

Education Watch 2015

# Moving from MDG to SDG

Accelerate Progress for Quality Primary Education



**Campaign for Popular Education (CAMPE)  
Bangladesh**

Education Watch 2015

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## Foreword

This fourteenth report of the *Education Watch* aims to explore the issues and trends through the lens of equity. Quality primary education is the most effective tool for human capital formation. The adoption of Education for All (EFA) in 2000 in Dakar contributed to human capability enhancement. It has also contributed to sustain and strengthen efforts by the International community, national governments and the people throughout the world in promoting and supporting primary education. But evidence from different levels are showing that shown us there are still challenges in ensuring access, completion of the full cycle of primary education and improvement of quality of teaching and learning for all children. This study aims to explore issues associated with quality of primary education in Bangladesh and tries to provide the trend of progress. This has been done by using an Input-Process-Output framework. All relevant data collected by *Education Watch* since 1998, along with the latest data collected in 2013-14, under the *Education Watch* initiatives have been used for the purpose.

Since independence Government of Bangladesh has taken up number of initiatives in improving the primary education sub-sector. International commitments, particularly the Education for All (EFA) goals adopted in Jomtien in 1990 and in Dakar in 2000 and the Millennium Development Goals (MDGs) 2000 have helped in sharpening focus and engaging with global community to further strengthening the initiatives. As a result, many affirmative actions were taken by the government, non-governmental organizations and private sector for expansion of primary education among the masses. Enactment of Compulsory Primary Education Act, nationalization of primary education institutions, provision of fee-free education, expansion of stipend programme (*upabritti*), introduction of competency-based curriculum, free textbooks for all, and non-formal schools in hard to reach areas are the major initiatives that have contributed in ensuring access and availability of primary education to the doorstep of the poor and the marginalized. Currently the Third Primary Education Development Programme (PEDP3) is the main instrument and umbrella program of the government for ensuring compulsory primary education.

The study has tried to explore a number of inter-linked topics including (i) the quality of educational institutions using selected input and process related indicators, (ii) profiles of teachers, head teachers and members of school managing committees, (iii) children's access to education, participation and achievement of competencies, (iv) socio-economic correlates, and (v) efficiency of educational institutions as well as education and literacy status of population as outputs of investment. A major focus of the study has been the identification of trends over a period of last 15 years.

The EFA and MDGs adopted in 2000 have contributed in pragmatic planning and mobilizing resources from home and abroad. Remarkable progress was made across the globe e.g. gender parity in Bangladesh. But the global promise will remain unfulfilled by 2015. International community has adopted Agenda 2030, through a participatory process, with is more specific goals and targets. It has 17 goals and 169 targets. The overarching Goal of Education 2030 as envisaged in Goal-4 of SDGs, is to ***Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.***

The Education 2030 emphasizes on 5 key thematic areas that included (i) Right to Education, (ii) Equity in Education, (iii) Inclusive Education, (iv) Quality Education, and (v) Lifelong Learning. Some other aspirations of the global community included, among others, 12 years of publicly funded free basic education of which



9 years must be compulsory, ranges of education programs to covers PPE to university education including TVET and flexible path, ensuring professionally developed and motivated teachers and promoting national and global citizenship among others.

In response to the global commitment government of Bangladesh needs to take holistic approach and pragmatic plans followed by strategic actions. The finding of this Education Watch Report would contribute to provide a baseline for this journey and the policy recommendations are expected to help in designing strategic actions for the future.

We expect that the concerned authorities of the government would look into the findings seriously and take necessary actions so that the nation's foundation can be built strongly. A strong political commitment for human capability enhancement through ensuring quality primary education is essential. We believe that the government will be able to give the right direction to the nation in this regard.

Finally, I would like to thank all concerned individuals and institutions particularly the research team of *Education Watch* 2015 Study and CAMPE team for their efforts from the start to the finishing of this research work, its production and dissemination.

Let's work together for preparing our children for a brighter future.

