a decentralized system of teacher support through District Institutes of Education and Training, District Primary Education Programme (DPEP). Currently the Sarva Shiksha Abhiyan (SSA) is implemented as a Centrally Sponsored Scheme in partnership with State Governments for universalizing elementary education across the country.

2. Sarva Shiksha Abhiyan – About the Program

Sarva Shiksha Abhiyan (SSA) is India's main program for universalizing elementary education. Its overall goals include universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children. SSA provides for a variety of interventions, including inter alia, opening of new schools and alternate schooling facilities, construction of schools and additional classrooms, toilets and drinking water, provisioning for teachers, periodic teacher training and academic resource support, text books and support for learning achievement.

India passed its Right of Children to Free and Compulsory Education (RTE) Act, 2009, which became effective from April 2010, and gave effect to Article 21-A (Eighty-sixth Amendment of the Indian Constitution, 2002) making the provision of free and compulsory education of all children in the age group of 6-14 years one of the Fundamental Rights. The Right of Children to Free and Compulsory Education (RTE) Act, 2009, which represents the consequential legislation envisaged under Article 21-A, means that every child has a right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards. The need to address inadequacies in retention, residual access, particularly of un-reached children, and the questions of quality are the most compelling reasons for the insertion of Article 21-A in the Constitution of India and the passage of the RTE Act, 2009.

SSA has been designated as the implementation vehicle for RTE. The various provisions, including those pertaining to physical infrastructure and related facilities are to be aligned with the legally mandated norms and standards and free entitlements mandated by the RTE Act.

3. Main Achievements of SSA

The SSA interventions have resulted in impressive gains, especially in access and equity.

Over the years there has been significant spatial and numerical expansion of elementary schools in the country. Access and enrollment at the primary stage of education have reached near universal levels.

The number of out-of-school children has reduced significantly. A decade ago, 25% of the world's out of school children were in India - this number has now fallen to below 8%, with over 20 million out-of-school children being brought into school, most in low-income states, and enrolment at the elementary level reaching 200 million. The Net Enrolment Ratio (NER) at the primary level improved significantly from 82% to 99.8% during this period – reaching the MDG target. Gender parity has been achieved and the enrolment shares of SCs and STs have increased relative to their share in the population1. The transition rate from primary (grades 1- 5) to upper primary level (grades 6-8) improved from 75.0% in 2002-03 to 86.6 % in 2011-12. Retention rates in elementary education improved from 32.0% to 54.8% (in states with elementary grades 1 to 8) and from 45.5 % to 80.6% (in states with grades 1-7) over the same time period. The gender gap in elementary education has narrowed and the percentage of children belonging to scheduled castes and tribes enrolled is proportionate to their population.

4. Key Challenges

Despite these gains, education in India faces many challenges. There remains an unfinished agenda of universal education at the upper primary stage. The number of children, particularly children from disadvantaged groups and weaker sections, who drop out of school before completing upper primary education, remains high. The quality of learning achievement is not always entirely satisfactory even in the case of children who complete elementary education.

The main challenge now is to improve pupil attendance and retention, and to focus on learning outcomes, especially for the disadvantaged groups. To achieve this, special efforts are required to enhance social accountability, institutional reform and governance for improved service delivery. In this context, one of the mandates of RTE is that all private schools will provide 25% of its places to children from disadvantaged backgrounds and their school fees will be subsidized by the government.

Some of the other key challenges include the following:

a) ***Low Learning Outcomes:*** Learning outcomes for children in Indian schools are low and the learning trajectories for children who remain in school are almost flat.2. According to the National Achievement Survey (NAS) for grade 5, administered using ITR for the first time in 2009, the national average achievement in mathematics was 46.5%; in language 58.6 %; and in environmental studies 50.3 %.Moreover, the depth of the problem is

[1] 48.4 % SC enrollment against population of 48.5%; 19.80% ST enrolment against population of 16.20%

2 Planning Commission, GOI – 12th Five-Year Plan

illustrated by the variation in test scores; the standard deviations in the average achievement for mathematics, language and environmental studies were 21.3, 18.3 and 20.7 respectively. Research based on scientific method is being juxtaposed with subjective opinion. It is pertinent to note here that moving forward, learning assessment systems need strengthening and triangulation with other assessment sources.

The Annual Status of Education Report (ASER), which uses a different sampling and testing methodology from NAS, indicate that learning achievement has been decreasing over the years since 2010. Reading proficiency has deteriorated; in 2012, 11.6 % of students are unable to read anything compared with 7.7% in 2010.3 A similar trend is observed for arithmetic proficiency. While it is not surprising that the large influx of students has made efforts to improve outcomes more difficult, the fact remains that too many children are not learning what they need to learn. Even India's top schools perform poorly on international assessments.

b) ***Dropouts and Attendance:*** A large percentage of children enter primary schooling but drop out before entering upper primary schooling. The net enrolment rate (NER) at the upper primary level i.e., grades 6 – 8, increased from 50.7% in 2007- 08, to 67.0%, which is still a serious concern.4 Further, dropout rates are higher amongst the marginalized groups and communities such as girls, SC/ST and the Muslim community. There also seems to be a strong correlation between existing literacy levels and student attendance rates.

c) ***Children with Special Needs (CWSN):*** According to the Government of India (GOI), there are over 3.2 million children with special needs, of which only 2.7 million are enrolled in schools. Many Non-Government Organizations, however, argue that the number of CWSN is actually much higher. Under the RTE 2009, addressing the needs of CWSN is a state obligation/mandate. However, there are inter- and even intra-state differences in the measurement, implementation and the understanding of what constitutes inclusive education for these children. Special efforts are needed to provide CWSN scholastic and co-scholastic parity with other children.

d) ***Variations in state performance***. Some of the more educationally backward states such as Bihar, Jharkhand, Madhya Pradesh and Uttar Pradesh register some of the lowest student attendance rates (less than 60.0%). A large proportion of students in these states belongs to economically weak segments of the population, and is prone to migrate on a seasonal basis. Furthermore, strong variations are observed across geographies, indicating that certain states are clearly doing better than the others. For example, NAS results for grade 5 indicate that average achievement score for the state of Manipur was 74.5%, much higher than the 30.5% in the state of Goa. The latest Educational Development Index (EDI,

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3 The percentage of students who are able to read an entire story or at least comfortably read a paragraph from the story reduced by 2.4 percentage points and 2.7 percentage points respectively from 2010 to 2012.

4 DISE: 2011-12

2012-13) released on December 5, 2013, reveal that Bihar, West Bengal, UP, Goa and Assam continue to slide down on the EDI5 and Jharkhand is at the lowest spot at 35. Much could be learned from further examining these stark inter-state differences since these differences can provide useful cross-state learning. There is a clear need to support governments in states with poor achievement scores to help them in developing the requisite capacity to improve internal efficiency in schools as well as the quality of education.

e) ***Weak monitoring and accountability for performance.*** Teacher performance can be judged by a range of measures, including competence, effort and student outcomes. These in turn can be variously measured. Standards for teacher performance need to be simple, understandable and can be monitored. However, as of now, no systematic effort has been made to develop teacher standards in India. Measurement of student performance now has a robust foundation, with the National Council for Educational Research and Training (NCERT) having carried out a national assessment in Class 5 in 2009. However, this assessment methodology has to be extended to other grades and over time. State-level assessments are few and far between, limiting the states' ability to carry out innovative and remedial programs that clearly address gaps in teacher, school, and student performance.

5. Third Elementary Education Project (SSA III)

SSA has been supported by the World Bank, DFID and the EU through a Sector Wide Approach (SWAp). Since 2004, the International Development Association (IDA) has contributed US$1.85 billion to the program, US$500 million in SSA I (2004-07) and US$1.35 billion in SSA II (2008-12). DFID and the European Union (EU) together contributed an additional US$546 million to SSA I and US$375 million to SSA-II.

Continuing its support to Govt. of India's Elementary Education program, SSA III as a project is a Special Investment Lending on a Sector wide (Swap) approach and will finance states' annual work programs and a small number of activities at the national level.

As under Sarva Shiksha Abhiyan (SSA – the elementary education program) I and II, the project will support the whole program and finance a share of the overall program. Financing decisions for Districts and States are made based on the Annual Work Plan and Budget (AWP&B) process which are approved by the Project Approval Board (PAB) of the MHRD, GOI.

The Project's Development Objective is to improve school outcomes of elementary school children through quality-oriented interventions.

6. Programme/Project Interventions

There are some continuing gaps in access in some states which will need to be filled

5 Educational Development Index (2012-13): NUEPA. EDIs are based on parameters like access, infrastructure, student-teacher ratio, teacher training besides outcomes vis-à-vis GER, SC/ST/OBC/Minority enrolment, dropout rates etc.

through minor civil works (for example, to build toilets for girls and additional classrooms to respond to demand), upgrading of schools, annual school grants, transparent merit and need based recruitment of teachers, salaries of teachers and staff for implementation, and provision of textbooks and other teaching learning materials.

The support to SSA III will focus on the key goals of SSA namely: access, equity, quality and institutional reform. However, the shift in activities from SSA II will be seen through three key thrust areas which will be financed under SSA III. These are:

1) Improving quality for enhancing learning outcomes

2) Strengthening monitoring and evaluation for enhanced accountability and

3) Enhancing access and retention for disadvantaged children.

Specific details about the proposed scope and coverage of activities under the two said components are detailed out below:

1) Improving Quality and Enhancing Learning Outcomes

The project will provide special attention to quality improvement with inherent accountability measures through the special components that will inform the SSA program in all its dimensions, including access and equity. The following areas will receive special attention:

Development of grade level learning indicators for students: The project will support, through provision of consulting services and training, the development of grade and subject specific learning indicators to measure children's progress in acquiring expected knowledge and skills at different grade levels. The NCERT will develop the model and illustrative indicators at the national level. While a few states have developed indicators suited to specific state curriculum, the national indicators will be a ready reference for other states to adopt or adapt. These learning indicators will be used as performance standards for all assessment tools supported under the project, at classroom, state and national level.

Early grade reading and mathematics: Children in early grades (1 and 2) should achieve foundational skills in reading and mathematics leading to both improved retention and learning. At the national level, NCERT will develop guidelines and quality standards for early grade learning. Each state will use the national guidelines to develop or extend its own state-specific early grade learning program along with the state academic authority and begin implementation in the 2013-14 academic year. MHRD will monitor implementation, while NCERT will provide capacity building. Specific academic and relevant pedagogical approaches will be followed to develop customized learning assessment tools for grades 1 and 2.

Upper primary math and science learning*:* The grade and subject learning indicators established by NCERT will be used by states in their strategies to improve science and math teaching in upper primary schools. There will be specialized teacher training programs (using appropriately developed special training modules). This will be supplemented by follow up and on-site support through the Block Resource Centers (BRCs) and Cluster Resource Centers (CRCs). Specific approaches have been identified for enhancing math and science teaching standards at the

upper primary level like the use of math and science kits, worksheets, computer-aided learning modules, assignment of projects to students, and setting up of libraries and laboratories.

School leadership development and school performance assessment: To improve management competence of school headmasters and educational administrators, a new National Centre for School Leadership (NCSL) within the National University of Educational Planning and Administration (NUEPA), will be established, through technical assistance. The NCSL will develop a school leadership program and support its implementation in states, including the development of standards and a framework for assessment of school performance in elementary schools. The program has already been initiated in Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Kerala, Mizoram, and Uttar Pradesh, and will be extended to all states during the project period.

Teacher training and provisioning:

The project will also support annual in-service training of teachers, to allow for continuous upgrading of knowledge and teaching skills. This will be done through (i) identification of teacher training needs; (ii) annual review of teacher training packages; (iii) long-term and sustainable plan for preparation of master trainers; and, (iv) research and development for teacher training. Recognizing the importance of providing adequate number of teachers, the project will finance systems that facilitate the (i) achievement of the prescribed Pupil Teacher Ratio (PTR) for each school; (ii) ensuring that no school has a teacher vacancy of more than 10% (through effective redeployment of surplus teachers); and, (iii) provision of subject specific teachers, head teacher and part time instructors for art, health and work education in upper primary schools.

The practice of recruiting at least 50% women teachers will be encouraged as part of the fund arrangement for teacher salary in accordance with the Centre-States fund sharing formula. The project will finance teachers recruited through a process that takes into account the minimum qualifications as laid down by the designated academic authority, namely the Nation Council for Teacher Education (NCTE).

2) Strengthening monitoring and evaluation for improved accountability

Monitoring learning outcomes: The project will support a three tier strategy for assessment of learning outcomes for enhanced accountability, through provision of consulting services, training and learning materials:

- NAS conducted by NCERT: While the technical rigor of the NAS has greatly improved, only one grade (Grade 5) has been assessed with the new methodology. The project will support continued capacity building of NCERT to extend the methodology to other grades and to demonstrate reliability over time for a given grade. Moreover, the next challenge is to promote the use of NAS results for remedial action at the policy level and to improve the teacher education system. This will require new skills in qualitative analysis as well as articulation and dissemination of results. Finally, the project will support expansion of the coverage of NAS to include CWSN in their home and school environment.

- State Learning Achievement Survey (SLAS): While at the national level the NCERT has been conducting NAS, States/Union Territories (UTs) need more disaggregated data on student outcomes at district and sub-district levels for remedial action and corrective measures. States/UTs will be supported, through consultant services and training, in conducting their own SLAS, learning from the experiences of states like Bihar, Gujarat and Tamil Nadu. While the NAS is an important tool for highlighting the national and state level picture, what needs as much focus is assessment and analysis of the learning levels at district and sub-district level. The proposed funds would support this effort, in order to create and strengthen a culture of measuring children's learning across states. School-level classroom based assessments through the further development of Continuous and Comprehensive Evaluation (CCE) of pupils. The project will fund teacher training, technical assistance, and procurement of learning materials to improve classroom processes with approaches that integrate evaluation having child-friendly approaches and efficient record keeping.

- In addition, there will be efforts to strengthen impact evaluation of various aspects of the program. As a first step, the Bank has submitted three proposals to the Strategic Impact Evaluation Trust Fund (SIEF), to conduct rigorous evaluations addressing core issues relating to learning at the elementary level. These evaluations focus on interventions that: (i) build parental and teacher capacity to improve school accountability and learning outcomes; (ii) minimize the learning deficits children of seasonal migrants suffer due to periodic relocation; and (iii) The SSA program will also make available resources to the states for research and monitoring under the Research Evaluation, Supervision and Monitoring (RESM) grant through which the states will undertake quality research and evaluation research activities. These research inputs will also feed into program implementation.

Evolving performance standards for teachers' accountability: NCERT will develop through appropriate provision of training and support, teacher performance standards. NCERT has developed a framework for Performance Indicators for Elementary School Teachers (PINDICS) that is based on norms and standards as enunciated in various studies and statutory orders of the government. (See Annex 2) These performance standards define the criteria expected when teachers perform their major tasks and duties. Under each performance standard there will be specific tasks which teachers are expected to perform- termed as specific standards. These are further delineated as performance indicators that can be used to observe progress and to measure actual result compared to expected result. These performance standards define the criteria expected when teachers perform their major tasks and duties. These are further delineated as performance indicators that can be used to observe progress and to measure actual result compared to expected result. NCERT will also develop and pilot instruments to measure teacher competence under PINDICS. PINDICs will eventually evolve as the framework for effective teacher performance for effective monitoring and benchmarking across the country.

Social accountability: The RTE Act, 2009, supports the concept of social accountability and community participation through its various provisions. Every school must have a School Management Committee (SMC) consisting of

representatives of the local authority, parents and guardians of children at the school and teachers. Three-quarters of SMC members should be parents/guardians, with proportionate representation from weaker sections/disadvantaged groups and 50% should be women. SMCs monitor the working of the school; prepare a school development plan; and, monitor utilization of grants. Continuous capacity building efforts are needed to strengthen SMCs. The project will support strengthening of this grassroots social audit tool for enhancing social accountability to the community for a well-functioning school.

Unified District Education System for Education (UDISE): The project will finance the Educational Management Information System (EMIS) unit that has been established for every district in the country. The school-based information system called the District Information System for Education (DISE) and household survey reports are both key data systems of the EMIS. The project will finance further strengthening and professionalizing data compilation through the DISE for school-based planning. Annual data collected on infrastructure, access, retention, quality, teacher-related issues will feed into planning process, as well as M&E, allowing for informed, data-supported mid-course corrections, as needed. DISE collects data from all types of schools - recognized, un-recognized, government or private. The project will support the implementation and phased roll-out (in academic year 2013-14) of a unified data system, which was developed by MHRD. The Unified DIES (UDISE) was developed to minimize duplication in data collection and limit the multiplicity of agencies collecting data from the same schools. UDISE will now consolidate data across the school education sector covering elementary (Classes I-VIII) and secondary (Classes IX-X) segments.

UDISE systems will surmount concerns that have emerged around inconsistency in data gathering, overlapping of information sources at the upper primary level especially in case of composite schools (upper primary and secondary schools). The nodal agency, NEUPA will take over the responsibility of unified system for collection of school education statistics. State level nodal agencies will be identified to coordinate activities relating to collection, collation and dissemination of data under unified system. Data quality assurance measures will be supported for the strengthening systems for collection of duly filled in data collection formats (DCFs), better checking for errors and missing information, training of teachers, training CRCs in collection of data, and digitalization of report generation to improve data dissemination. Integrated data sets covering all schools at primary, upper primary, secondary and higher secondary levels will be received from all states and hosted at the NUEPA website: schools-www.schoolreportcards.in

Special Focus Districts: The project will finance special interventions for educationally backward districts that are allocated significant SSA Program funds. Low-income states (and within them the majority of the special focus districts) are generally the large spending states and will be provided special attention under the project for addressing concerns of out of school children, enhancing transition (especially for children from special focus groups and migrant children) and for quality improvement efforts. Special focus districts are those with high concentration of the SCs and STs, a large minority population, large number of out-of-school children and high gender gap. Funding priority has traditionally been given to these districts, for providing access, teacher recruitment and special efforts to equity issues.