Dhaka  
10 December 2015



**Kazi Fazlur Rahman**  
Chairperson  
Education Watch

## Preface

This *Education Watch* Report has attempted to identify trends in primary education in Bangladesh documented by various *Education Watch* studies carried out during 1999-2015. The Report titled ***Moving from MDG to SDG: Accelerate Progress for Quality Primary Education*** has focused on broad-based definition of quality in Primary Education and tried to identify prospects and constraints in terms of input-process-output along with pragmatic policy options based on the findings are suggested for decision makers.

In assessing quality of education, the often-used approach based on an *Input-Process-Output* model which was followed in a number of earlier *Education Watch* studies was also used in this study that allowed the research team to carry out a trend analysis. Key Performance Indicators (KPI) and Primary Schools Quality Levels (PSQL) developed and used by the Directorate of Primary Education (DPE) were consulted in identifying the indicators for this study.

Three sets of items were considered in constructing indicators. The *Input indicators* were focused on school infrastructure, availability of qualified/trained teachers and learning environment related issues alongwith student's background characteristics. The *Process indicators* were focused on Teaching-Learning Process and school governance, while the *Output indicators* focused on students survival, coefficient of efficiency, achievement of competencies by students and its implications for overall literacy status of the population.

As time-series data, collected under different *Education Watch* Studies, has been used for this study findings are dependent on the factors affecting the methodology used in each individual study under the *Education Watch* initiative since 1999.

The overall message of *Education Watch Report 2015* is strongly positive. The major findings of the study have demonstrated that educational institutions are better equipped than before, improvement of the systems was noticed in intermediate output indicators, gender disparity in access and participation has been eliminated to a large extent, educational attainment and literacy status of the population have also improved. However, disparity and inequity in primary education is a lingering problem especially in certain geographical areas and among different socio-economic groups. It definitely remains as unfinished business from EFA 2015 which needs further attention.

The study has tried to recommend some policy implications in the context of SDG-4 or Education 2030 that included, inter-alia, (i) addressing inequity in input and process related factors among various types of schools and the schools within each type; (ii) emphasizing on improvement of classroom teaching to make it more interactive and joyful; (iii) encouraging on-time entry to primary school; (iv) focusing on a comprehensive view of learner competencies including the domain of 'understanding' and enhancement of creativity; (v) emphasizing on quality of education; (vi) substantially enhancing public investment in education in terms of share of GDP and national budget, (vii) intensifying of the work needed to address the unfinished tasks of EFA 2015, and (viii) launching a coordinated national effort with a framework of action for achieving the Education 2030 Agenda.

We would like to express our sincere thanks to Kazi Fazlur Rahman, Chairperson of the Education Watch and Kazi Rafiqul Alam, Chairperson of CAMPE for their continued guidance in carrying out this study. The *Education Watch* is privileged to have the unflinching support of CAMPE. Its staff has all along played a vital role in producing the annual Watch Reports and facilitating their dissemination. Our sincere appreciation goes to them for their tireless efforts.

Samir Ranjan Nath of the Research and Evaluation Division of BRAC and the principal researcher of *Education Watch Study 2015* took the lead in conducting the study and preparing the report. His team members included Prof. Kazi Saleh Ahmed and Dr. AMR Chowdhury. We are grateful to all of them. The panel of reviewers comprising Dr. Anwara Begum of BIDS, Principal Quazi Faruque Ahmed and Prof. Kazi Saleh Ahmed deserve our special thanks for their valuable comments and suggestions on the draft. Dr. Manzoor Ahmed has done a commendable job in editing the report. We are indebted to him.

Our sincere gratitude to the *Education Watch* community, who participated in various sharing sessions on the preliminary findings and the draft report and provided valuable suggestions on the design, approach, analyses and findings of the study. Their contribution in preparing the key messages and policy recommendations of this report is highly appreciated. Our appreciation will remain incomplete if we do not acknowledge the contribution and wholehearted cooperation of the Research and Evaluation Division (RED) of BRAC.

Tanjeeba Chowdhury, Anwar Hossain, Rasel Babu, Utpal Mallick, Durdana Nahid, and Rifat Afroze, of the Research and Evaluation Division of BRAC helped the research team in many ways including training, coordination and supervision of field surveys conducted by the research assistants. K M Enamul Hoque, Ghiasuddin Ahmed, Mirza Quamrun Naher, Abu Reza, and Joya Rani Sarker of CAMPE played important roles at various stages of the study. All of them deserve our sincere appreciation.

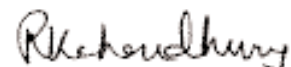
We would like to extend our thanks and appreciation to the respondents of the survey, particularly the household heads, Head Teachers of different schools and parents for sharing their thoughts, experiences and pertinent information to the research team.

We are pleased to acknowledge the support and guidance received from experts and officials of different government agencies, particularly Bangladesh Bureau of Education Information and Statistics (BANBEIS), Bangladesh Bureau of Statistics (BBS), Directorate of Primary Education (DPE), and National Curriculum and Textbook Board (NCTB) among others.

*Education Watch* and its reports have been possible due to the generous support received from the Department for International Development (DFID) - Government of the United Kingdom. We acknowledge their kind cooperation and express our deep appreciation.

Finally, we would like to request the readers, users and well wishers of *Education Watch* to send us their suggestions, if any, regarding selection of topics for research, improvement of quality of research, presentation style or any other issue related to the study. Our efforts will be worthwhile if this report could serve as useful input in the key decision making process for improving primary education in Bangladesh.

Let us all work for ensuring a better future, a beautiful Bangladesh.



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&

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## Acronyms

ANER	Adjusted Net Enrolment Ratio
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
BBS	Bangladesh Bureau of Statistics
BE	Bachelor of Education
BRAC	an NGO, formerly Bangladesh Rural Advancement Committee
C-in-Ed	Certificate in Education
DipEd	Diploma in Education
DPE	Directorate of Primary Education
ECNEC	Executive Committee of the National Economic Council
EFA	Education for All
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIR	Gross Intake ratio
GPA	Grade Point Average
HSC	Higher Secondary Certificate
IPO	Input-Process-Output
KPI	Key Performance Indicators
KR 20	Kuder-Richardson formula number 20
LMIC	Low and Middle Income Countries
MDG	Millennium Development Goals
ME	Master of Education
MoPME	Ministry of Primary and Mass Education
NCTB	national Curriculum and Textbook Board
NER	Net Enrolment Rate
NGO	Non-government Organization
NIR	Net Intake Rate
PECE	Primary Education Completion Examination
PEDP	Primary Education Development Programme



PISA	Programme for International Assessment
PSQL	Primary Schools Quality levels
RED	Research and Evaluation Division [of BRAC]
RNER	Real Net Enrolment Rate
ROSC	Reaching Out of School Children
SDG	Sustainable Development Goals
SMC	School Managing Committee
SSC	Secondary School Certificate
UIS	UNESCO Institute of Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
WCEFA	World Conference on Education for All



# Overview



## A. Introduction

Like many other low and middle income countries in the world, Bangladesh has been serious in developing its primary education sector since 1990. As parts of its commitment to the international initiatives including the Jomtien Declaration (1990), the Dakar Framework of Action (2000), and the UN Millennium Development Goals (MDG 2000). Affirmative policies were formulated and actions were taken by the government, the non-governmental organizations and the private sector for a major expansion of primary education. Nationalization of primary schools, the compulsory primary education act, provision of fee-free education, expansion of the stipend programme (*upabritti*), introduction of the competency-based curriculum, free textbooks for all students, and opening non-formal schools for hard to reach groups and areas were such major actions. All these initiatives were aimed at taking primary education to the doorstep of the poor and marginalized populations and create inclusive provisions for compulsory education. The Primary Education Development Programme (PEDP) carried out by the government with support from development partners has been the main instrument for primary educational development, the third phase of which is underway.