The project will finance quality improvement efforts especially in the large spending states with large populations of SC/ST and minority children. NUEPA has developed an Educational Development Index (EDI) to track progress of States towards Universal Elementary Education (UEE). The project will finance the strengthening of the EDIs for the district and sub-district levels for effective ranking of states based on their performance on developmental indicators. The ranking will encourage states and districts to improve their performance and focus more attention on both inputs and outputs for better outcomes. EDIs for each district will be taken under consideration when preparing the district AWPBs and their appraisals for more effective targeting of resources to the neediest regions. The project will encourage performance-linked fund releases. An educationally backward district that does not utilize its resources in the manner intended is unlikely to continue to receive funds on a priority basis.

Institutional strengthening at different levels: The project will support institutional strengthening with greater decentralization for autonomy in planning. The quality of the planning process will be further augmented by the involvement of CRCs and BRCs that will be carefully nurtured to then work with SMCs to ensure effective planning. Institutional reforms that allow local communities to participate effectively in the school affairs through the SMCs will help transform the school system into a principal institution for community partnership.

3) Enhancing access and retention for disadvantaged children

Provision of schooling and maintenance: While impressive gains have been made to improve access and make it almost universal (98% of children have access to a primary school), there is a small proportion of children especially from the marginalized and most disadvantaged communities who are out of school. In addition, at the upper primary level, enrolments are still relatively low. The coming phase of SSA will continue to make special provisions to enroll the marginalized children through special training centers to prepare them for grade and age appropriate mainstreaming. Community mobilization campaigns for the awareness of RTE Act will be made more widespread to increase enrolment especially at the upper primary level. Importantly, to ensure quality of infrastructure for the long-term, resources will also be put into ensuring that infrastructure is well maintained. Further, there will be enhanced focus on increasing drinking water and toilet facilities for girls and boys.

Enhancing participation and retention of girls, SC, ST, minority children, and CWSN: There will be increased focus to improve the share of enrolment of girls, SC, ST, minority and CWSN in schools vis-à-vis their share in the population. The process and timeliness for the distribution of free entitlements like textbooks; uniforms; scholarships especially for girls, SC, ST and minority children; and aids and appliances for CWSN will be strengthened to improve retention rates of these children in schools. The SSA III project will help design specific strategies for CWSN, especially for those with severe physical impairment and learning disabilities. The component financing the Improving Quality and Enhancing Learning indicators will receive special attention in: (i) Development of grade level learning indicators for students; (ii) Early grade reading and mathematics; (iii) Upper Primary Math and Science Learning; and (iv) School Leadership development and School performance assessment. The second component financing Strengthening

monitoring and evaluation for improved accountability will have the following key thrust areas : (i) Monitoring learning outcomes; (ii) Evolving performance standards for teachers' accountability; (iii) Social accountability; (iv) Unified District Education System for Education (UDISE); (v) Special Focus Districts; (vi) Institutional Strengthening at different levels and; (vii) Strengthened planning and Appraisal under the program.

7. Project Beneficiaries

The project is expected to directly benefit about 200 million children enrolled in elementary schools and 1.8 million teachers in the sector. Girls are expected to be about 48.4 percent of the total beneficiaries.

8. Project Cost and Financing

SSA III will be financed by a US$ 400 million Investment Project Financing. The credit will finance a share (1.3%) of the GoI's Education for All Program.

Project Activities	Project cost (USD Millions)	IDA Financing (USD Millions)	% Financing
Improving Quality and Enhancing Learning Outcomes	16,191,000,.00	218.,35	55%
Strengthening monitoring and evaluation for improved accountability	4,883,000,.00	65.85	16%
Enhancing access and retention for disadvantaged children	8,586,000,.00	115.79	29%

Section 2
Approach and Methodology Used for the Limited EA

The very achievement of the programme/project objectives, particularly indicators related to access and equity, depends directly on the provision of safe, clean and sustainable surroundings in schools to create conducive learning and teaching environment. The SSA as a program has evolved since its launch and several guidelines and manuals have been developed to help in attaining this goal.

Under SSA II, environmental issues were related mainly to civil works, including construction of toilets and water facilities in schools. The Environmental Assessment (EA) for the SSA II was undertaken and completed in September 2007, including findings from National Third Party Evaluation (TPE) conducted in several major states. National level monitoring consisted of TPE, periodic reviews by project implementing authorities and special monitoring visits by TSG and other members. National level monitoring was supplemented through the Joint Review Missions (JRMs). These missions were effective in identifying shortcomings and highlighting good practices.

Building on this, for SSA III, a Diagnostic Review or Limited Environment Assessment (EA) study was conducted and completed in November 2013. This exercise was intended towards facilitating MHRD and the States Governments in overcoming some of the challenges/deficiencies with regard to environment, health and safety aspects in elementary schools in an incremental manner (building on efforts of the program till date) and in introducing/implementing the concept of 'greener schools'.

This section describes the approach and methodology used for carrying out the Diagnostic Review (also referred to as the Limited Environment Assessment) for SSA III:

1. Approach Used

The Diagnostic Review/limited EA and the recommendations to strengthen the environmental performance of SSA as a program were solely driven by the objective of creating and maintaining safe, clean and sustainable surroundings in schools, which has been recognized as a basic pre-requisite for creating an appropriate learning environment.

Accordingly, the methodology to achieve this goal involved the following:

(a) Study and review of secondary data/information related to environment, health and safety provisions/aspects.

(b) Review of the nature and extent of compliance of requirements/norms related to environment, health and safety aspects in schools.

(c) Identification of good practices, strengths, deficiencies and gaps in the existing system/s with regard to planning, implementation, enforcement and monitoring of environment, health and safety aspects in schools.

(d) Providing recommendations to help improve/strengthen the environmental performance of the programme.

2. Parameters Assessed

The review and assessment included, but was not limited to the following aspects:

a. Siting/location of the school

b. Planning and Lay-out of the campus (including orientation of building/s; internal circulation arrangements)

c. Structural safety aspects (application and adherence to building codes; condition of buildings)

d. Building Design (building plan; space for various activities; materials used)

e. Class room design (space availability; natural light and ventilation; display arrangements)

f. Measures for Disaster Risk Management

g. Facilities for Physically Challenged

h. Water management (source)

i. Drinking water arrangements

j. Drainage arrangements

k. Sanitation arrangements and its condition

l. Energy (availability, usage and efficiency measures, if any)

m. Waste management (collection and disposal arranagements)

n. Exposure to pollution particularly dust, contaminated water and noise.

o. Fire and Electrical Safety Practices

p. Over-all operation and maintenance aspects (housekeeping; cleanliness and hygiene in the school)

3. Methodology Adopted

1. Review of Secondary Data/Information

a. At National Level

The environment, health and safety related information has been collated from available/provided by the Ministry of Human Resource Development. The review provided necessary insights on various environmental management measures that have been ingrained under the program to provide a school that is child friendly and environmentally sustainable.

The findings from the documentation review provided the foundation for diagnostic assessment study. Attempts have been made to cover the various stages associated with planning, design, construction and maintenance of schools. It covered review of contents and mechanisms adopted for compliance with SSA Framework requirements.

The key documents reviewed include the following:

- SSA - Framework for Implementation (Revised after RTE Act)
- District Information System for Education (DISE) data
- Civil work Review Report : 2007-08
- Minutes of the Joint Review Mission Meetings
- Whole School Development Plan (WSDP) Guidelines
- Other Guidelines/Manuals (including Building As learning Aid and manuals for civil works developed for the program)

While documents such as SSA Framework gave information on the program requirements to make a school environmentally sustainable and make it contribute towards the overall learning experience of the children, other documents such JRM minutes and Civil Works Review Report provided insights into the achievement and challenges that the states have faced during implementation, particularly with regard to infrastructure gaps, construction and operation of schools.

b. At State Level

As part of the assessment exercise, site visits were made to two states - Uttar Pradesh and Gujarat. The aim was to review the state's approach to address the program requirements set forth in SSA Framework, particularly with a focus on the environmental management requirements. The documents prepared by the States were reviewed as part of this exercise. These included:

- Habitation Mapping
- School Mapping
- Civil Work - Planning and Implementation Manual
- Whole School Development Plan – state specific application
- Specific Assessment Report (such as EA done for SSA in Uttar Pradesh)
- Building plan drawing(s)
- Monitoring Checklists (used during planning and construction)

The review focused mainly on how effectively environmental management has been integrated in the over-all program and sub-project level execution. It also tried to identify good practices and challenges faced within/by the States in implementing the EHS requirements of the program.

2. Meetings with Key Stakeholders

Discussions with key stakeholders were held at the State, District, Block and School (involving head master and SMC members) level. The discussions were mainly aimed to seek feedback and assess the implementation issues in terms of site selection, building design, execution, quality of work, institutional support and other such issues faced by the different stakeholders.

The discussion especially with District Education Officer, Block Education Officer and Engineer (district level) provided a better sense on the implementation challenges of the program at District and Block level. On the other hand, discussions with members of School Management Committees helped in understanding their perception of the over-all program and in assessing their understanding of specific roles and responsibilities with regard to safety, health and hygiene maintenance in schools.

3. Site Visits to Selected Schools

On the basis of information collected and reviewed both at national and state level, specific aspects were reviewed on the ground. For this, site visits to selected schools were made. The specific parameters that were reviewed include:

- Type of program intervention/s (i.e. new school, major repair, additional room construction, construction of other facilities etc.)
- Overall school campus planning
- Building plan and design
- Site Selection
- Condition of the building/s (based on visual observations only)
- Use of cost effectiveness technologies/construction materials
- Overall finishing and detailing (in case of completed building)
- Provisions for CWSN
- Drinking water facility
- Sanitation facility
- Hygiene (in/around drinking water source, kitchen, grain storage room and sanitation facilities)
- Safety (boundary walls; railing/s, where needed)
- Electricity (connection, availability)
- Functioning of the SMC (particularly understanding on EHS issues and understanding of their roles and responsibilities)
- O&M practices (including budget/fund availability)
- Monitoring mechanism/s

The above parameters helped in identification of key environmental concerns that can/need to be addressed in a school to create a good environment that will be inviting, appealing to children and community and help avoid/reduce exposure to health and safety issues.

4. Information supplemented by Other Studies carried out in the past

While the state and school coverage carried out during this specific assessment was limited, the review built-on on the assessments conducted earlier for SSA I and SSA II.

Further, it has been informed by results from a similar exercise conducted for the Secondary School Program (Rashtriya Madhyamik Shiksha Abhiyan, RMSA) (also managed by MHRD), which looked at several upper primary schools across five states, namely Assam, Gujarat, Odisha, Kerala and Uttar Pradesh. The assessments carried out for RMSA were quite comprehensive and have been carried out/completed in the last two and half years.

Section 3
Diagnostic Review – Key Findings

Using the approach and methodology described in Section 2, the diagnostic review/ limited environment assessment exercise was conducted. The key findings from this assessment are presented in the sub-sections given below:

1. SSA Framework – Review of the Guidelines from an EHS perspective

The RTE Act specifically lays down the norms and standards for a school building. A school building has to be an all-weather building comprising at least one classroom for every teacher and an office-cum-store-cum- Head teachers room, barrier free access, toilets, safe and adequate drinking water facility for all children, arrangements for securing the school building boundary wall or green fencing, a kitchen for cooking MDM, a playground, equipment for sports and games, a library, and Teaching and Learning Material.

The current Program Framework (revised after RTE and currently in force) for Sarva Shiksha Abhiyan lays out clear and quite well defined requirements, from an environment, health and safety perspective. It seeks to develop each school's built-environment as an ecosystem for learning. The school is envisioned as inclusive and pedagogically rich, sustainable eco-system, safe and secure from hazards, incorporating elements of green architecture, optimum resource-utilization through culturally and environmentally sustainable practices.

While the complete document is available on MHRD's website, the coverage of specific topics relevant from an environment, health and safety perspective in the various sections of SSA Framework for Implementation (revised after RTE Act) is presented in the table below:

Section	Description	Key Aspect/s Covered
1.5	RTE Road Map	Establishment needed for school and time frame the norms are to be provided.
2.2	Mapping to facilitate children access in neighboring school	Gap analysis on need for schools and optimizing connectivity to neighboring school.
2.4	Up-gradating of Alternate School Facilities	Mentions about upgrading of Education Guarantee Scheme and Alternative and Innovative Education facilities to regular primary school.
2.5	Enabling provisions under SSA to universalize Access	• Norms for opening new schools • Overcoming barriers to opening new schools, up-grading and expansion of schools • Redeploying public building and infrastructure • Refurbishing unused old building

Section	Description	Key Aspect/s Covered
3.12	Education of Children with Special Needs	• Mapping of CWSN and • Removal of architectural barriers in the school
5.3	Potential areas of partnership	Provides for specialized support on design of infrastructure, school buildings, capacity building of SMC in decision making etc.
6.2	Whole school development	Master plan for school educational work, and infrastructure and its development
6.3	Unified vision of a school	Provides vision on development of each school's built environment as an ecosystem of learning
6.4	Critical consideration for design, planning and implementation	Provides guidance for school building plan, design, orientation for better light & ventilation, construction quality, CWSN, safety features, hazards resistant features
6.5	Other provisions for school infrastructure development	Provide guidance for major repairs, retrofitting existing building towards hazard resistant design, drinking & sanitation facilities, kitchen shed, playground, boundary wall/fencing for security;
6.7	Capacity building of SMC for undertaking building construction	Mentions requirements for capacity of SMC on development of drawings, understanding cost estimates, assessing building material quality, keeping accounts, material procurement etc.
6.8	Allocation for school infrastructure development	Cap on expenditure for civil works not to exceed 33%
6.10	Technical support for implementation	• Mention needs for qualified technical staff at block, district and state level • Setting of design cell at district and state level • need for Third Party evaluation for quality assurance
6.11	SSA support for school infrastructure	Lists out infrastructure elements supported under SSA
7.3	The state level structure	Sets out mechanism for inter-sectoral collaboration and convergence; (like PWD for design school spaces from pedagogic perspective, Dept. of Science to provide geo-spatial technology for school mapping etc.)

Section	Description	Key Aspect/s Covered
7.8	School supervision by Block and Cluster Functionaries	Mentions various elements to be monitored by Block Education Officer of which condition of building and infrastructures, drinking water, usability of toilet etc. are listed.
7.12	Monitoring at National Level	Provides aspects that will be monitored such as 'school development plans' to ensure that schools have all facilities such as infrastructure, teachers, TLE and child friendly and barrier free access with good learning environment.
9.6	Urban planning	Provides factors to be considered for finalizing neighborhood school in urban area.

Further, the SSA intends to achieve the above vision through preparation of Whole School Development Plan (WSDP) to integrate infrastructure design and development contributing towards learning of children in the school.

A WSDP is required to include:

i. Infrastructure plan to follow the education plan

ii. A safe and secure environment for all children

iii. Clean and hygienic environment for all children

iv. Child-centered planning with overall development of child (physical, social, emotional and cognitive) addressed

v. Responsive towards needs of all children and the diversity they bring in a school

vi. Entire school space (indoor and outdoor) as learning continuum for a child and the teacher – this is to be recognized by all stakeholders while planning

vii. Developing the entire school space as resource for fun and learning activities using ideas of Building as Learning Aid (BaLA)

viii. Maximizing the whole school as a resource – not just for children and teachers of that school but also for the community and neighborhood schools

ix. Respectful towards the local context and tradition – wisdom, social needs, educational needs, culture, geology, climate, flora-fauna, etc.

x. Optimum resource utilization and cost effectiveness

xi. Integrates good practices in environmentally sustainable designs – to demonstrate and practice them

xii. Scope for future expansion

Key Finding: In terms of the vision, requirements and norms, the current SSA Framework is comprehensive and covers with clarity several key requirements that can ensure a clean, safe and environment friendly school.

2. Joint Review Missions – Review of Proceedings/Minutes

The minutes from the joint review missions were helpful in identification of systemic challenges/issues faced by the the states faces during the implementation of the program. The issues vary from limited fund availability, non-availability of land for new schools/expansion of schools, concerns around technical support, coordination issues with PHED/RRWD for sanitation and water supply provisions and other site specific problems (such as flooding, erosion, difficult terrain, water shortage etc.).

The JRMs have also pointed out to the needs to look at a school 'as a whole' and to adopt a holistic vision in this regard – development of school infrastructure in a phased manner without the holistic vision has led to patchy/incomplete development, sometimes creating issues for future development as well.

Key Finding/s: Following the practical difficulties faced in the field and learning from experiences, new guidelines such as those pertaining to Whole School Development have been developed. As part of this, two key requirements pertaining to preparation of detailed layout plan, including mapping of school campus and specific environment assessment have been built into the guidelines.

Further, there are variations within performance of states and how similar issues are handled differently. Despite the fact that the local context may/will vary, there are substantive opportunities for cross-learning to help resolve specific issues.