The international calls and the initiatives mentioned above emphasised expansion of primary education, completion of it without dropout and achievement of gender parity. Quality of education and student learning outcome were also part of the agenda, but success achieved in this respect was less than in expanding access, as will be seen in this report.

Expansion of access to primary education was a concern throughout the globe during the past two-and-a-half decades. Net and gross enrolment ratios have increased and the number of out-of-school children decreased. Many countries have shifted their policy towards early entry to primary education and increase of duration of primary education and the length of compulsory education. Such changes occurred in the developed as well as in low and middle income countries. Bangladesh did not see any change in the entry age to primary education or its duration since 1955. Duration of compulsory primary education has also been the same since 1990 when it was set for grades I to V and the age-range 6 to 10 years. Bangladesh belongs to the majority of the countries in terms of primary entry age, but is in the minority in respect of duration of primary education and the duration of compulsory education.

The third phase of PEDP (2011-16) emphasizes *quality of education* along with expansion. Quality of education is not a static concept. Its definition varies with the change in national vision as well as the overall development of the country and its education system. Since its inception in 1998, *Education Watch* undertook a number of studies exploring *quality of primary education*. The latest study on the *quality of primary education* was conducted in 2008— about seven years back. Realizing the importance of this issue at the present stage of primary education development in Bangladesh, the *Education Watch Group* decided to devote its 2015 report to be devoted to *quality of primary education*. It was regarded as opportune timing, because the year 2015 marks the culmination of international EFA goals and MDGs, as well as setting new development goals by United Nations, called the Sustainable Development Goals or SDGs, for the next 15 years. The overarching education goal, Sustainable Development Goal (SDG) 4, one of 17 SDGs, adopted at the United Nations in September 2015 is to *ensure inclusive and equitable quality education and promote life-long learning opportunities for all*. This study can be considered as a summative assessment of the past years' efforts and a baseline for the next 15 years, i.e., Education 2030.

## B. Objectives, data source and sample

Keeping *quality of primary education* in Bangladesh as the centre of attention, this study aims to explore the issues and trends through the lens of equity. The following are the specific objectives.

1. To explore the quality of educational institutions through using selected input and process related indicators, variations in them and changes over time.
2. To investigate the profiles of teachers, head teachers and the members of school managing committees in terms of gender, educational qualifications and training and their roles in providing quality education.
3. To investigate children's access to education, participation in it and achievement of competencies as well as the socio-economic correlates of enrolment and learning achievement and changes in these over time.
4. To assess efficiency of educational institutions, and education and literacy status of population as outputs of investment in primary education and explore the trends in these outputs.
5. To examine equity in the input, process and output factors in the basic education services in relation to gender, locations, school type and socio-economic backgrounds.

In assessing *quality of education*, the often-used approach based on an *Input-Process-Output* model was used in this study. This IPO model was used in earlier *Education Watch* studies. It is, therefore, easier to compare the results of this study with those of the previous ones, thus allowing a trend analysis which is important in assessing progress. Along with the review of existing literature regarding indicators of quality assessment, the two sets of indicators developed and used by the Directorate of Primary Education (DPE) of the government (viz., Key Performance Indicators or KPI and Primary Schools Quality Levels or PSQL) were consulted in identifying the indicators for this study. Following are the three sets of items considered in constructing indicators.

*Input indicators:* Infrastructure of schools, overall school environment, cleanliness, classroom facility, seating capacity, teacher's room, teacher's educational qualification, teacher training, drinking water and toilet facilities, school library, quality of blackboards, student enrolment, and student background characteristics.

*Process indicators:* Student attendance, teacher attendance, student-teacher ratio, hoisting of national flag at the beginning of the school day, singing of national anthem, provision of school dress, cultural activities, sports, and the agenda discussed in SMC meetings.

*Output indicators:* Proportion of students surviving to the fifth grade, coefficient of efficiency, achievement of competencies by students, level of schooling of the population, and literacy status of the population.

Note that four important issues, viz., curriculum, textbooks, teacher training and classroom teaching-learning provisions were not addressed in this study, due mainly to non-availability of comparable data for different years.

This study used various years' data, starting from 1998 to 2014, collected for different *Education Watch* studies. Data sets which contain any of the components/indicators of *quality of primary education* were used in this study. The datasets included:

- Education Watch Household Survey, 1998, 2000, 2005, 2008 and 2013
- Education Watch Education Institution Survey, 1998, 2000, 2008 and 2014
- Education Watch Competency-based Learning Achievement Test, 2000, 2008 and 2014

Sample size varied from one year to another because of number of strata considered and type of questions addressed in household surveys, and types of school considered in educational institution surveys. For instance, provision for division-wise estimates was there in the first four household surveys but a single national estimate in the fifth survey. School survey and learning achievement test considered three types in 2000, six types in 2008 and five types in 2014. Government, newly nationalized and non-formal schools were common in each three. Number of households surveyed was 42,548 in 1998, 30,051 in 2000, 23,971 in 2005, 24,007 in 2008 and 9,000 in 2013. The educational institution survey was carried out on 885 schools in 1998, 952 schools in 2000, 440 schools in 2008 and 663 schools in 2014. Finally, competency-based learning achievement test was administered on 2,509 students from 186 schools in 2000, 7,093 students from 440 schools in 2008 and 5,375 students from 309 schools in 2014.

## C. Major findings

### 1. The primary education institutions

Physical and educational facilities existing in the educational institutions are important *input* indicators for assessing *quality of education*. Some basic facilities – classrooms and teacher’s rooms, cleanliness, drinking water and toilet facilities, school library and blackboard conditions, and co-curricular activities are the items considered under this section.

According to the 2014 survey, most of the government and newly nationalized primary schools and the ebtedayee madrasas were established on their own land where a structure was built. Majority of the kindergartens and most of the non-formal schools were established in rented houses. The buildings of 37% of the kindergartens were built on own land and another 12% on leased land. The government schools were ahead of the other types of schools in attaching ramps to the school building to facilitate access for disabled children. About 85% of the government and newly nationalized primary schools and about 80% of the ebtedayee madrasas had playground; the kindergartens and non-formal schools fell much behind in this respect. Kindergartens were far ahead of the others in having electricity connection in schools (84.7%) followed by the government primary schools (56%). A school garden was not a popular item in any of the school type.

Rural primary educational institutions were ahead of their urban counterparts in having own land and structure, having ramp attached to structures, and playground. Urban schools surpassed the rural schools in having electricity connections and gardens. Although improvement over time was noticed in terms of having playground, attaching ramps with structures and electricity facility, many schools still lacked these facilities. Overall, 60.8% of the schools were established on own land, 63.5% had own structures, 17.8% of the structures had an access ramp, 41.8% of the schools had electricity, 57% had playground, and only 7.4% had a garden.

Surroundings of 59% of the schools were found to be *calm and quiet*, 35% *slightly noisy* and 6% *noisy*. Rural schools were more likely to be located in a *quiet* place. The newly nationalized primary schools, mostly in rural areas, were ahead of the others in this respect, followed by the ebtedayee madrasas, government primary schools, non-formal primary schools and the kindergartens, respectively.

Walls of two thirds of the schools and the floors of 58.8% of those were found acceptably clean (without dirt, dust or wastes). Non-formal schools were ahead of all others in keeping the floors clean. In keeping the walls clean, non-formal schools and kindergartens were in tie followed by government and newly nationalized schools. Urban schools were ahead of rural schools in keeping walls clean but were in a similar situation in keeping the floors clean. It is worth noting that further improvement after earlier progress was not observed during 2008–2014 in cleanliness of school houses.

On average, the study schools had 3.7 classrooms each including the single roomed non-formal schools in 2014. Excluding the non-formal schools, the mean number of classrooms in government schools was 4.9, but for newly nationalised schools it stood at 3.4. One in six schools (15.6%) had an attached access ramp. Only 8.1% of schools followed the government's prescription regarding classroom area of 507 sq. ft. Kindergartens were ahead of others in the number of classrooms, but the government schools surpassed the others regarding other facilities indicators.