3. Availability of Physical Infrastructure Facilities – Review of DISE data

The over-all physical environment in a school depends on infrastructure availability. The infrastructure demand in line with the objectives of SSA and requirements of RTE Act still remains to be fully/nearly achieved. In this context, data available has been analyzed to understand the infrastructure needs. The analytical data[6] of 2011-12 (provisional) has been used and 'aggregate of all states' has been used to understand the over-all situation of school infrastructure availability in the country.

The key findings are presented below and state-specific data has been presented in Annexure 1.

School Building/s

- Only 64.34% of school buildings are pucca; for 18.86% there is no information and remaining is either kutcha or semi pucca or schools are operated from tents.
- It is worth mentioning that 81.86% of schools are reportedly in a good condition and remaining either need minor or major repairs.

[6] DISE website

Status of school building (aggregate of all states)

Type	Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/ H Sec	All Schools
Private	18.58	23.69	65.07	20.31	34.83	22.61%
Rented	4.72	11.03	12.01	1.99	13.95	4.47%
Government	72.94	64.28	21.15	74.85	48.47	67.63%
Govt. school in rent free building	1.25	0.54	1.07	1.78	1.96	1.21%

School building type (aggregate of all states)

Type	Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
Pucca	63.75	66.19	67.30	62.30	66.45	64.36%
Kutcha	5.81	3.84	2.98	4.63	4.30	5.11%
Partially pucca	2.39	0.76	0.74	2.36	0.91	1.91%
Tent	0.14	0.03	0.01	0.02	0.04	0.09%
Multiple types	8.44	15.97	8.49	4.60	14.30	9.89%
No response	19.47	13.21	20.48	26.09	14.00	18.86%

Condition of School Building/S (aggregate of all states)

Condition	Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
Good condition	77.87	83.84	93.24	81.41	80.70	81.86%
Need Minor Repair	14.53	10.42	4.73	13.17	12.11	11.91%
Need Major Repair	7.60	5.74	2.03	5.41	7.19	6.23%

Toilets

Majority of schools have toilet for boys (81.14%) and girls (72.16%). However, in terms of functionality, the figure is 84.68% for girls and 65.87% for boys.

Toilet for boys (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
78.17	87.27	93.02	79.53	85.94	81.14

Toilet for girls (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
65.40	83.02	93.12	73.13	88.18	72.16

Kitchen Shed

A majority of schools (92.06%) are providing mid-day meals. However, only 40.94% of these schools have a kitchen shed.

Kitchen Shed (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
46.30	44.75	40.73	15.06	25.10	40.94

Drinking Water Facility

The provision of drinking water facility in schools stands at 94.10%.

Drinking Water Facilities (Aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
93.28	96.51	97.09	93.89	97.11	94.10

Boundary Wall

A secure school campus is necessary for the safety of the children as well assets created under the program. However, currently only 56.89% of schools have boundary wall. The need to provide boundary wall has to be established and prioritized based on the site conditions of the area in which the school is located.

Boundary Wall (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
48.57	74.11	88.16	49.12	76.63	56.89

Ramps

The provision of a ramp with railing has been factored into account for children with special needs under SSA guidelines. However, only 53.43% of schools has been to provide ramps, and therefore a large gap still remains to be filled.

Availability of Ramp (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
53.28	59.96	36.27	58.48	40.19	53.43

Playground

Only 56.10% of schools have playground – innovative ways of planning and design would be required to meet the shortfall.

Availability of Playground (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with U P & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
48.85	60.64	81.00	64.72	79.28	56.10

Key Finding/s: While substantive progress has been made on provision of basic infrastructure in schools, there are clearly specific aspects that attention under SSA III to overcome the current gaps. Beyond this, attention will be needed to ensure that the quality of works and finishing are not compromised in the process of achieving physical targets.

4. Findings from Field Assessment

This sub-section presents the findings from the secondary data/information review, field assessment and discussion with the stakeholders:

Site Selection

The improper selection of site for locating a school has an implication on the overall physical environment of the campus, including at times with impacts on health and hygiene conditions. While there are instances where choices were fairly limited due to geographic, social or land availability constraints, environmental issues like flooding, water logging/stagnation of water in school campus due to absence/ blockage of drains, erosion, exposure to vectors etc.

The importance of proper site selection has been reported in 31st Joint Review Meeting by the states of Assam and Uttarakhand, where schools have been affected due to floods. In case of Assam, the location in a riverine area resulted in washing away of the school itself. In addition, school campus located along/too close to national highways, railway lines, water bodies are of concern from a safety and exposure to noise pollution.

The consultation with stakeholders in Uttar Pradesh has also pointed out that the schools located in plateau region like Bundelkhand of the state have challenges related to water availability. Here, temporary measures have been taken-up by the school for bringing in water through tankers with support from community.

The site selection plays an important role, particularly in states with varying geo-climatic conditions. The exclusion of site selection aspect during planning stage not only increases the vulnerability of the children and teachers, but has also resulted into delay in civil work construction and wastage of money due to damage in infrastructure created.

Key Finding/s: Learning lessons from implementation experience thus far, wherever possible site specific improvement/interventions should be implemented. For new schools to be established to meet the previously unmet demand or to fulfill requirements set forth under RTE, due considerations should be given to 'site selection criteria' before finalizing the location of a school. The guidance for this already exists but just needs to be applied on the ground by the states.

Building Planning & Design

The assessment has looked into campus planning, integration of energy efficient measures, cost effectiveness through use of locally available materials among other aspects listed in Section 2 of this document.

Some of the issues that have come to light while assessing this aspect are mentioned below:

- Currently, many states (except Gujarat) still go with one design for all schools and this approach needs to be carefully revisited.
- The need for drainage in the school campus was not assessed and no proper provisions have been made. The result is water logging during rainy season creating accessibility and health problems. With prolonged stagnation of water,

issues such as unhygienic conditions, odour due to decay of organic matter and vector breeding crop-up. In Andhra Pradesh and Uttar Pradesh, water logging in rainy seasons within school campus due to absence of drains has been recorded.

- The use of innovative design and cost effective construction material has not been adopted in most states. Very few states have tried to use locally available material like fly-ash bricks and bamboo for roof ceiling/partition wall as construction material.
- The orientation of the building is such that daylight and proper ventilation is not adequately available in the classroom.
- The drinking water and sanitation are planned and executed in isolation, as a result of which necessary disposal especially for waste water from hand pump/drinking water facility area is not provided.
- The un-planned addition of class rooms is creating a scenario where land availability is hindering/will hinder future expansion.
- For CWSN, construction of ramp has been included. However, concerns remain due to choice of inappropriate location, level difference's encountered after entry into the building (and therefore the main ramp not fulfilling the required purpose) and issues around improper specifications (angle of the slope, width).

Some good practices too have come to the fore. This includes:

- A separate site/school specific plan and estimate has been prepared, where construction was not feasible as per the Model Plan of the state. Example – Gujarat.
- Plantations and some basic landscaping within the campus – mostly as initiatives of the individual Head Master.

Key Finding/s: The findings show a substantial variation in practice both within and between the states. While good practices have been noted, there remains a scope for improvement in introducing environment friendly building design and holistic campus development. The application of the WSDP guidelines prepared this year (March 2013) should help in this regard. Also, specific guidelines may need more detailing out or require changes from existing provisions, which should be taken-up by the states after detailed consultations with concerned stakeholders.

Construction

On the basis of discussion with officers/stakeholders at the district, block and school level, some insights on challenges during construction were obtained. These include:

- Capacity of the head master, SMC members and official/s of Education Department at block and district level to provide inputs during construction stage is usually limited. Though training has been provided on overall supervision and monitoring during construction, appropriate finishing and detailing in civil works requires specific attention.

- Inadequate technical staff to support and guide during construction stage at block level has been highlighted. Taking the case of Uttar Pradesh, where Junior Engineer, Rural Engineering Department is responsible for technical support during construction. There is only one supervisor for a block and with such assignments as additional charge over and above the existing responsibilities, there are practical difficulties in providing the required/ necessary support.
- The weak capacity in terms of human resource at state, district and block level has resulted into issues regarding the quality of works. For resolving such issues, the need for stronger Third Party Evaluation was recommended in the Civil Works Review Report.
- Lack of proper technical oversight has also resulted in building/s getting into poor condition - requiring repair and maintenance much earlier in their lifecycle. In few school buildings visited in Uttar Pradesh, structural cracks, flooring damage and falling of wall plaster was observed.

Key Finding/s: Several of these issues can be avoided/minimized by strengthening the Technical Support for supervision during construction. More attention is required on finer issues pertaining to details in design and finishing works.

Operation and Maintenance

The program does have provision for grants for the maintenance of the infrastructure created. But the available data shows only 67.17% of schools have received the grant.

School Development Grant Received (aggregate of all states)

Primary Only	Primary with Upper Primary	Primary with UP & Sec/H Sec	Upper Primary only	Upper Primary With Sec/H Sec	All Schools
72.98	64.47	17.44	65.70	55.63	67.17

Some states have made additional provisions to support the operation and maintenance but in most cases the amount is too meager. Several stakeholders have shared challenges/issues (including non-availability of man-power to carry out specific cleaning related tasks) regarding this issue. A specific discussion would be required to ensure that maintenance issues, that are vital for ensuring safe and healthy learning environment, get proper attention from all levels.

5. Civil Work Review Report (2007-08)

The report provides findings from the reviews based on visits to schools in 11 states. The report also highlights the various shortcomings as well good practices that have been observed in different states. The inputs from this review are useful

since these are real time reflections of the challenges/issues faced on the ground for improving/strengthening existing guidelines and processes of the program.

Parameters Reviewed	Issues	Good Practices
Planning Process	**Andhra Pradesh** Omission of existing infrastructure (haphazard constructed) resulted in shrinking of play field area. Absence of drainage arrangement creates water logging during rainy season. School premise mapping done, however, lack detail information on existing infrastructure, land area, future expansion etc. **Assam** Absence of drainage arrangement and water logging during monsoon. School mapping inadequate and require detail information on existing infrastructure, land area, future expansion etc. **Uttar Pradesh** One design for entire districts, VEC not consulted. Alteration in building plan done due to land constraint, engineer not informed. Additional unit/room has reduced school premise land area – constructed as separate unit/room. No drainage arrangement to drain rain water. Land availability at uran area is problem. Lack of infrastructure data at block and district level. There is no provision for future expansion in current planning process.	**Assam** School specific plan & estimates prepared, where construction activities are not feasible as per Model Plan. **Uttar Pradesh** Plantation done due to individual initiative of head master. **Gujarat** Different building plan & design available for selection best suited to site condition.
Site selection	**Andhra Pradesh** No topographic survey done on account of flat terrain.	**AP, Uttar Pradesh** Factors like electrical lines, telephone lines, location in hazardous area has been considered for new site.

Parameters Reviewed	Issues	Good Practices
	Assam No topographic survey done and school site located near village pond, national highway, railway line. School areas are water logged. **Uttar Pradesh** No topographic survey done and most of school site is in filling as nallah, pond or ditch exist there.	**Gujarat** Topographical survey carried out for ground that is undulating for design mofication. Site not selected in vicinity of electric line, rain water drainage line etc.
Construction Process	**Andhra Pradesh** Construction of building done in isolation of toilet and drinking water facility. **Assam** Water deficiency during construction in karbi angling & cachar districts. No retaining wall for schools constructed in hilly area. **Uttar Pradesh** Roof devoid of rain spouts.	**Assam** Ramps with railing have been provided in almost all building, properly placed and use of all children.
Cost Effectiveness Techniques	**Uttar Pradesh** No cost effective technique adopted.	**AP** Fly ash bricks were used for construction in Nellore & Vizianagaram. **Assam** Bamboo used in roof ceiling, partition wall.
Design Innovations	**Andhra Pradesh** One building design for entire state. The building design does not have provision of ramp for CWSN. Simple building design without any energy efficient system. Roof drain and foundation protection not adequate. **Assam** No energy efficient system building design.	**AP** Has good ventilation. Water harvesting structure provided in new building constructed (UNICEF assisted). Seismic resistant factor considered during design for new building. **Assam** Change in internal layout of building (big hall), by replacing internal wall with

Parameters Reviewed	Issues	Good Practices
	Uttar Pradesh Ramps are not as per specification. Ventilation not adequate in urban area. No energy efficient system building design. Ignorant about rain water harvesting structure. **Gujarat** Reliable drinking water facility missing in rural school. Wanting of sanitation in rural area.	partition made of bamboo. Has good ventilation. **Uttar Pradesh** Seismic resistant factor considered during design. **Gujarat** Building plan modified where land availability was less. Ramps meeting specification and proper railing provided. Good ventilation. Sanitation in urban area provided for girl and boy and maintained neat and clean. Outer wall of school act as boundary wall thereby reducing/minimizing requirement of boundary wall. Roof rain water harvesting is provided. Energy efficient building design.
Additional Facilities	**Andhra Pradesh** Hand pump become defunct due to misuse by outsiders and stealing of accessories. New building devoid of water and sanitation facilities (rural work services to provide and work in isolation). Waste water from use needs proper disposal to maintain hygienic condition of campus. Sanitation facility inadequate in rural area. Existing toilet are defunct (used by outsiders). Need for boundary wall to preserve assets created.	

Parameters Reviewed	Issues	Good Practices
	Assam No paving and maintenance around hand pump. No water for toilet and is in unhygienic condition due to no cleaner. Toilet facility seems to be inadequate with no privacy for girl. Boundary wall not provided in most of school. **Uttar Pradesh** Reliable source missing in rural school especially in plateau area where boring of well is not possible. Toilet provided is inadequate and no water provision, not maintained creating unhygienic condition. The toilet facility for girls has no privacy. Need for boundary wall to prevent entry of stray animals.	
Safety Audits	**Andhra Pradesh** Location of school along road and pond pose safety for children. No firefighting arrangement. **Assam** No firefighting arrangement. Safety concern due to school location along national highway and railway line.	**AP** School located in village or vicinity child safety or security is no concern. Railing on ramp for CWSN. **Assam & Uttar Pradesh** Seismic resistance considered during design and construction. **Gujarat** Seismic factor considered during design. Earthing made mandatory for electricity connection.
Implementation	**Andhra Pradesh** Need for a third party evaluation for ensuring quality of work.	**Andhra Pradesh** Assistant Engineer is available from site selection and supervision during construction.

Parameters Reviewed	Issues	Good Practices
	Uttar Pradesh Rural engineer deputed at block level don't take interest in civil work due overloaded work. Sufficient technical man-power required for guidance and supervision. Need third party evaluation for ensuring quality of work.	**Assam** Good technical staff supports. **Gujarat** Third party agency deputed to monitor quality of work.
Operation and Maintenance	**Andhra Pradesh, Assam** Inadequate fund, suggested for review.	-
Community Involvement and Responses	-	**AP, Gujarat, UP, Assam** Donated land and necessary items for construction of school. Sense of ownership when manage by them.
Provision for children with Special Needs (CWSN)	**Andhra Pradesh** Other than ramp with railing, there is no provision like toilet etc. Ramps have not been provided in all school building.	-

Key Finding/s: The Civil Works Review has provided relevant and useful insight into several systemic and state specific issues. The lessons learnt and recommendations from this exercise should be revisited from time to time to review progress in resolving the identified issues. A similar review in future focusing on O&M issues should also be useful in gauging progress about the delivery of the program objectives, from an infrastructure point of view.

Conclusion

The nature of activities proposed under the current project does not pose significant environmental risks. The environmental issues in the project are related mainly to the construction (primarily expansion/upgrading) and operation of schools.

Impacts pertaining to: (a) location (environmental and social features of the site and surrounding land-uses); (b) design (lay-out within the campus, sanitation, water supply, drainage, solid waste arrangements, waste water management, ventilation, access, energy efficiency, material usage, fire safety, storage facility and natural disaster dimension) and; (c) construction management, including occupational health and safety issues will have to be dealt with in cases where new school construction or civil works for expansion/upgrading, including those to meet the RTE requirements, such as additional class-rooms, toilets and/or water facilities

are envisaged. This will also include the situations where need based infrastructure is introduced for children with special needs.

However, in a vast majority of the cases where the school infrastructure has already been created, the most pertinent environment, health and safety issues revolve around the need for 'creating/maintaining' a clean, hygienic and safe learning and teaching environment. Issues such as regular cleaning and proper maintenance of toilets, kitchen, water supply facilities, regular quality checks for the potable water supply and waste management would require attention.

Section 4
Implementation Arrangements

With the SSA becoming the main vehicle of implementing the RTE Act, the SSA framework suggests an integrated structure at the state and district levels for management at the state government level.

1. Institutional Arrangements

Management and implementation arrangements under SSA III will provide for: (i) program management, oversight and review; (ii) undertaking management and implementation through institutional arrangements like the PAB of the SSA; (iii) providing and generating technical support and capacity building effected through national and state level institutions.

National Level

The SSA is governed at the Centre by a General Body chaired by the Prime Minister, an Executive Committee and a Project Approval Board. At the national level, a PAB is functional that assists the General Body in the management and oversight of the SSA project that is now the vehicle for the RTE Act. The RTE Act envisages a National Advisory Council at the Centre and State Advisory Councils, to advice on the implementation of the Act. As for monitoring the Act designates the NCPCR and its state counterparts to ensure that the rights of the child are not violated.

State Level

At the State level, a State Mission Authority whose governing council is chaired by the Chief Minister operates as an autonomous SIS which provides direction and oversight at the State level. The SIS, through the State Project Office (SPO), coordinates with District and sub-District level organizations; supports districts in preparing annual plans and budgets (AWPBs); is responsible for monitoring and evaluation; and serves as a channel for the flow of funds to the lower levels. The SPO reports on implementation progress, and submits and negotiates the consolidated AWP&Bs, to the national level.

District Level

At the District level, the oversight function is carried out by District Elementary Education Committees, chaired by the District Collector. The District Project Office (DPO), which works in close collaboration with the SPO, prepares the district AWP&B, and monitors physical and financial implementation progress. The district office is headed by the District Education Officer (DEO) who also performs the duties of the District Project Coordinator (DPC).

Sub-district Level

Block Education Offices (BEOs) have administrative responsibility for the schools, working in close collaboration with BRCs and CRCs on academic support. With the

passing of the RTE Act, the sub-district level authority or the "local authority" having administrative control over the school or empowered by or under any law for the time being in force to function as a local authority in any city, town or village;7… will through close coordination with the SMCs oversee educational management and implementation in the block.

Community and School Level

Under the RTE Act the SMCs have been provided greater powers and responsibilities. They can take the support of the PRIs, to effectively monitor and implement SSA, through community mobilization, preparing school development plans, identifying out of school children and monitoring students' and teachers' attendance. SMCs are often sub committees of the Gram Panchayat (the village level elected government).

2. Monitoring and Evaluation

National level monitoring consists of Third Party Evaluations (TPE), periodic reviews by project implementing authorities and special monitoring visits by TSG and other members. National level monitoring is supplemented through the JRMs. These missions have been effective in identifying shortcomings and highlighting good practices on a variety of aspects, including environment, health and safety dimensions. DISE coverage has expanded across all schools and it continues to provide critical information required for infrastructure planning for schools. The same mechanisms will be used for monitoring the environmental, health and safety requirements and performance under the project as well. This will also include environmental audits which will be conducted by special teams constituted out of the existing lot of engineers within the state implementing agencies. All States and UTs will be covered in a cycle of three years. The audits are expected to provide the state technical teams an opportunity to learn through self-evaluation.

[7] SSA Framework for Implementation, 2009

Section 5
Management Framework:
Recommendations for Strengthening Environmental Performance

1. Sustainability for Schools

The Management Framework and recommendations in this section focus on sustainable development principles that can be embedded into whole-school management practices and provide practical guidance to help schools operate in a more sustainable way.

In this context, the broad goals of a safe and environmental friendly school building would be to:

- Create a safe/hazard free school environment
- Improve indoor air quality and maintain good learning/teaching environment
- Employ day-lighting strategies
- Improve classroom acoustics
- Conserve water and manage storm-water runoff
- Encourage waste management efforts
- Employ sustainable purchasing and green cleaning practices

However, based on the findings from the diagnostic review, this section provides some general guidelines for SSA III to achieve the above mentioned goals and achieve/strengthen the objectives created under the SSA – Framework for Implementation and the norms set forth under RTE Act on issues pertaining to environment, health and safety aspects in schools.

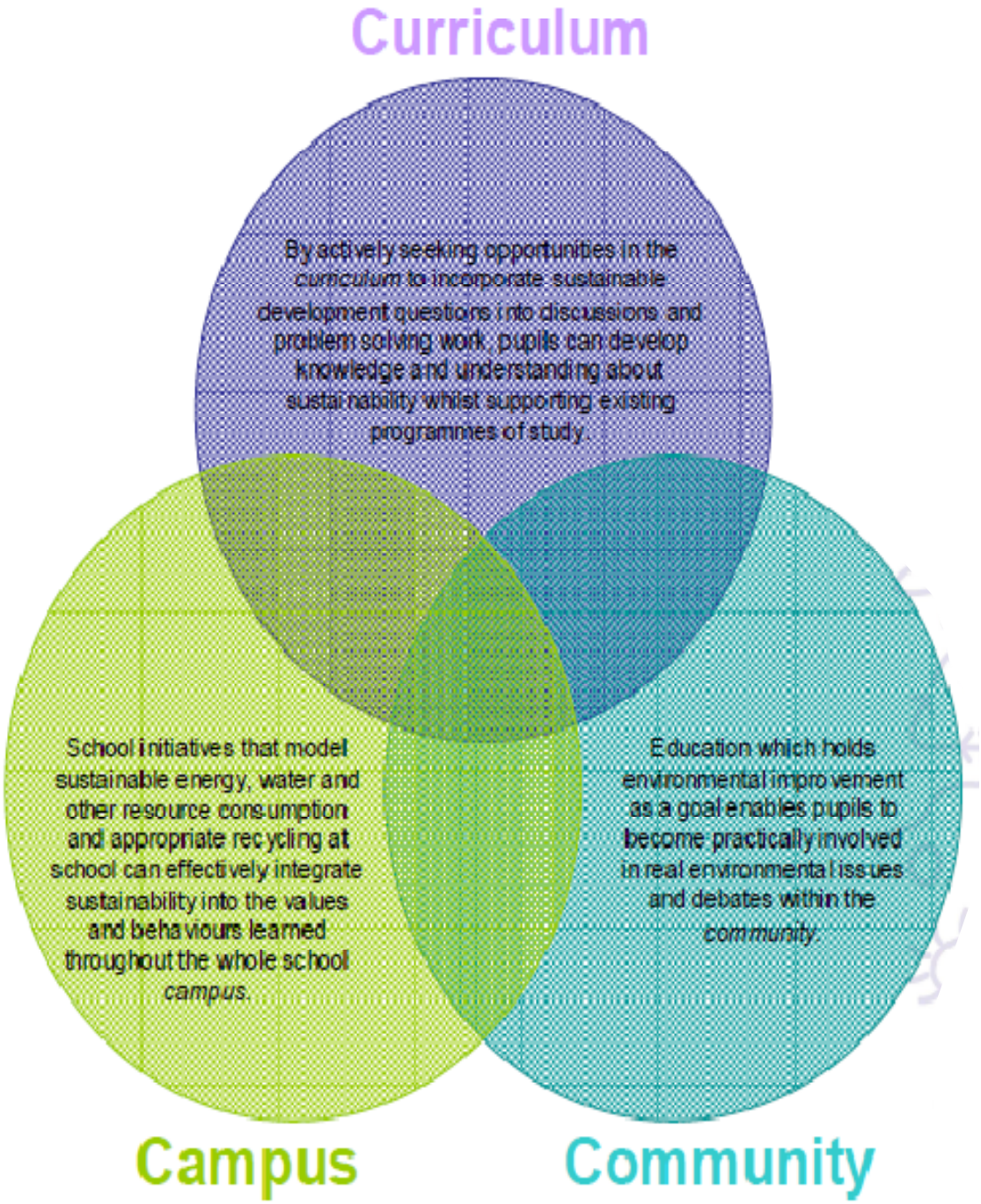
All the goals are interrelated and a building can achieve best results only through a continual process of balancing trade-offs. Given the vast geographical, social, economical and political variation across India it is very difficult to provide absolute solutions to all problems. Thus, certain amount of decision making in the local context is essential. For example increasing ventilation also increases the ingress of heat which can be a problem in hot and dry climate.

It is generally observed that maintenance of schools building is irregular and in some cases far from desired due to lack of funds. Without maintenance, most of the systems and material deteriorates over time resulting in poor educational environment. Thus, given a choice, material and systems should be selected based on the maintenance requirement rather than capital cost.

The Eight Doorways to Sustainability

Doorway	Sustainable Schools...
Energy and water	Understand the importance of energy efficiency, renewable energy and water conservation and model these things at school.
Food and drink	Promote the value of healthy, local and sustainable food and drink and assist understanding of the environmental, social and animal welfare issues of the food we buy.
Travel and traffic	Address school travel issues and encourage sustainable travel. Where possible they provide facilities for healthier, less polluting or less dangerous modes of transport
Purchasing and waste	Are models of waste minimisation and sustainable purchasing, using goods and services of high environmental and ethical standards and reducing, reusing, repairing and recycling as much as possible.
Buildings and grounds	Manage and, where possible, design their buildings in ways that demonstrate sustainable development to everyone who uses the school. Through their grounds, sustainable schools bring pupils closer to the natural world, capture their imaginations in outdoor play, and help them learn about sustainable living.
Taking part	Enable all pupils to participate fully in school life and create opportunities for children to take part Island life though active participation in community projects and debates.
Local environment	Enrich their educational mission with activities that improve the environment and quality of life of local people, wildlife and habitats.
Global dimension	Understand and value their roles as global citizens, learning about the lives of people living in other parts of the world and finding ways to help.

Each doorway can be delivered through the areas of Curriculum, the Campus and the Community to facilitate learning throughout the whole school.



2. Recommendations/Suggestions

The SSA as a program has evolved since its launch. The program understands the needs to integrate environmental dimensions in the over-all school development and management context - as a result of which the Ministry of Human Resources Development has already developed several guidelines for the said purpose. Most of these manuals continue to remain relevant to the program and will therefore be used for SSA III as well. In addition, some states too have developed/translated the key requirements for improved dissemination of requirements/messages into the field. A clear vision is evident from the guidelines to make school appealing to children and parents to accomplish the goals set under the program.

The diagnostic review lead to identification of some key areas/issues that require support/strengthening as part of SSA III to improve the over-all environment performance of the program. One of the key findings of the assessment is even though several guidelines exist, there is a substantial scope to strengthen the application and implementation of these instruments, more so in the specific context less developed states.

The basic premise of the recommendations/suggestions made here is towards increasing the capacity of institutional set-ups at different levels, particularly those operating in the field with right mix of technical skills to correctly appreciate and apply the guidelines/norms formulated and ensure enforcement of these through regular monitoring and evaluation, all the way from planning to operation.

The following section describes the various measures/suggestions for strengthening the environment, health and safety dimensions as part of SSA III implementation:

1. Application and implementation of Whole School Development Plan

The key elements of WSDP include:

i. Whole school development Planning and School Management Committee
ii. Understanding Educational issues in planning
iii. Understanding school and planning
iv. Ensuring safety and reducing vulnerability
v. WSSHE, Managing, Conserving, Resource and Recycling waste
vi. Planning for maintenance our school
vii. Planning with children in focus
viii. Institutional mechanism for WSDP

Recommendations

i. Finalization of the draft guidelines on 'Whole School Development Plan' taking into cognizance and inputs or suggestions from the key stakeholders including the State Governments.
ii. Providing support and guidance to the states on application of integrated or holistic planning norms as outlined in the said guidelines – with specific emphasis on spatial planning related aspects.

- Rectification or minor changes that may be required to improve safety in schools
- Include small alteration or additions to provide need based infrastructure and facilities for Children with Special Needs.
- Provision of boundary walls
- Other elements that may be considered important in the local/state context (such as water conservation measures in water deficit areas)

iii. All states should strive to implement the 'whole school development plan' requirement, which includes school mapping and preparation of detailed layout of school campus and infrastructure records.

iv. Regular initial reviews by qualified personnel will help in over-coming deficiencies/gaps that may exist during the initial years of application of these guidelines.

v. Preparation of training module/s and support for capacity building to ensure proper the implementation of WSDP.

2. Construction

The main issue that is associated with construction is lack of/weak technical knowledge at the SMC level and inadequate technical staff for supervision and monitoring.

Recommendations

i. Adopt or use existing manuals and guidelines that have been developed for civil works related activities. Use of existing guidelines on construction planning and management (listed below) during construction of new or expansion of school building has to be encouraged (reminders are required from time to time).
   - Community Construction Manual
   - Building Rural Primary School: Towards Improved Design
   - Child Friendly Elements Rural Primary School: Engineer's Handbook

i. Ensure adequate number of technical staff (architect & civil engineers) availability for proper design and execution of civil works.

ii. Continued capacity building or training of SMC members who are responsible for monitoring day to day civil work activity.

3. Operation & Maintenance

The school infrastructure Operation and Maintenance (O&M) is currently financed through annual Repair and Maintenance Grants (RMG) and other State funds, which are not always adequate. Under the project, all States will develop/strengthen sustainable school infrastructure O&M procedures. A feature of SSA has been the involvement of communities and school level institutions such as VECs/SMCs in the identification, planning, design, implementation, operation and maintenance of schools and other program activities, which will continue to form a part of these

procedures. The nature, scale and level of interventions, however will continue to remain contextual and will vary between and sometimes, even within the state.

Recommendations

i. Discuss and formulate appropriate mechanism/s for budget allocation for O&M works.

ii. All states to develop/update O&M procedures/guidelines.

- Specific attention is required on issues related to maintaining cleanliness and hygiene in campus particularly in toilets, kitchen and in/around water supply facilities.
- Periodic monitoring of potable water quality
- Maintenance of drainage and prevention of water logging/accumulation in school campus

4. Awareness & Capacity Building

The awareness on various environmental aspects to be integrated as part of 'Whole School Development Plan' is very limited. A training plan should be prepared covering key topics/subjects.

Training for SPIU, DPIUs and SMCs could focus on the following:

- Site Selection
- Campus – Layout and Planning
- Building design and introduction of environment and child friendly elements
- Energy efficiency measures
- Cost effective construction materials
- Health and Safety in School
- Waste management

An Awareness and Sensitization program for students is also required. Interventions related to cleanliness and hygiene awareness among students should be strengthened by dove-tailing existing available materials and schemes or as part of value education classes.

5. Replication & Dissemination of Good Practices

The innovations developed during DPEP, SSA I and II (such as BaLA - Building as Learning Aid) have been implemented in some states but there remains a significant opportunity to scale-up good practices.

The review of documents highlights several practices that have evolved to address different type of environmental issues in varying sites conditions by various states. While MHRD has been sharing this information and has encouraged states to present this information during Review Meetings, the outreach largely remains limited to the audience present. Discussions in the field have clearly reflected the need to collate and share this information about good practices (and even lessons learnt) in a much more accessible manner.

Annexures

Annexure 1 : State-wise Data on Infrastructure Availability

Table 1: Percentage Distribution of School by Status of School Building (2011-2012)

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Andaman & Nicobar Islands							
	Private	18.33	17.33	0.00	0.00	12.75	16.82
	Rented	13.94	2.67	0.00	0.00	0.00	8.64
	Government	61.75	78.67	0.00	0.00	87.25	70.79
	Government school in rent free	0.00	0.00	0.00	0.00	0.00	0.00
Andhra Pradesh							
	Private	10.84	24.88	33.18	0.00	30.13	16.75
	Rented	7.27	22.33	24.01	0.00	17.87	11.71
	Government	77.26	52.43	40.19	0.00	50.29	68.11
	Government school in rent free building	1.65	0.25	2.54	0.00	1.05	1.34
Arunachal Pradesh							
	Private	27.	36.53	91	42.	17.72	31.55
	Rented	0.16	2.7	6.03	0.33	0.69	0.36
	Government	69.	57.3	2.45	46.	74.37	63.81
	Government school in rent free building	2.73	3.41	0.51	10.03	7.07	4.16
Assam							
	Private	27.	36.53	91.00	42.	17.72	31.55
	Rented	0.16	2.70	6.03	0.33	0.69	0.36
	Government	69.	57.30	2.45	46.	74.37	63.81
	Government school in rent free building	2.73	3.41	0.51	10.03	7.07	4.16
Bihar							
	Private	0.89	1.50	31.50	2.13	2.06	1.37
	Rented	0.53	0.54	1.22	0.85	0.00	0.54
	Government	72.	96.37	57.52	93.	93.81	82.49
	Government school in rent free building	1.01	0.55	5.08	1.70	3.09	0.85

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Chandigarh							
	Private	35.	48.28	37.14	0	50	39.04
	Rented	7.14	0	0.71	0	0	1.07
	Government	57.	48.28	60.71	0	50	58.29
	Government school in rent free building	0	0	1.43	0	0	1.07
Chhattisgarh							
	Private	3.14	50.91	63.25	2.65	35.66	6.02
	Rented	2.85	41.93	32.93	0.96	16.08	4.59
	Government	87.	4.23	2.21	92.	36.36	83.96
	Government school in rent free building	1.35	2.23	1.20	1.05	4.20	1.32
Dadra & Nagar Haveli							
	Private	4.98	5.49	50.00	0.00	0.00	6.29
	Rented	3.48	2.20	37.50	0.00	0.00	3.97
	Government	91.	92.31	0.00	0.00	100.00	89.07
	Government school in rent free building	0.00	0.00	12.50	100.00	0.00	0.66
Daman & Diu							
	Private	9.84	37.50	75.00	0.00	0.00	13.27
	Rented	11.	12.50	12.50	8.00	9.09	10.62
	Government	78.	50.00	0.00	92.	90.91	75.22
	Government school in rent free building	0.00	0.00	12.50	0.00	0.00	0.88
Delhi							
	Private	10.	29.71	47.68	27.	13.00	22.46
	Rented	23.	66.29	16.68	15.	1.86	23.22
	Government	63.	3.62	33.44	52.	81.73	51.88
	Government school in rent free building	2.52	0.38	2.05	5.00	3.10	2.27
Goa							
	Private	7.82	14.61	16.27	10.	18.37	10.35
	Rented	11.	23.60	75.90	60.	46.26	25.22
	Government	79.	61.80	6.63	26.	32.65	63.24
	Government school in rent free building	0.68	0.00	0.00	1.22	2.72	0.80