Most of the classrooms of the government and newly nationalized primary schools and the kindergartens were constructed fully with brick or a combination of bricks and tin-coated iron sheets. This is the case for less than half of the classrooms in ebtedayee madrasas and over a quarter of those in non-formal schools. On average, less than half of the classrooms had electric lights and fans. Urban schools were better constructed with more facilities than the rural schools. Improvement was noticed from 2008 to 2014 in terms of construction materials of classrooms and their overall condition, and in having electric lights and fans. Improvement was steady over the years in the government primary schools compared to the other types.

Seating capacity in the classrooms also increased over time. In 1998, on average, 32 students could sit with ease in the classrooms which increased to 37 in 2008 and 39.6 in 2014. Sharp increase in student seating capacity in classrooms was observed in the government and newly nationalized primary schools and in the kindergartens. The other two types of schools were closely behind. In 2014, seating capacity was more than the number of registered students in the kindergartens and the non-formal schools, but less in other three types of schools.

Drinking water and toilet facilities also improved over time. In the past, majority of the schools brought water from outside and kept it in jars for use, which has now changed to on-premise water sources. Less than half of the schools (47%) had the drinking water source on the premise in 1998. This increased to almost three quarters (73.7%) in 2014. Overall, 78.2% of the water sources were reported to be arsenic free and thus safe for drinking.

Toilet facility for the students was available in two thirds of the primary schools in 1998 which increased to 70.4% in 2008 and 88.5% in 2014. Cleanliness of toilets also improved over time. In 1998, less than 10% of schools had clean toilets which increased to 62.1% in 2014. The majority of the schools (64.2%) had common toilets for boys and the girls. Proportionately more government schools had separate toilet facility for boys and girls (42%) followed jointly by the newly nationalized primary schools and the kindergartens. The urban schools were ahead of the rural schools in providing toilets and keeping them clean.

Only 2% of the schools had library in 2008 which increased to 12.6% in 2014. However, only 1.3% of the schools had separate room for this; the others kept books on shelves in head teachers' or assistant teachers' rooms. School type-wise, 18% of the government schools, 16.7% of the kindergartens and 13.3% of the newly nationalized schools had a library. Blackboards were in good condition in 86% of the classrooms

meaning that writing was possible on each part of the blackboard. In 2008, 79.6% of the blackboards were in good condition which increased to 86% in 2014. Urban-rural gap was noticed in respect of both libraries and blackboards – urban schools surpassing the rural schools.

National flag was hoisted in 90% of the schools at the beginning of the school day and national anthem was sung in 77% of the schools on the survey day in 2014, marking good progress since 2008. Most government and newly nationalized schools and kindergartens (around 95%) observed these rituals. Non-formal schools (72.7%) and etedayee madrasas (81.3%) were relatively behind in 2014. The urban schools paid greater attention to these practices than the rural schools.

Daily physical exercise, annual sports, cultural competition and cub-scout activities are some of the co-curricular activities of the schools. In 2014, these were organized in different types of schools with substantial variations in these ranging from 30% to 59% of the schools. It can be seen that large proportions of schools did not provide for any of these activities.

## **2. Teachers of primary schools**

Teachers and students together create effective learning environment which is key to quality of education. Teachers' qualification, skills and roles are thus important in assuring quality of education.

The number of teachers substantially varied by school type as well as among the schools within each particular type except the non-formal schools with a single teacher. Excluding non-formal schools, 41.3% of the schools had four or less number of teachers, 11.7% had five teachers, 17.9% had 6–8 teachers and 29% had nine or more teachers. The overall average was 6.2 teachers; 5.5 in rural schools and 9.6 in urban schools.

The mean number of teachers varied by school type – the highest in the kindergartens and the lowest in the newly nationalized primary schools. Number of teachers per school increased over time – from 4.9 teachers in 1998 to 6.2 teachers in 2014. Improvement was better noticed in the government system; however, it declined in the ebtedayee madrasas.