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Gujarat							
	Private	4.06	12.59	65.73	52.	54.55	10.78
	Rented	3.61	9.22	25.87	13.	27.27	7.79
	Government	91.	77.60	3.50	30.	18.18	80.74
	Government school in rent free building	0.45	0.40	1.40	2.97	0.00	0.44
Haryana							
	Private	7.41	83.94	88.98	0.83	4.28	26.07
	Rented	1.56	12.66	7.80	0.25	0.44	3.13
	Government	89.	1.20	1.86	96.	94.75	69.32
	Government school in rent free building	0.88	0.07	0.08	0.33	0.28	0.53
Himachal Pradesh							
	Private	1.71	28.69	42.49	0.18	0.66	4.95
	Rented	4.16	69.64	54.26	0.26	0.47	8.91
	Government	92.	1.39	2.11	93.	97.33	84.20
	Government school in rent free building	1.17	0.00	0.67	6.33	1.41	1.79
Jammu & Kashmir							
	Private	6.36	14.98	45.79	0.78	1.77	13.24
	Rented	32.	14.97	14.99	54.	4.87	24.34
	Government	48.	68.74	39.04	30.	92.26	55.69
	Government school in rent free building	11.61	1.29	0.15	14.06	1.11	6.60
Jharkhand							
	Private	3.48	6.99	44.20	34.	32.98	7.06
	Rented	1.38	2.45	7.89	0.00	1.90	2.03
	Government	91.	89.13	44.63	43.	53.53	87.83
	Government school in rent free building	0.62	0.47	0.81	15.22	7.69	0.74
Karnataka							
	Private	6.92	18.30	75.48	39.	49.03	21.24
	Rented	5.85	7.22	22.11	17.	9.58	7.70
	Government	86.12	73.89	1.69	26.53	35.30	69.30
	Government school in rent free building	0.93	0.50	0.46	15.	4.97	1.46

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Kerala							
	Private	58.56	63.82	60.66	86.26	64.53	61.97
	Rented	2.93	2.47	1.02	0.58	0.77	2.26
	Government	34.63	30.37	32.95	11.26	30.91	31.95
	Government school in rent free building	0.55	0.37	0.45	0.15	0.62	0.49
Lakshadweep							
	Private	11.11	0.00	0.00	0.00	0.00	4.65
	Rented	27.78	0.00	16.67	0.00	0.00	13.95
	Government	55.56	100.00	66.67	100.00	100.00	76.74
	Government school in rent free building	0.00	0.00	16.67	0.00	0.00	2.33
Madhya Pradesh							
	Private	4.36	41.63	51.92	2.56	63.21	9.30
	Rented	5.00	57.75	46.63	1.75	24.87	11.29
	Government	89.98	0.34	1.21	94.93	10.88	78.79
	Government school in rent free building	0.26	0.21	0.20	0.29	1.04	0.26
Maharashtra							
	Private	5.93	8.89	37.28	17.	31.91	12.79
	Rented	9.30	15.06	30.35	44.	61.33	21.18
	Government	82.84	75.04	17.34	24.32	4.91	64.09
	Government school in rent free building	0.69	0.50	13.90	13.	1.25	1.02
Manipur							
	Private	18.29	52.76	77.34	74.47	26.11	34.73
	Rented	0.62	1.23	0.77	0.00	0.00	0.71
	Government	77.41	45.55	21.59	25.53	73.89	62.16
	Government school in rent free building	0.78	0.46	0.15	0.00	0.00	0.58
Meghalaya							
	Private	38.70	80.09	82.79	42.50	61.54	41.08
	Rented	2.37	6.64	5.74	2.55	2.80	2.53
	Government	42.61	7.11	7.38	40.09	25.87	40.81
	Government school in rent free building	12.57	3.79	1.64	8.65	4.90	11.26

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Mizoram							
	Private	12.67	74.69	53.85	8.64	20.00	18.52
	Rented	1.62	14.81	46.15	1.47	40.00	3.49
	Government	80.93	9.57	0.00	85.28	40.00	73.74
	Government school in rent free building	1.62	0.31	0.00	2.65	0.00	1.81
Nagaland							
	Private	8.19	85.07	96.01	0.74	2.10	22.44
	Rented	1.09	1.87	1.84	0.18	0.00	1.03
	Government	79.86	12.69	1.84	65.62	93.01	64.02
	Government school in rent free building	3.55	0.37	0.31	4.44	3.50	3.09
Odisha							
	Private	2.98	5.89	45.02	21.	33.79	9.18
	Rented	2.06	2.18	5.35	0.24	0.79	1.89
	Government	90.76	91.09	47.51	71.60	59.68	85.34
	Government school in rent free building	0.95	0.35	1.20	4.06	4.28	1.38
Puducherry							
	Private	6.32	26.17	48.64	0.00	0.00	21.76
	Rented	8.42	25.23	28.64	0.00	1.10	16.36
	Government	84.21	46.73	18.18	0.00	98.90	59.74
	Government school in rent free building	0.70	0.93	0.91	0.00	0.00	0.71
Punjab							
	Private	11.82	82.85	85.97	0.17	6.39	29.24
	Rented	2.98	15.92	11.39	0.14	0.48	5.02
	Government	83.99	0.60	1.72	98.99	92.51	64.75
	Government school in rent free building	0.85	0.11	0.19	0.61	0.48	0.60
Rajasthan							
	Private	11.32	41.39	65.73	11.43	8.87	28.49
	Rented	0.97	0.83	0.25	3.21	1.24	0.86
	Government	82.98	56.58	33.72	81.79	87.97	67.90
	Government school in rent free building	2.24	0.81	0.20	2.50	1.49	1.43

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Sikkim							
	Private	19.19	22.19	15.14	0.00	0.00	19.23
	Rented	12.04	14.69	2.70	0.00	28.57	11.41
	Government	67.37	62.50	81.62	100.00	71.43	68.30
	Government school in rent free building	0.42	0.00	0.54	0.00	0.00	0.33
Tamil Nadu							
	Private	27.95	20.62	90.28	73.53	29.01	31.07
	Rented	5.25	1.39	7.59	5.88	1.07	4.18
	Government	66.35	77.65	1.89	17.65	68.59	64.21
	Government school in rent free building	0.41	0.31	0.18	2.94	1.27	0.49
Tripura							
	Private	2.46	2.71	8.95	0.00	10.67	3.86
	Rented	0.35	0.00	0.00	0.00	0.00	0.18
	Government	96.48	97.14	90.56	100.00	86.67	95.42
	Government school in rent free building	0.57	0.08	0.49	0.00	2.67	0.45
Uttar Pradesh							
	Private	23.41	82.40	79.93	24.72	83.10	27.52
	Rented	4.56	12.88	7.70	2.34	2.52	4.32
	Government	70.73	3.14	8.79	71.63	11.06	66.82
	Government school in rent free building	0.61	0.54	1.63	0.71	2.34	0.66
Uttarakhand							
	Private	12.54	65.70	72.21	18.43	15.18	16.77
	Rented	8.30	29.48	13.65	5.07	0.46	7.90
	Government	73.45	1.81	7.94	71.72	78.53	69.86
	Government school in rent free building	0.44	0.36	0.99	0.63	1.10	0.54
West Bengal							
	Private	76.72	73.42	69.24	70.78	77.88	76.35
	Rented	4.58	20.83	14.46	2.29	1.88	4.47
	Government	18.64	5.57	16.18	26.90	20.24	19.13
	Government school in rent free building	0.02	0.10	0.12	0.04	0.00	0.02

State/UT	Building Status	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher Secon.	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
All States							
	Private	18.58	23.69	65.07	20.31	34.83	22.61
	Rented	4.72	11.03	12.01	1.99	13.95	6.78
	Government	72.94	64.28	21.15	74.85	48.47	67.63
	Government school in rent free building	1.25	0.54	1.07	1.78	1.96	1.21

Table 2: Percentage Distribution of School by Type of School Building (2011-2012)

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
A&N Islands							
	Pucca	36.65	41.89	0.00	0.00	51.96	41.22
	Partially Pucca	15.94	9.46	0.00	0.00	4.90	12.18
	Kuccha	11.16	1.35	0.00	0.00	0.98	7.03
	Tent	1.99	2.70	0.00	0.00	0.98	1.87
	Multiple Type	8.37	40.54	0.00	0.00	35.29	20.37
	No Response	25.90	4.05	0.00	0.00	5.88	17.33
Andhra Pradesh							
	Pucca	61.54	50.42	49.09	0.00	52.30	57.92
	Partially Pucca	2.58	4.11	3.87	0.00	2.73	2.87
	Kuccha	1.02	0.61	0.46	0.00	0.29	0.81
	Tent	0.16	0.04	0.00	0.00	0.02	0.11
	Multiple Type	8.86	14.22	9.41	0.00	15.11	10.86
	No Response	25.85	30.60	37.18	0.00	29.55	27.43
Arunachal Pradesh							
	Pucca	16.46	33.37	35.94	28.	48.48	21.85
	Partially Pucca	21.73	25.41	18.43	18.42	18.18	22.31

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Kuccha	34.97	4.18	0.92	0.00	3.03	25.51
	Tent	8.36	0.31	0.46	0.00	0.00	5.95
	Multiple Type	5.93	29.49	30.41	10.53	22.73	12.77
	No Response	12.55	7.24	13.82	42.11	7.58	11.62
Assam							
	Pucca	37.08	29.43	25.46	26.	40.95	35.01
	Partially Pucca	16.45	15.07	15.48	23.86	22.85	17.92
	Kuccha	22.11	14.10	15.58	25.	7.28	21.93
	Tent	0.34	0.19	0.00	0.15	0.00	0.29
	Multiple Type	15.95	28.59	19.14	17.98	25.38	16.98
	No Response	8.07	12.62	24.34	5.61	3.54	7.87
Bihar							
	Pucca	50.92	65.81	41.72	58.	34.69	56.93
	Partially Pucca	1.97	2.61	7.19	4.68	9.18	2.29
	Kuccha	0.60	0.56	3.79	0.00	1.02	0.61
	Tent	0.34	0.03	0.00	0.00	0.00	0.21
	Multiple Type	6.46	27.40	22.75	31.06	28.57	15.22
	No Response	39.70	3.58	24.55	5.53	26.53	24.74
Chandigarh							
	Pucca	78.57	82.76	94.29	0.00	100.00	91.44
	Partially Pucca	0.00	0.00	0.00	0.00	0.00	0.00
	Kuccha	0.00	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	0.00	3.45	2.14	0.00	0.00	2.14
	No Response	21.43	13.79	3.57	0.00	0.00	6.42
Chhattisgarh							
	Pucca	54.52	43.64	54.20	62.	32.89	56.15
	Partially Pucca	7.74	7.21	4.80	2.65	5.26	6.31
	Kuccha	1.25	2.47	0.80	0.28	0.66	1.04

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Tent	0.09	0.00	0.20	0.06	0.00	0.08
	Multiple Type	7.80	5.26	7.60	3.66	5.26	6.56
	No Response	28.61	41.42	32.40	30.52	55.92	29.87
D&N Haveli							
	Pucca	22.28	23.08	75.00	0.00	0.00	23.76
	Partially Pucca	51.98	25.27	0.00	0.00	0.00	42.24
	Kuccha	0.00	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	6.44	48.35	12.50	0.00	100.00	19.47
	No Response	19.31	3.30	12.50	100.00	0.00	14.52
Daman & Diu							
	Pucca	70.49	75.00	87.50	96.	90.91	79.65
	Partially Pucca	0.00	0.00	0.00	0.00	0.00	0.00
	Kuccha	0.00	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	0.00	0.00	0.00	0.00	0.00	0.00
	No Response	29.51	25.00	12.50	4.00	9.09	20.35
Delhi							
	Pucca	51.97	81.87	68.05	51.	35.29	56.98
	Partially Pucca	5.15	1.34	3.61	17.07	20.49	6.43
	Kuccha	4.41	0.00	0.55	14.	5.24	3.17
	Tent	0.16	0.00	0.00	0.00	0.00	0.08
	Multiple Type	14.78	1.72	20.09	7.32	28.97	16.52
	No Response	23.55	15.08	7.69	9.76	10.02	16.82
Goa							
	Pucca	86.61	64.04	84.94	81.	88.44	84.89
	Partially Pucca	0.59	0.00	1.81	1.22	1.36	0.80
	Kuccha	0.39	0.00	0.00	0.00	0.00	0.27
	Tent	0.00	0.00	0.00	0.00	0.00	0.00

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Multiple Type	0.59	2.25	0.00	1.22	2.04	0.80
	No Response	11.83	33.71	13.25	15.85	8.16	13.25
Gujarat							
	Pucca	71.56	77.40	81.82	73.	81.82	75.80
	Partially Pucca	11.00	3.71	0.70	1.64	0.00	5.66
	Kuccha	0.17	0.19	0.00	0.00	0.00	0.18
	Tent	0.03	0.01	0.00	0.00	0.00	0.01
	Multiple Type	7.03	11.41	1.40	0.66	0.00	10.10
	No Response	10.22	7.29	16.08	24.34	18.18	8.24
Haryana							
	Pucca	90.24	52.30	55.79	80.	94.70	80.95
	Partially Pucca	0.09	0.00	0.03	0.08	0.03	0.06
	Kuccha	0.01	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.03	0.00
	Multiple Type	1.06	0.20	0.27	0.68	0.78	0.77
	No Response	8.59	47.50	43.92	19.16	4.46	18.20
Himachal Pradesh							
	Pucca	63.88	70.89	82.49	78.	61.83	66.94
	Partially Pucca	8.68	2.51	1.24	8.22	7.17	7.73
	Kuccha	3.24	1.39	0.29	2.99	3.70	3.01
	Tent	0.01	0.00	0.00	0.00	0.00	0.01
	Multiple Type	21.55	5.01	5.84	5.85	26.14	18.43
	No Response	2.65	20.19	10.14	4.48	1.17	3.88
Jammu & Kashmir							
	Pucca	47.03	62.51	75.72	45.	68.02	55.71
	Partially Pucca	19.15	19.55	7.92	10.85	8.33	17.98
	Kuccha	10.99	4.01	0.34	1.55	1.35	7.25
	Tent	0.19	0.24	0.00	0.00	0.00	0.19
	Multiple Type	2.28	11.46	13.86	1.55	20.27	6.99

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	No Response	20.36	2.23	2.17	40.31	2.03	11.88
Jharkhand							
	Pucca	59.79	76.83	49.52	37.	56.16	64.91
	Partially Pucca	0.91	1.31	2.09	4.17	2.26	1.12
	Kuccha	1.18	0.63	0.75	6.25	0.31	0.96
	Tent	0.38	0.01	0.00	0.00	0.00	0.23
	Multiple Type	2.07	11.91	14.08	20.83	9.24	6.02
	No Response	35.67	9.32	33.57	31.25	32.03	26.75
Karnataka							
	Pucca	77.48	80.12	74.09	51.	73.14	77.61
	Partially Pucca	2.35	2.31	2.37	1.87	2.49	2.35
	Kuccha	1.19	0.59	0.34	0.47	0.69	0.82
	Tent	0.35	0.09	0.08	0.00	0.18	0.20
	Multiple Type	5.98	11.15	4.67	1.41	4.65	7.88
	No Response	12.64	5.76	18.45	45.20	18.85	11.14
Kerala							
	Pucca	61.40	45.33	31.48	63.	58.29	53.72
	Partially Pucca	3.94	2.18	0.89	4.38	2.09	2.99
	Kuccha	0.23	0.07	0.00	0.15	0.05	0.14
	Tent	0.01	0.00	0.00	0.00	0.05	0.01
	Multiple Type	12.88	23.01	14.73	18.69	18.00	15.80
	No Response	21.54	29.42	52.89	13.14	21.52	27.34
Lakshadweep							
	Pucca	5.00	30.00	50.00	50.	25.00	21.74
	Partially Pucca	15.00	20.00	0.00	0.00	0.00	10.87
	Kuccha	10.00	0.00	0.00	0.00	0.00	4.35
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	45.00	50.00	16.67	50.00	75.00	47.83
	No Response	25.00	0.00	33.33	0.00	0.00	15.22

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Madhya Pradesh							
	Pucca	81.02	54.98	62.79	84.	65.28	78.36
	Partially Pucca	3.23	4.30	3.50	1.87	6.74	3.08
	Kuccha	0.09	0.52	0.12	0.03	0.52	0.13
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	6.34	3.51	3.34	4.11	5.18	5.48
	No Response	9.32	36.69	30.25	9.52	22.28	12.95
Maharashtra							
	Pucca	71.89	76.68	66.82	30.	75.11	73.06
	Partially Pucca	4.19	2.93	5.30	3.95	6.03	4.28
	Kuccha	0.83	0.49	0.47	2.63	1.52	0.94
	Tent	0.12	0.02	0.05	0.00	0.05	0.07
	Multiple Type	6.83	12.91	7.70	1.32	8.94	8.68
	No Response	16.15	6.96	19.66	61.84	8.36	12.97
Manipur							
	Pucca	8.42	6.60	19.48	6.38	9.55	9.96
	Partially Pucca	35.31	29.91	26.07	25.53	40.76	33.00
	Kuccha	36.78	32.98	15.95	46.	12.10	31.86
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	7.97	17.79	28.22	8.51	33.76	13.96
	No Response	11.52	12.73	10.28	12.77	3.82	11.23
Meghalaya							
	Pucca	22.47	33.18	54.92	20.	31.47	22.50
	Partially Pucca	45.48	19.63	12.30	29.42	25.87	40.45
	Kuccha	12.52	6.54	3.28	5.87	2.80	10.54
	Tent	0.89	0.93	0.00	0.19	0.00	0.70
	Multiple Type	3.04	11.21	9.84	3.58	9.09	3.45
	No Response	15.60	28.50	19.67	40.67	30.77	22.37
Mizoram							

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Pucca	1.29	2.77	0.00	1.37	0.00	1.47
	Partially Pucca	56.58	32.92	7.69	52.79	20.00	52.03
	Kuccha	5.74	6.46	0.00	5.18	0.00	5.55
	Tent	0.19	0.00	0.00	0.10	0.00	0.14
	Multiple Type	0.84	0.62	0.00	0.98	0.00	0.85
	No Response	35.35	57.23	92.31	39.59	80.00	39.97
Nagaland							
	Pucca	18.65	22.30	43.12	12.	29.17	20.43
	Partially Pucca	43.58	40.52	25.69	23.40	47.92	37.48
	Kuccha	8.64	16.36	2.14	1.67	11.11	7.25
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	7.70	10.78	22.63	3.20	10.42	8.55
	No Response	21.42	10.04	6.42	59.33	1.39	26.28
Odisha							
	Pucca	35.82	28.69	48.02	37.	37.04	34.47
	Partially Pucca	12.09	6.31	6.53	20.28	14.85	11.36
	Kuccha	1.15	0.36	0.28	5.53	2.77	1.39
	Tent	0.04	0.00	0.00	0.02	0.00	0.03
	Multiple Type	32.70	62.32	38.27	33.17	40.56	41.13
	No Response	18.21	2.32	6.90	3.51	4.78	11.63
Puducherry							
	Pucca	71.88	60.75	67.12	0.00	83.52	70.21
	Partially Pucca	2.43	6.54	3.65	0.00	1.10	3.26
	Kuccha	0.00	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	16.67	21.50	26.03	0.00	13.19	19.86
	No Response	9.03	11.21	3.20	0.00	2.20	6.67
Punjab							
	Pucca	89.67	71.15	75.43	69.	91.89	83.83

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Partially Pucca	0.45	0.48	0.25	0.17	0.59	0.40
	Kuccha	0.01	0.00	0.00	0.00	0.00	0.00
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	1.42	0.33	0.42	1.03	1.89	1.17
	No Response	8.46	28.03	23.90	28.98	5.62	14.60
Rajasthan							
	Pucca	84.88	80.47	84.09	80.	93.57	83.67
	Partially Pucca	0.42	0.89	0.64	0.36	0.18	0.61
	Kuccha	0.23	0.20	0.07	0.00	0.00	0.19
	Tent	0.02	0.00	0.00	0.00	0.00	0.01
	Multiple Type	1.16	2.69	3.38	0.36	1.75	2.01
	No Response	13.28	15.75	11.82	19.29	4.49	13.52
Sikkim							
	Pucca	37.76	26.93	22.70	100.	14.29	32.58
	Partially Pucca	20.84	13.31	1.08	0.00	14.29	15.84
	Kuccha	5.73	4.64	0.54	0.00	14.29	4.71
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	18.18	46.13	69.73	0.00	28.57	33.31
	No Response	17.48	8.98	5.95	0.00	28.57	13.57
Tamil Nadu							
	Pucca	52.29	42.29	75.71	44.	60.49	53.10
	Partially Pucca	16.11	5.12	1.44	14.71	2.11	11.33
	Kuccha	0.01	0.00	0.00	0.00	0.00	0.01
	Tent	0.00	0.00	0.00	0.00	0.00	0.00
	Multiple Type	23.05	46.44	11.16	20.59	23.38	26.54
	No Response	8.54	6.15	11.69	20.59	14.02	9.03
Tripura							
	Pucca	40.55	47.05	45.15	0.00	69.33	43.72
	Partially Pucca	9.69	10.31	9.45	0.00	9.33	9.82

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Kuccha	4.76	1.55	0.49	0.00	1.33	3.01
	Tent	0.04	0.00	0.00	0.00	0.00	0.02
	Multiple Type	19.43	39.22	43.44	0.00	20.00	29.47
	No Response	25.53	1.86	1.47	100.00	0.00	13.96
Uttar Pradesh							
	Pucca	74.82	58.42	56.99	65.	60.94	71.21
	Partially Pucca	0.72	0.97	1.08	0.41	0.47	0.64
	Kuccha	0.10	0.13	0.00	0.01	0.00	0.07
	Tent	0.02	0.01	0.00	0.00	0.00	0.01
	Multiple Type	1.29	3.07	2.37	1.43	2.15	1.42
	No Response	23.07	37.41	39.57	32.46	36.44	26.64
Uttarakhand							
	Pucca	82.43	73.72	65.10	74.	83.86	80.70
	Partially Pucca	4.07	0.96	0.25	2.63	1.09	3.37
	Kuccha	0.16	0.24	0.00	0.05	0.18	0.15
	Tent	0.02	0.12	0.00	0.00	0.00	0.02
	Multiple Type	2.91	2.87	1.49	1.96	10.12	3.41
	No Response	10.40	22.10	33.17	20.41	4.74	12.36
West Bengal							
	Pucca	48.72	41.07	56.33	9.25	76.13	48.89
	Partially Pucca	6.14	5.85	2.83	1.08	1.05	5.29
	Kuccha	1.38	3.36	0.49	0.51	0.08	1.22
	Tent	0.06	0.00	0.00	0.03	0.04	0.05
	Multiple Type	14.55	3.74	7.26	1.80	20.37	14.13
	No Response	29.15	45.97	33.09	87.33	2.32	30.42
All States							
	Pucca	63.75	66.19	67.30	62.	66.45	64.36
	Partially Pucca	5.81	3.84	2.98	4.63	4.30	5.11
	Kuccha	2.39	0.76	0.74	2.36	0.91	1.91

State/UT	Building Type	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Tent	0.14	0.03	0.01	0.02	0.04	0.09
	Multiple Type	8.44	15.97	8.49	4.60	14.30	9.86
	No Response	19.47	13.21	20.48	26.09	14.00	18.66

Table 3: Percentage Distribution of School by Condition of School Building (2011-2012)

State/UT	Condition of Classroom	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
A & N Islands							
	Good Condition	87.60	83.66	0.00	0.00	87.79	86.98
	Need Minor Repair	9.72	9.16	0.00	0.00	8.86	9.14
	Need Major Repair	2.69	7.18	0.00	0.00	3.35	3.89
Andhra Pradesh							
	Good Condition	79.53	86.40	93.67	0.00	87.55	83.92
	Need Minor Repair	13.78	9.46	5.28	0.00	8.60	10.99
	Need Major Repair	6.70	4.14	1.05	0.00	3.86	5.09
Arunachal Pradesh							
	Good Condition	54.08	55.04	65.72	65.07	67.34	56.48
	Need Minor Repair	28.88	24.95	20.30	32.19	22.67	26.06
	Need Major Repair	17.04	20.01	13.97	2.74	9.98	17.45
Assam							
	Good Condition	61.77	54.16	62.23	50.29	43.09	57.58
	Need Minor Repair	18.54	22.12	22.57	21.83	30.85	20.75
	Need Major Repair	19.69	23.71	15.21	27.88	26.06	21.67
Bihar							
	Good Condition	74.87	75.58	65.76	70.65	65.99	75.17
	Need Minor Repair	15.71	15.00	21.10	16.93	22.05	15.35
	Need Major Repair	9.42	9.42	13.14	12.42	11.95	9.48

State/UT	Condition of Classroom	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Chandigarh							
	Good Condition	79.84	90.71	92.35	0.00	100.00	91.80
	Need Minor Repair	8.87	8.89	6.60	0.00	0.00	6.92
	Need Major Repair	11.29	0.40	1.05	0.00	0.00	1.28
Chhattisgarh							
	Good Condition	75.48	95.17	97.46	82.72	87.52	80.58
	Need Minor Repair	15.67	4.22	1.93	12.91	9.06	13.06
	Need Major Repair	8.85	0.61	0.61	4.37	3.42	6.36
Dadra & Nagar Haveli							
	Good Condition	73.68	90.02	100.00	0.00	100.00	89.36
	Need Minor Repair	25.00	7.69	0.00	0.00	0.00	9.07
	Need Major Repair	1.32	2.29	0.00	0.00	0.00	1.57
Daman & Diu							
	Good Condition	78.79	94.44	100.00	89.91	88.89	88.11
	Need Minor Repair	12.46	5.56	0.00	10.09	11.11	8.25
	Need Major Repair	8.75	0.00	0.00	0.00	0.00	3.64
Delhi							
	Good Condition	94.30	99.67	97.69	89.19	91.55	96.08
	Need Minor Repair	4.33	0.28	1.86	8.11	6.48	3.03
	Need Major Repair	1.36	0.05	0.45	2.70	1.96	0.89
Goa							
	Good Condition	83.64	92.16	92.95	91.54	86.99	88.09
	Need Minor Repair	13.36	6.56	6.18	6.68	10.60	9.82
	Need Major Repair	3.01	1.28	0.87	1.78	2.41	2.08
Gujarat							
	Good Condition	87.87	89.80	99.23	94.68	100.00	89.65
	Need Minor Repair	8.63	6.50	0.77	5.02	0.00	6.71
	Need Major Repair	3.50	3.71	0.00	0.31	0.00	3.64
Haryana							
	Good Condition	85.34	98.13	98.97	88.41	84.55	91.59
	Need Minor Repair	8.67	1.66	0.78	7.55	9.32	5.16

State/UT	Condition of Classroom	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Need Major Repair	5.98	0.20	0.25	4.03	6.14	3.25
Himachal Pradesh							
	Good Condition	71.66	96.85	97.08	76.07	68.14	79.87
	Need Minor Repair	18.77	2.88	2.67	19.78	23.68	14.28
	Need Major Repair	9.58	0.27	0.25	4.14	8.18	5.84
Jammu & Kashmir							
	Good Condition	73.18	71.57	88.38	76.56	61.79	76.94
	Need Minor Repair	20.69	21.11	8.77	16.67	25.97	17.30
	Need Major Repair	6.12	7.32	2.85	6.77	12.23	5.76
Jharkhand							
	Good Condition	87.49	83.86	90.66	84.21	83.73	85.99
	Need Minor Repair	6.93	8.19	5.08	5.70	8.30	7.36
	Need Major Repair	5.59	7.95	4.26	10.09	7.96	6.66
Karnataka							
	Good Condition	78.22	79.32	98.73	89.57	85.07	82.34
	Need Minor Repair	14.84	13.29	1.00	7.38	11.49	11.81
	Need Major Repair	6.95	7.39	0.26	3.05	3.44	5.85
Kerala							
	Good Condition	74.55	80.54	88.75	80.27	83.48	81.44
	Need Minor Repair	21.22	15.07	8.39	17.63	12.95	14.83
	Need Major Repair	4.23	4.39	2.85	2.10	3.57	3.73
Lakshadweep							
	Good Condition	85.19	77.36	90.48	100.00	84.34	84.79
	Need Minor Repair	4.63	20.75	9.52	0.00	15.66	11.97
	Need Major Repair	10.19	1.89	0.00	0.00	0.00	3.24
Madhya Pradesh							
	Good Condition	76.84	94.49	96.79	83.26	93.88	83.32
	Need Minor Repair	17.04	5.10	3.01	13.18	5.26	12.72
	Need Major Repair	6.12	0.41	0.20	3.56	0.87	3.96
Maharashtra							
	Good Condition	88.36	86.13	93.34	97.09	92.59	89.14

State/UT	Condition of Classroom	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Need Minor Repair	6.80	8.07	4.89	2.33	5.77	6.81
	Need Major Repair	4.84	5.79	1.77	0.58	1.64	4.05
Manipur							
	Good Condition	44.26	66.24	80.80	34.29	79.67	70.82
	Need Minor Repair	31.60	19.74	13.82	51.43	13.69	18.54
	Need Major Repair	24.14	14.02	5.38	14.29	6.64	10.64
Meghalaya							
	Good Condition	56.17	69.32	77.76	64.57	64.91	61.11
	Need Minor Repair	28.76	21.86	16.02	25.21	27.77	26.43
	Need Major Repair	15.08	8.82	6.22	10.22	7.33	12.46
Mizoram							
	Good Condition	59.03	90.81	91.23	68.82	100.00	75.37
	Need Minor Repair	28.57	9.08	8.77	21.49	0.00	18.24
	Need Major Repair	12.40	0.11	0.00	9.69	0.00	6.40
Nagaland							
	Good Condition	60.97	68.10	84.64	59.95	44.75	70.54
	Need Minor Repair	29.18	21.68	13.21	28.70	23.74	21.60
	Need Major Repair	9.85	10.21	2.15	11.35	31.51	7.86
Odisha							
	Good Condition	60.26	62.02	81.00	49.01	43.36	59.20
	Need Minor Repair	21.26	20.29	12.32	25.02	28.47	21.59
	Need Major Repair	18.48	17.69	6.68	25.98	28.17	19.22
Puducherry							
	Good Condition	92.13	93.66	98.91	0.00	87.25	95.18
	Need Minor Repair	3.36	4.64	0.68	0.00	7.72	2.74
	Need Major Repair	4.51	1.70	0.41	0.00	5.03	2.08
Punjab							
	Good Condition	80.81	97.60	98.90	84.65	83.08	90.57
	Need Minor Repair	13.30	2.14	0.96	11.54	10.10	6.55
	Need Major Repair	5.89	0.27	0.13	3.81	6.82	2.88
Rajasthan							

State/UT	Condition of Classroom	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
	Good Condition	73.59	85.69	89.89	85.65	69.60	82.52
	Need Minor Repair	17.35	9.84	6.96	10.24	19.79	11.75
	Need Major Repair	9.06	4.47	3.15	4.11	10.62	5.73
Sikkim							
	Good Condition	52.37	59.90	58.11	75.00	66.13	56.75
	Need Minor Repair	30.51	24.08	26.82	25.00	33.87	27.36
	Need Major Repair	17.12	16.02	15.07	0.00	0.00	15.89
Tamil Nadu							
	Good Condition	92.00	91.20	99.64	94.74	92.91	93.82
	Need Minor Repair	6.08	6.66	0.31	3.68	5.54	4.73
	Need Major Repair	1.92	2.14	0.05	1.58	1.55	1.45
Tripura							
	Good Condition	71.39	67.08	67.40	100.00	60.74	68.47
	Need Minor Repair	16.95	18.57	19.88	0.00	25.92	18.62
	Need Major Repair	11.67	14.36	12.71	0.00	13.34	12.91
Uttar Pradesh							
	Good Condition	82.18	90.27	93.87	85.33	90.71	84.01
	Need Minor Repair	13.78	8.63	4.94	11.56	7.25	12.51
	Need Major Repair	4.04	1.11	1.19	3.10	2.04	3.48
Uttarakhand							
	Good Condition	68.34	94.98	97.03	71.27	63.86	73.03
	Need Minor Repair	17.19	4.18	2.63	17.34	21.64	15.41
	Need Major Repair	14.47	0.84	0.33	11.39	14.50	11.56
West Bengal							
	Good Condition	67.41	78.22	85.35	68.02	65.50	67.63
	Need Minor Repair	16.99	13.35	8.33	15.53	18.63	17.10
	Need Major Repair	15.60	8.43	6.32	16.45	15.86	15.27
All States							
	Good Condition	77.87	83.84	93.24	81.41	80.70	81.86
	Need Minor Repair	14.53	10.42	4.73	13.17	12.11	11.91
	Need Major Repair	7.60	5.74	2.03	5.41	7.19	6.23

Table 4: Percentage Distribution of School having Boundary Wall (2011-12)

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
A & N Islands	49.40	38.67	0.00	0.00	46.08	46.73
Andhra Pradesh	46.61	70.91	86.81	0.00	80.40	56.92
Arunachal Pradesh	22.01	52.91	71.10	65.79	83.33	32.77
Assam	21.96	45.47	72.10	18.52	63.91	24.05
Bihar	41.33	68.05	62.08	71.61	60.20	52.49
Chandigarh	100.00	100.00	100.00	0.00	100.00	100.0
Chhattisgarh	50.06	82.67	89.20	49.28	72.37	51.79
D & N Haveli	24.26	69.23	100.00	100.0	100.00	40.26
Daman & Diu	86.89	87.50	100.00	96.00	90.91	90.27
Delhi	97.79	97.33	99.37	95.12	99.38	98.32
Goa	71.85	86.52	82.53	75.61	68.71	73.69
Gujarat	77.96	93.12	93.71	93.09	100.00	89.01
Haryana	92.92	97.54	98.96	88.95	97.63	94.56
Himachal Pradesh	41.24	66.16	73.97	38.59	57.24	45.85
Jammu & Kashmir	18.78	35.29	73.83	37.98	59.73	30.83
Jharkhand	14.88	31.10	64.88	58.33	64.31	23.47
Karnataka	59.53	77.07	90.78	73.77	69.02	69.73
Kerala	74.50	82.67	86.06	71.28	85.34	77.48
Lakshadweep	35.00	40.00	66.67	100.0	37.50	43.48
Madhya Pradesh	37.00	83.47	90.90	36.94	88.60	43.44
Maharashtra	48.74	69.51	80.87	75.00	70.55	59.00
Manipur	14.18	41.56	71.56	46.81	63.69	30.53
Meghalaya	14.02	58.88	82.79	17.92	49.65	16.81
Mizoram	59.42	52.31	76.92	65.49	80.00	60.82
Nagaland	67.56	71.85	81.96	37.19	54.17	62.26
Odisha	55.12	72.96	83.44	62.19	68.01	61.94