The proportion of female teachers also increased over time. It was 32% in 1998, 39.3% in 2008 and 63.4% in 2014. Note that females share in teaching staff significantly varied by school type in each survey year. It was always higher in urban schools than in the rural schools.

Proportion of primary educational institutions with more female teachers than males also varied substantially by school type and increased over time. In 1998, 40.1% of the schools had more female teachers than males which increased to 69.4% in 2014. Sharp increase was noticed in government schools – from 29% in 1998 to 72.7% in 2014. It was still below 10% in the ebtedayee madrasas. Non-formal schools are pre-dominantly taught by female teachers.

Educational qualifications of the teachers also improved over time in all types of schools. More people with a Masters or a Bachelors degree are now appointed as teachers than before. Overall, 48.3% of the teachers had at least a Bachelors degree in 1998 which increased to 50.1% in 2008 and 57.2% in 2014. The highest proportion of such teachers was found in the government schools (66.9%) followed by the kindergartens (56.5%) and newly nationalized schools (26.1%). This was only 8% in the non-formal schools. The majority of the ebtedayee madrasa teachers (58.2%) received their education from the madrasas.



Humanities was the major discipline in which the primary school teachers had their education. However, comparing the data of 2008 and 2014, it was noticed that the proportion of teachers with Humanities background decreased somewhat and those with Science or Business studies increased.

The proportion of trained teachers in primary education increased over time. Less than 60% of the teachers had basic training (C-in-Ed, BE, ME, DipEd, NGO's basic teacher training) in 1998, which increased to 61.3% in 2008 and 65.9% in 2014. Over 94% of the government school teachers, 87.8% of those of newly nationalized schools and under 60% of the non-formal school teachers were trained. Serious scarcity of trained teachers was observed in the kindergartens and the ebtedayee madrasas, which were 15% and 7%, respectively in these two types. The proportion of teachers with subject-based pedagogy training also increased during 2008-14.

Teacher attendance in schools improved during 2008–14. In 2008, 88.4% of the teachers were present in school on the survey day of which 57.5% attended timely, i.e., before start of official school hour. The rate of attendance was 89.3% and that for timely attendance was 66.1% in 2014. Non-formal schools were ahead of the others in both followed by the kindergartens. Attendance rate was the lowest among the teachers of ebtedayee madrasas and late attendance was higher among those of the government and newly nationalized primary schools. On average, the ones who came late arrived 31 minutes after the schools started.

Student-teacher ratio showed variable progress over time but remains a major problem. It decreased from 46 in 1998 to 39 in 2008 and then increased to 43 in 2014. Reduction was noticed in the government system – from 73 in 1998 to 52 in 2014, though this would be still considered unacceptably high. Less than half of the schools (47.3%) had a student-teacher ratio of 40:1 in 1998 which decreased to 54.5% in 2008 and 58.5% in 2014.

### **3. Management of primary institutions**

Recognizing the potential role of School Managing Committees (SMC) in overall development of schools and improving quality of education, this section presents information on the SMCs. The characteristics of head teachers are also analysed.

Most of the government and newly nationalized primary schools and the ebtedayee madrasas had SMCs in 2014, but 15% of the non-formal schools and 22.5% of the kindergartens had no such committee. Overall, 91.5% of the schools had SMCs. The size of SMCs varied by school type because of regulatory decisions. For instance, an 11-member committee is stipulated for government and newly nationalized schools and ebtedayee madrasas; 7-member in non-formal schools; and no such rule applied for kindergartens.

Females constituted 41.3% of the SMC members in 2014 which substantially varied by school type and school location. The highest proportion of females was observed in the SMCs of non-formal schools (66.2%) and lowest in those of the ebtedayee madrasas (4%). Female membership in SMCs was higher in rural areas than in urban areas (41.8% vs. 37.1%). Share of females in SMCs and the proportion of SMCs with more female members than males increased over time. In 1998, less than a fifth of the SMC members were females which increased to 41.3% in 2014. Again, in 1998, SMCs of 14.3% of the schools had more females than males which increased to 28.7% in 2014. In both cases, the improvement was more than others in the government schools.