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Puducherry	83.68	94.44	92.27	0.00	98.90	89.96
Punjab	94.94	97.32	98.02	90.30	95.09	95.24
Rajasthan	59.27	87.02	93.60	89.64	93.17	75.53
Sikkim	20.78	34.98	44.39	100.0	28.57	28.18
Tamil Nadu	68.08	73.24	96.36	79.41	81.33	72.65
Tripura	5.18	8.42	37.62	0.00	57.33	12.86
Uttar Pradesh	61.32	86.88	89.57	56.91	91.92	61.75
Uttarakhand	80.93	84.25	95.79	80.63	64.22	79.68
West Bengal	30.63	65.74	78.55	25.26	69.30	34.87
All States	48.57	74.11	88.16	49.12	76.63	56.89

Table 5: Percentage Distribution of School having Drinking Water Facility (2011-12)

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary and Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
A & N Islands	96.05	92.06	0.00	0.00	98.89	96.06
Andhra Pradesh	83.47	89.45	99.68	0.00	91.72	85.37
Arunachal Pradesh	70.62	89.39	91.39	94.59	96.72	75.83
Assam	85.74	96.31	100.00	90.30	96.73	86.89
Bihar	88.74	99.05	95.45	99.56	98.86	92.95
Chandigarh	100.00	100.00	100.00	0.00	100.00	100.00
Chhattisgarh	93.69	97.53	100.00	91.73	90.79	93.08
D & N Haveli	97.87	100.00	100.00	100.	100.00	98.55
Daman & Diu	100.00	100.00	100.00	100.	100.00	100.00
Delhi	100.00	100.00	100.00	100.	100.00	100.00
Goa	99.43	98.31	100.00	100.	100.00	99.23
Gujarat	99.97	99.99	100.00	100.	100.00	99.99

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary and Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Haryana	99.28	94.74	100.00	99.19	99.84	99.37
Himachal Pradesh	98.65	100.00	100.00	97.67	99.53	98.63
Jammu & Kashmir	75.15	84.02	94.83	88.28	92.17	79.58
Jharkhand	87.21	94.66	97.92	96.30	96.19	90.00
Karnataka	99.38	99.74	100.00	99.13	98.01	99.40
Kerala	97.65	99.49	97.62	98.77	99.37	94.81
Lakshadweep	100.00	100.00	100.00	100.	100.00	100.00
Madhya Pradesh	97.87	98.67	100.00	97.31	100.00	97.73
Maharashtra	90.38	94.87	98.02	100.	97.77	92.18
Manipur	93.48	96.88	99.30	100.	100.00	94.51
Meghalaya	61.98	73.68	87.50	52.00	82.35	59.20
Mizoram	89.92	87.14	100.00	91.05	100.00	90.00
Nagaland	65.63	89.19	93.75	42.60	65.49	59.94
Odisha	92.93	97.46	97.94	96.37	97.98	94.66
Puducherry	100.00	100.00	100.00	0.00	100.00	100.00
Punjab	99.99	100.00	99.62	100.	99.97	99.97
Rajasthan	91.97	95.74	96.03	98.80	96.97	93.74
Sikkim	93.50	98.11	99.37	100.	100.00	95.68
Tamil Nadu	100.00	100.00	100.00	100.	100.00	100.00
Tripura	66.35	77.27	94.57	100.	96.97	74.90
Uttar Pradesh	99.19	98.85	100.00	94.94	100.00	97.88
Uttarakhand	95.69	100.00	100.00	93.47	94.35	95.19
West Bengal	97.86	94.17	98.77	91.12	99.40	97.57
All States	93.28	96.51	97.09	93.89	97.11	94.10

Table 6: Percentage distribution of schools having girls Toilet facility 2011-2012

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	Functional Girls Toilet
A & N Islands	72.91	90.67	0.00	0.00	98.04	82.0	90.88
Andhra Pradesh	51.39	76.62	92.10	0.00	83.10	61.3	46.89
Arunachal Pradesh	24.09	68.13	84.72	78.9	87.88	38.5	72.63
Assam	49.02	67.91	71.44	49.7	67.90	50.5	80.43
Bihar	41.31	67.61	48.69	78.2	64.95	52.2	77.86
Chandigarh	100.00	100.00	100.00	0.00	100.00	100.00	98.92
Chhattisgarh	48.94	76.50	93.17	60.2	66.91	53.7	78.06
D & N Haveli	53.47	83.52	100.00	100.0	100.00	64.0	91.24
Daman & Diu	93.44	100.00	100.00	95.4	100.00	95.4	95.24
Delhi	98.64	100.00	100.00	100.0	100.00	99.3	99.01
Goa	74.58	88.76	94.44	96.2	92.41	80.4	91.02
Gujarat	99.55	99.70	100.00	100.0	100.00	99.6	97.80
Haryana	91.78	97.00	98.96	85.2	97.98	93.5	94.07
Himachal Pradesh	95.14	91.36	98.56	97.6	99.24	96.0	86.68
Jammu & Kashmir	15.02	43.14	83.17	51.2	71.02	32.7	75.82
Jharkhand	63.64	74.46	82.02	56.5	75.05	68.2	83.74
Karnataka	96.56	97.84	98.31	96.6	95.73	97.0	98.57
Kerala	72.14	87.93	88.93	88.0	95.20	80.7	85.19
Lakshadweep	65.00	90.00	66.67	100.0	100.00	78.2	88.89
Madhya Pradesh	75.60	79.69	92.97	74.9	92.26	76.2	80.43
Maharashtra	68.48	84.99	93.07	92.1	88.36	77.3	96.92
Manipur	85.97	84.20	95.71	55.3	90.38	87.1	87.54
Meghalaya	34.82	62.62	95.76	37.4	66.67	36.8	75.24
Mizoram	72.58	68.92	96.15	83.3	80.00	76.1	84.78
Nagaland	59.34	83.70	93.27	35.9	67.83	59.9	60.50
Odisha	29.30	52.60	68.57	45.6	68.67	41.1	60.16

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary& Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	Functional Girls Toilet
Puducherry	95.74	100.00	99.53	0.00	97.37	97.7	99.25
Punjab	82.91	85.27	95.61	90.9	97.44	87.8	97.84
Rajasthan	93.18	97.25	98.49	96.7	97.32	95.5	93.61
Sikkim	72.32	91.90	96.77	100.0	100.00	81.8	92.62
Tamil Nadu	65.83	90.62	96.07	79.6	89.24	75.2	95.08
Tripura	29.56	68.62	82.06	100.0	85.29	51.1	82.87
Uttar Pradesh	80.63	86.70	87.42	81.8	85.23	81.3	83.54
Uttarakhand	75.03	87.08	94.18	79.9	86.40	77.6	82.23
West Bengal	49.80	72.85	85.25	53.2	95.72	54.7	89.05
All States	65.40	83.02	93.12	73.1	88.18	72.1	84.68

Table 7: Percentage Distribution of schools having boys toilet facility 2011-2012

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary&	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	Functional Boys Toilet
A & N Islands	80.48	92.00	0.00	0.00	98.02	86.65	83.51
Andhra Pradesh	70.83	83.46	86.07	0.00	80.67	74.63	21.57
Arunachal Pradesh	51.89	80.04	91.16	42.86	11.41	51.64	41.54
Assam	56.17	75.37	83.90	51.57	76.27	56.88	41.35
Bihar	59.05	86.35	65.73	82.40	77.42	70.31	51.37
Chandigarh	100.00	100.00	100.00	0.00	100.00	100.00	98.91
Chhattisgarh	51.05	75.48	91.38	58.20	69.01	54.56	71.00
D & N Haveli	69.31	87.91	100.00	0.00	100.00	75.83	78.17
Daman & Diu	98.36	100.00	100.00	100.00	100.00	99.09	89.91
Delhi	100.00	100.00	100.00	100.00	100.00	100.00	98.81
Goa	82.76	92.05	96.89	98.77	95.92	86.98	75.83
Gujarat	54.27	84.81	90.65	93.21	100.00	76.36	93.68

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary&	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	Functional Boys Toilet
Haryana	92.04	98.33	99.28	80.01	92.82	92.65	87.28
Himachal Pradesh	76.69	95.26	98.37	79.13	89.07	80.58	82.52
Jammu & Kashmir	32.50	64.42	88.79	52.63	81.11	50.22	42.52
Jharkhand	71.38	81.63	86.13	61.90	68.41	75.36	71.44
Karnataka	97.86	98.16	98.42	96.50	95.64	97.66	95.84
Kerala	87.83	87.20	86.12	91.96	90.39	87.97	74.09
Lakshadweep	85.00	90.00	83.33	100.00	100.00	89.13	78.05
Madhya Pradesh	90.59	91.23	96.60	85.21	93.85	89.67	66.50
Maharashtra	90.96	95.68	94.90	93.10	92.08	92.49	93.43
Manipur	91.16	93.98	98.61	91.30	97.95	93.10	81.82
Meghalaya	58.69	80.09	97.46	60.52	83.21	60.12	45.27
Mizoram	70.50	84.31	96.15	72.38	80.00	72.93	27.60
Nagaland	76.03	92.59	96.31	40.25	77.78	71.76	37.82
Odisha	74.87	83.51	76.42	72.28	72.08	76.65	23.26
Puducherry	98.58	100.00	98.62	0.00	95.95	98.51	95.78
Punjab	96.79	98.29	99.20	97.41	98.46	97.59	79.46
Rajasthan	67.72	84.39	90.45	76.67	81.60	77.22	91.83
Sikkim	93.02	98.75	97.30	100.00	100.00	95.20	57.09
Tamil Nadu	84.07	86.32	96.00	88.06	80.75	84.93	72.14
Tripura	69.40	81.19	94.58	100.00	92.19	77.69	35.70
Uttar Pradesh	87.85	88.51	91.76	87.51	87.60	87.80	65.65
Uttarakhand	93.46	95.57	96.07	91.50	92.44	93.17	63.02
West Bengal	85.80	87.16	89.23	67.60	94.15	85.44	46.30
All States	78.17	87.27	93.02	79.53	85.94	81.14	65.87

Table 8: Percentage distribution of school having ramps 2011-12

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
A & N Islands	17.93	26.67	0.00	0.00	28.43	21.96
Andhra Pradesh	16.98	25.38	16.69	0.00	24.37	19.6
Arunachal Pradesh	3.65	6.93	9.17	13.16	7.58	4.81
Assam	50.58	52.28	5.60	37.25	13.01	46.35
Bihar	45.06	75.78	21.96	77.97	35.71	57.51
Chandigarh	21.43	44.83	49.29	0.00	50.00	46.52
Chhattisgarh	40.01	17.94	21.60	45.17	24.34	40.17
D & N Haveli	15.84	31.87	12.50	100.0	0.00	20.79
Daman & Diu	49.18	50.00	12.50	68.00	45.45	50.44
Delhi	60.92	52.00	70.17	60.98	84.92	65.4
Goa	46.53	55.06	15.06	23.17	23.81	40.03
Gujarat	84.92	81.44	46.85	45.72	27.27	81.98
Haryana	63.80	36.99	44.32	65.37	78.35	60.84
Himachal Pradesh	56.80	11.28	11.29	46.33	64.03	51.7
Jammu & Kashmir	5.84	20.33	18.46	13.95	18.81	12.52
Jharkhand	30.10	50.77	30.62	22.92	11.28	36.56
Karnataka	60.65	72.30	23.84	43.09	27.44	58.76
Kerala	57.72	58.15	40.80	64.14	49.87	54.38
Lakshadweep	45.00	80.00	66.67	0.00	87.50	60.87
Madhya Pradesh	54.55	37.78	48.45	66.77	48.19	55.05
Maharashtra	78.15	75.04	28.51	32.89	21.89	64.96
Manipur	4.86	8.13	11.01	6.38	10.19	6.65
Meghalaya	18.36	10.75	9.84	23.39	16.08	19.4
Mizoram	50.26	8.62	3.85	54.74	0.00	46.61
Nagaland	9.26	8.15	6.73	6.69	5.56	8.22
Odisha	45.62	64.57	34.87	43.71	11.27	46.23

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools
Puducherry	59.72	41.67	36.36	0.00	72.53	51.34
Punjab	76.05	14.54	21.24	86.84	86.53	63.34
Rajasthan	53.24	59.11	55.66	67.86	72.78	56.89
Sikkim	3.77	5.57	10.16	0.00	0.00	5.18
Tamil Nadu	59.18	83.94	22.93	55.88	67.99	62.33
Tripura	51.06	52.40	75.86	0.00	76.00	56.34
Uttar Pradesh	77.87	47.18	47.85	68.78	45.32	73.32
Uttarakhand	47.71	12.89	20.79	42.52	30.58	43.5
West Bengal	48.99	8.59	21.69	15.11	65.06	47.72
All States	53.28	59.96	36.27	58.48	40.19	53.43

Table 9: Percentage distribution of school having playground 2011-12

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary	Upper Primary With	All Schools
A & N Islands	51.79	61.33	0.00	0.00	69.61	57.71
Andhra Pradesh	48.19	66.75	81.22	0.00	81.58	57.45
Arunachal Pradesh	21.36	54.23	75.69	36.84	80.30	32.54
Assam	47.79	53.63	58.04	66.91	76.13	52.40
Bihar	23.06	44.63	48.50	52.97	60.20	32.19
Chandigarh	92.86	86.21	96.43	0.00	100.00	94.65
Chhattisgarh	33.05	72.15	83.60	44.88	69.74	38.67
D & N Haveli	20.79	41.76	100.00	100.	100.00	29.70
Daman & Diu	47.54	62.50	87.50	60.00	63.64	55.75
Delhi	74.48	80.57	92.23	58.54	79.38	80.08
Goa	40.18	59.55	81.93	63.41	65.99	49.64
Gujarat	64.89	77.11	95.10	91.45	100.00	73.97
Haryana	70.64	84.76	91.91	68.82	80.19	76.62
Himachal Pradesh	60.14	95.82	97.03	58.86	84.31	66.63

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary	Upper Primary With	All Schools
Jammu & Kashmir	20.89	44.85	82.77	31.01	64.82	36.29
Jharkhand	26.18	30.89	56.75	62.50	68.21	29.97
Karnataka	49.56	69.91	89.40	77.52	85.62	65.65
Kerala	56.78	70.62	81.06	85.57	86.96	66.42
Lakshadweep	0.00	20.00	16.67	0.00	100.00	23.91
Madhya Pradesh	51.18	84.19	92.19	55.52	90.67	56.73
Maharashtra	52.62	64.13	88.99	80.26	88.96	63.35
Manipur	50.51	58.74	72.48	59.57	83.44	56.91
Meghalaya	32.46	49.53	71.31	41.72	66.43	35.84
Mizoram	36.58	47.08	57.69	43.60	60.00	40.34
Nagaland	35.58	63.33	73.09	27.30	54.86	40.50
Odisha	18.15	29.60	56.95	50.96	71.50	29.65
Puducherry	44.44	72.22	89.09	0.00	72.53	66.20
Punjab	72.46	69.33	83.60	82.01	87.94	76.88
Rajasthan	31.19	52.91	73.49	57.14	67.67	46.27
Sikkim	49.79	75.85	83.96	100.	71.43	61.94
Tamil Nadu	74.87	74.71	98.19	83.82	84.04	77.61
Tripura	49.94	64.76	80.51	100.	85.33	60.34
Uttar Pradesh	77.40	85.47	84.19	78.37	87.15	78.18
Uttarakhand	55.31	81.86	89.60	55.42	55.83	56.93
W est Bengal	28.11	37.40	53.06	35.05	63.52	32.30
All States	48.85	60.64	81.00	64.72	79.28	56.10

Table 10 : Percentage Distribution of Schools Having Kitchen Shed 2011-12

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	% Schools Providing Mid-day Meal (Government & Aided Management)
A & N Islands	17.51	31.75	0.00	0.00	30.43	23.80	94.28
Andhra Pradesh	32.44	63.26	75.08	0.00	8.54	32.98	95.90
Arunachal Pradesh	24.80	46.31	48.30	47.37	31.25	30.52	84.26
Assam	64.02	64.46	8.89	3.35	4.67	49.03	89.87
Bihar	8.83	20.7	6.53	12.4	14.44	13.63	92.48
Chandigarh	0.00	46.6	23.08	0.00	66.67	25.42	93.22
Chhattisgarh	49.88	39.20	54.17	18.51	30.68	40.71	97.08
D & N Haveli	27.55	44.19	33.33	0.00	100.00	32.75	99.65
Daman & Diu	57.14	75.00	33.33	60.00	81.82	60.87	97.83
Delhi	2.00	29.6	14.76	14.2	10.30	6.39	8.66*
Goa	1.04	5.19	10.26	9.88	9.59	3.66	96.97
Gujarat	39.45	47.35	30.77	28.57	25.00	44.83	89.94
Haryana	20.48	20.59	17.78	13.21	15.15	18.18	97.14
Himachal Pradesh	18.67	0.00	23.08	1.80	3.15	13.92	99.41
Jammu & Kashmir	0.79	2.19	5.26	6.25	5.82	1.62	96.90
Jharkhand	23.89	42.68	42.11	23.08	29.31	30.57	97.09
Karnataka	71.94	78.35	29.61	41.80	33.22	68.80	97.16
Kerala	61.91	62.79	62.56	66.04	60.88	61.24	95.82
Lakshadweep	65.00	80.00	50.00	50.00	87.50	69.57	97.83
Madhya Pradesh	66.02	19.44	26.97	25.12	40.85	55.48	97.83
Maharashtra	26.07	34.70	57.33	11.54	31.12	29.24	94.28
Manipur	67.02	67.60	69.54	14.71	23.84	64.52	96.33
Meghalaya	24.68	9.71	14.93	9.85	6.84	20.21	89.43
Mizoram	52.81	16.20	0.00	6.18	0.00	32.78	93.18
Nagaland	67.73	72.97	31.25	34.22	80.28	59.27	74.13
Odisha	20.02	32.98	43.53	7.99	11.78	21.83	94.45
Puducherry	25.30	42.59	36.11	0.00	11.11	26.23	96.59

State/UT	Primary Only	Primary with Upper Primary	Primary with U. Primary & Sec./Higher.Sec	Upper Primary Only	Upper Primary With Sec./Higher.Sec	All Schools	% Schools Providing Mid-day Meal (Government & Aided Management)
Punjab	25.27	5.19	7.61	1.74	2.85	17.43	87.49
Rajasthan	35.22	41.95	45.12	33.20	17.93	36.48	75.41
Sikkim	25.94	36.77	37.72	100.00	42.86	30.86	91.08
Tamil Nadu	92.10	94.60	64.27	94.00	88.20	91.82	97.64
Tripura	43.85	69.70	76.63	0.00	52.00	57.19	99.43
Uttar Pradesh	61.39	8.53	10.04	13.52	6.84	45.55	89.21
Uttarakhand	73.62	22.22	22.50	7.14	6.27	53.79	97.33
West Bengal	56.59	5.43	18.52	4.89	21.70	49.43	86.82
All States	46.30	44.75	40.73	15.06	25.10	40.94	92.06

Note - Source of Data used in Table 1-10 is from Analytical Data Report available on DISE website.

In addition to the SSA's existing guidelines and manuals, the following guidance is being provided to help create safe and sustainable school buildings and enhance environmental friendliness of school buildings:

a. Sustainable School Design

Innovative Design is strongly committed to designing schools that not only embrace the concept of sustainability but are, in themselves, teaching tools for sustainability. Studies have shown that schools incorporating passive solar features, such as daylighting, use less energy, student grades have improved, and attendance is higher.

The school should incorporate environmentally friendly design principles, including:

- Building orientation to increase day lighting and reduce fluorescent lighting
- High-efficiency electric lighting
- Light and motion detectors to monitor energy usage (if viable)
- Solar panels to heat water for the school
- Minimize impervious surface in the landscape
- Rainwater collection to water school lawns
- Native landscaping to reduce water use
- Eco-garden to demonstrate water conservation and aquatic plants and animals (if viable)
- Outdoor teaching spaces
- Use of regionally produced products
- Low-toxic or non-toxic building materials
- Weather station to demonstrate energy and water conservation systems
- Minimized construction waste, and recycling of construction materials, and
- Restoring waterways and vegetation in and around site.

b. Site Selection and Preservation

It is appreciated that from a design perspective, designers are not commonly presented with a choice of sites for a new building to be constructed upon. However, in those situations where a choice is offered it is necessary to consider, again at the earliest possible stage, the wider issues in design terms.

The site may be vulnerable due to possibility of flooding, pollution or vehicular accidents. To ensure safety of students, the following guidance may be of help:

- The site should be at least 5 ft above the 100 years High Flood Level of the nearest water body.

- The site should not be located within 1 km from any industrial estate or any major hazard category industry as per Ministry of Environment and Forest classification.
- The site should not be within 1 km at the downwind side of any red category industry as per the Central Pollution Control Board classification. Wind direction should be taken as annual average wind direction provided by nearest weather station.
- The site should not be abutting National Highways. If unavoidable, then the access to the site should not be directly from the highway.
- The site should not be on or within a distance of 500 m from a municipal/ hazardous waste dumping ground.
- The site should not be on or within a distance of 500 m from a contaminated area declared by State of Central Pollution Control Board.

It is preferable to choose site which is near to:

- Bus stops
- Developed area with where local governmental body is providing water supply, sewage and solid waste facility

c. Use of site features/site planning and landscape design

The design must make use of existing site features. The site features can be appreciated in the form of existing trees, slope, boulders, water body/channel or even presence of good view of natural landscape. As far as possible, such features should be preserved and used as part of design.

- Develop the site in an environmentally sensitive manner.
- Understand and maximize natural site conditions.
- Design the site for easy pedestrian, bicycle, mass transit, and handicap accessibility.
- Provide site protection during construction.

d. Energy Efficient Building Envelope

- Design shall address all radiant energy flows as well as conductive heat gain and loss.
- Select the optimum glazing for each location on the building.
- Provide proper window treatments to maximize winter solar gain and minimize summer overheating.

e. Construction Material

Major amount of energy is consumed by building construction material in manufacturing and transportation.

Use of Recycled Material: Recycling construction material or use of material with recycled content will reduce demand for new material. Maximum use of fly ash can be a major environmental achievement. As per the Fly Ash Notification September 1999 and amended as on August 23rd 2003 fly ash should be used as building construction material, if the project is located with 100km of Thermal Power Station. This can be achieved through following measures:

- RC (reinforced concrete) (including ready-mix concrete) to make use of fly ash by using PPC (Portland pozzolona cement) containing fly ash. A minimum of 15 percent replacement of cement with fly ash in PPC (by weight of the cement used) in the over-all RC for meeting the equivalent strength requirements.
- Use fly ash in Plaster/masonry mortar by employing PPC. Use plaster and/or masonry mortar, which utilizes a minimum 30 percent of fly ash in PPC, in 100 percent wall/ceiling finishes and wall construction, meeting the required structural properties.

Other recycled material can be incorporated in the building by adopting the following measures:

- Use of recycled steel for reinforcement.
- Use of construction waste generated during construction for levelling and land filling instead of soil or murom.
- Use of furnace slag in concrete.
- Use of rejected or thrown away furniture.

In case of retrofitting existing building, emphasis should be on preserving all the structural members in their original form and use the shell of the building, as far as possible, to house the new activities.

Local Material: To reduce the energy consumption in material transport, use of local material is essential. Any material, which is processed within 500 km from the construction site should be considered as local material. As mentioned earlier if there is conflict between relatively maintenance free material to be procured from distance against high maintenance required material available locally, the decision maker should choose material with less maintenance requirement. Use of precast beams, slabs and panels greatly reduces construction waste and hence demand for new material.

Wood: Use of material obtained from rapidly growing trees and shrubs will also reduce pressure on new material. Trees or shrubs that complete their life cycle within 10 years should be considered as rapidly renewable material. Example of such building material is composite panel doors with wheat or cork core.

Wood whenever used in the building must have certificate from Forest Department. The wood should be directly procured from Auction conducted by Forest Department or the chain of custody should be ensured to ascertain that the wood is coming from officially cut wood provided by Forest Department.

f. Indoor Air Quality / VOC free materials

Volatile Organic Compound (VOC) Emissions caused by paints, varnishes, sealants are harmful for occupiers. The building must use paints that emit low or zero VOC. The VOC limits are specified in the table below.

Material and VOC Limits

Type of Material	VOC Limit
Paints	
Non Flat Paints	150 gram/litre
Flat (Mat) Paints	50 gram/litre
Anti Corrosive/ Anti Rust Paint	250 gram/litre
Varnish	350 gram/litre
Adhesives	
Wood Flooring Adhesives	100 gram/litre
Tile Adhesives	65 gram/litre
Wood Adhesives	30 gram/litre

- Consider physical, biological, and chemical sources of potentially harmful contaminants and select environmentally friendly alternatives.
- Consider material placement, encapsulation, and the incorporation of barriers as means to insure good indoor air quality.
- Incorporate standards for air ventilation strategies.
- Implement pollutant sensors and air quality monitoring equipment that controls fresh air make-up.
- Use natural ventilation strategies where practical.

g. Lighting

Sufficient lighting is essential in every school building for tasks like reading, writing, art and crafts etc. Insufficient lighting may increase stress on eyes and irritation. The lighting can be divided as Natural Lighting and Artificial Lighting according to its source.

Natural Lighting: In a school building, lighting is most important aspect of design. Use of natural light is most preferable as it is free and provides better colour recognition. At least 75% of the floor area of each classroom should achieve at least 2% day light factor.

Day light factor can be calculated using various free software that can simulate the natural lighting. For manual calculation following method should be adopted.

$$\text{Daylight Factor} = \frac{\text{Window Area [SF]}}{\text{Floor Area [SF]}} \times \text{Window Geometry} \times \frac{\text{Actual Visible transmittance}}{\text{Minimum Visible transmittance}} \times \text{Height Factor}$$

- Window Area: Area of glass in the window
- Floor Area: Carpet area of the room
- Actual Visible transmittance: Transmittance of glass used for window

For other factors see the following figure. Other considerations include the following:

- Incorporate day lighting as a significant lighting strategy for all main teaching and learning spaces.
- Orient buildings to maximize southern exposure and minimize east-west walls.
- Reduce cost by integrating day lighting components into overall design.
- Account for benefits of day lighting by reducing cooling equipment and electrical lighting.
- In general, the internal colour should by a light shade which will reflect available light

Energy Benefits of Day Lighting

- Drastically reduces energy costs by up to 64%
- Saves on the up-front expense of cooling and electrical equipment, thereby keeping costs within budget
- Cuts the expenses associated with long-term mechanical and lighting equipment maintenance
- Produces superior lighting conditions; and
- Improves health and increases attendance.

Artificial Lighting / Energy Efficient Lighting and Electrical Systems: Artificial lighting should be mostly used as support to natural lighting at day hours in most of the classrooms. Artificial lighting will be absolutely necessary in case of laboratories, library, stores and function halls. While selecting lighting bulbs, the following factors should be considered:

- The lighting should be designed using software that can simulate indoor lighting conditions using manufacturer's data about luminaries. Such software is freely available on internet.
- Compact Fluorescent Lamps are easily available and provide great efficiency in lighting small spaces. These lamps or T5 tube lights should be used in class rooms.
- To light large areas like play ground or function halls, high pressure sodium vapour lamps should be used. These lamps are the most energy efficient lamps and have long working life.

- Lighting grid should match the working platform grid in laboratories.
- Employ lighting systems that are compatible with the day lighting strategy and use full-spectrum lighting in well-utilized, non-day lit spaces.
- Utilize controls that reduce lighting levels in stages according to the amount of natural daylight in each space.
- Use high-efficiency products that require low maintenance.
- Control key components of lighting, mechanical, and electrical systems with energy management system.

h. Ventilation

Indoor air quality is adversely affected by presence of indoor air pollutants and air changes. In a school building, indoor air pollution can come from following sources: paints, varnishes, solvents that emit volatile organic compounds and carbon dioxide from human breathing. Generally used cleaning agents and cooking also contributes to indoor air pollution. To eliminate the threat of indoor air pollution, good ventilation is essential.

To ensure good ventilation following points should be considered:

- In most of the school building the class rooms are built along a corridor in a row. This arrangement minimizes use of space but eliminates the possibility of cross ventilation. If the school design is single storied then following arrangement can be used to achieve cross ventilation without compromising the use of single corridor by two rows of classrooms. See figure given here.
- At least 3 m. distance should be there between two external surfaces (say, walls) which are facing each other.
- Preferably, the room should have openings on two different walls to ensure cross ventilation.
- After the building construction is complete, including internal colouring and furniture work, the building should not be used for 10 days. During this time, all the doors and windows should be kept open so that all accumulated indoor pollution during construction can be flushed out.
- Laboratories must achieve desired ventilation through exhaust fans.
- If the school building is single storey, wherever possible wall mounted fans should be used instead of ceiling fans. The ceiling of a single storied building absorbs heat of sun radiation and the ceiling fan circulates hot air into the room. A wall mounted fan circulates comparatively cooler air and adds to the comfort of the user.
- Employ energy efficient mechanical system.
- Avoid over sizing equipment.
- Utilize waste heat wherever possible.
- Use energy efficient strategies to insure good indoor air quality.

i. Water

Water conservation in a school building can be achieved by adopting the following measures:

- Providing water efficient landscape.
- Trees that do not require water after first two years should be preferred in the school premises.
- Minimize water consumption for irrigation through the use of native plants and xeriscape principles.
- Design landscapes with drought-resistant, native plants and grasses, and that support integrated pest management (IPM).
- The garden or trees should be irrigated with drip irrigation system
- Avoid unnecessary water waste by incorporating low-flow and water conserving fixtures.
- Use low-flow fixtures. Water efficient taps (discharging less than 12 litres/minute under 5 bar pressure) should be installed.
- The taps should be of self closing type.
- Water efficient duel flushing system should be used in all water closets.
- Harvest rainwater from the building roof and site for irrigation and toilet flushing. Rainwater harvesting can be efficient way of reducing fresh water demand.

Rain water harvesting system should be installed in the school building. The system should include water collecting pipes from the roof top, valves to direct the down coming water, storage tank and ground water recharge pit/ well. The storage tank should be able store at least two days rain water in it. The capacity of the tank can be calculated in the following manner.

Max Rain Fall (as per IMD) occurred in a day in last 10 years for the regions expressed in meters X roof area in squire meters X 0.9 X 2	= Storage Capacity of tank in Cubic Meters

The system should allow for the first rainfall water to be directed to storm water drain and then subsequently should be directed into the storage tank. The overflow of the storage tank should be connected to rainwater harvesting pit or well. The overflow of the recharge pit or well should be connected to storm water drainage.

j. Energy

Reducing the electrical consumption without compromising the users comfort level is the goal of a sustainable building. The energy consumption in a school building would be for lighting and mechanical ventilation. If the day-lighting and ventilation aspects are taken care of, the majority of electrical consumption requirements

would be reduced. To enhance energy savings, the following measures should be implemented.

- Consider the wide range of viable passive energy technologies and integrate them into over-all design for maximum effect.
- Could use Energy modelling and simulation softwares as a decision making tool regards to the Energy Conservation Measures (ECMs) that can be implemented and are also economically viable.
- Use of electrical ballast for all lighting fixtures
- Use of China Mosaic or White Cement Tiles on the roof to reflect the heat radiated by sun.
- Use of energy efficient fans.
- Installation and use of at least 1 kW capacity hybrid system (Solar and Wind) for artificial lighting.
- Dove tailing with other GoI initiatives such as the Solar Mission.

k. Solid Waste

Solid waste generated in the school building is considered as Municipal Solid Waste which is largely non-hazardous. Such waste would comprise of biodegradable material, recyclable material and inert material. Segregation at source would be essential to manage the waste efficiently. The biodegradable part of the waste should be composted within the school premises. Various composting techniques are available and can be used as per the requirement of the particular case. Composting would be most suitable technique for rural schools as it requires large areas but can be treated without any cost.

Vermi-composting, on the other hand requires smaller space and requires some maintenance at regular intervals. Organic Waste Converter requires least space but is costliest to maintain. Thus, technique should be selected according to space availability and cost constraints.

The recyclable waste can be sold to authorised vendors and inert waste should be handed over to the local governing body.

Some part of waste generated by school may be hazardous waste also. Especially waste coming from laboratories and non-functional electrical bulbs would prove dangerous, if not handled properly. Waste coming from laboratories may contain harmful chemicals and the issue with Compact Florescent Lamps are the sharp glass pieces and mercury. The designer should provide a secluded storage space for such waste which is not easily accessible to any student.

l. Barrier free Environment

The States need to create a barrier free physical environment in the school on following lines:

Children with loco-motor impairment: Includes children with non ambulatory and semi ambulatory disabilities.

- Gates, approach road and steps to allow for smooth movement.
- Ramps with handrails to be provided.
- No major level differences within building.
- Toilets to be provided with adjustable seat, grab rail and ramp.

Children with visual impairment: Includes children with low vision and total blindness.

- Plan of the building should be simple.
- Design of windows and illumination levels to eliminate glare
- Reduce distance between the child and the chalk board
- Use of contrasting colours and textures to aid identification of levels, ramps, passageways, steps, doors etc.
- Minimize risk of injuries - avoid projections, sharp edges etc.
- Provision of embossed eye charts on walls

Children with hearing impairment: Children with hearing deficiency or have difficulty in comprehending words and sounds in noisy environments.

- Reduce distance between teacher and child
- Insulate walls – provision of low cost mats and panels, soft board, charts etc.
- Provision of supplementary visual information – ideograms

Children with intellectual impairment: Children with uncommon social behavior or hyperactive

- Provide for open space and greenery
- Create / in built personal space for the child
- Use of bright colours
- Provision of in built play elements

m. Safety

Safety of the pupil and teaching staff is foremost important issue, which can be addressed through some design interventions as mentioned below:

- Providing sufficient high boundary wall – open access not just to the school grounds but to areas around the buildings will be a safety concern as schools in rural areas may be constructed outside developed areas.
- Providing strong and good quality doors, windows, frames and locking devices;
- Making roofs difficult to access
- Providing sufficient firebreaks in wall, ceiling and roof voids;

- Improper or easily accessible storage of waste could be harmful to pupil
- Providing sufficient and proper storage. Lack of this generally results in piling of equipments, furniture or records in corridor which will hamper movement especially in the case of emergency.

n. Other Environmentally Sensitive Building Products and Systems

- Consider the life-cycle energy and environmental impacts of products, materials, and processes - prefer local, recycled, non-polluting materials.
- Use products that are made from recycled materials.
- Prefer local products, materials, and services.
- Use products/materials that do not pollute
- Use alternative fuel and solar electric service vehicles and buses.
- Discourage single car travel by providing convenient connections to mass transit, safe bicycle paths and pedestrian friendly walkways.
- Develop and implement an effective commissioning process that will help ensure proper operation of mechanical and electrical systems.
- Through the design of the building, send a clear message that sustainability matters - design the school as a teaching tool for sustainability.