Educational qualifications of the SMC members also varied substantially by school type, but qualifications increased over time. On average, they had nine years of schooling in 2008 which increased to 9.8 years in 2014. A very few of them had some sort of training. People with occupations in farming, salaried job and business were less represented in the SMCs in 2014 than those in 2008. On the other hand, representation of teachers, social workers and people involved in household work increased during this period.

Head teachers play a significant role in managing schools. Most of the educational institutions had head teachers in 2014 (96.8%). Of the heads, 30.4% were females; 31% in rural schools and 34.4% in urban schools. It was the highest in the government schools (44.5%) and the lowest in the madrasas (2.8%). The proportion of female heads of institutions increased over time – from 13.8% in 1998 to 21.6% in 2008 and 30.4% in 2014. Major increase was noticed in the government schools.

Educational qualification of the head teachers increased over time. In 1998, 45.4% of the head teachers had at least a Bachelors degree which increased to 69.9% in 2008 and 74.1% in 2014. In 2014, more than 90% of the heads of the government primary schools and 39.9% of those of the newly nationalized primary schools had at least a Bachelors degree. This was the case for 87.4% of the heads of the kindergartens.

Over 84% of the head teachers were trained in 2014; among them 82.2% were male and 88.5% were female. All the heads of government primary schools, 95.8% of those of the newly nationalized schools, 34.8% of those of the kindergartens and 18.3% of those of the ebtedayee madrasas were trained. Proportion of trained head teachers also increased over time – from 70.8% in 1998 to 77% in 2008 and 84.2% in 2014. The training of head teachers was on pedagogy in general or teaching certain subjects – not necessarily on the management and leadership functions of the head teacher.

The SMCs, on average, met 6.9 times in 2014, 96.8% of them had written minutes, and members' attendance in meeting was counted to be 84.5%. Kindergartens and ebtedayee madrasas were less regular in holding the meetings. Attendance rate was highest in non-formal schools (90.8%) and lowest in the ebtedayee madrasas (80%). The mean number of meetings held decreased from 2008 to 2014, but the practice of writing meeting minutes and attendance of members increased.

Frequently discussed issues in SMC meetings were students' absenteeism, improvement of physical facilities, primary education completion examination (PECE) and model tests, quality of education, etc. Not much difference was observed between 2008 and 2014 in terms of issues discussed in the SMC meetings. There appears to be no evidence of change in the scope of authority and decision-making at school level regarding management of school.

#### **4. Access to primary education**

It is an important consideration for Education for All (EFA) as well as for assessing quality of any education system. Various indicators were used to assess students' enrolment and classroom attendance in primary education.

Access to primary education has increased over time, as observed in terms of net enrolment rate (NER), real net enrolment rate (RNER) and adjusted net enrolment ratio (ANER). NER is calculated as the ratio of students of age 6-10 years *enrolled in any grade* in school against the 6-10 year old child population. RNER refers to 6-10 year olds who are *enrolled in primary grades* against the child population in that age group; while ANER is based on 6-10 year olds who are *enrolled in the primary stage or beyond* against the child population in that age group.

There were improvements over time in all of the access indicators. NER increased from 77% in 1998 to 94.5% in 2013, RNER increased from 70.9% in 1998 to 78.3% in 2013, and ANER increased from 71.4% in 1998 to 80.6% in 2013. The girls surpassed the boys in enrolment throughout the period (1998–2013). The rates were higher for the rural children than those of urban areas in 1998 but an opposite scenario was observed in recent years.

A wide variation in the distribution of primary students among various grades was a reality in earlier years. For instance, in 1998, a third of the primary school students were enrolled in grade I which came down to 13.7% in grade V. In 2013, on the other hand, the proportions of students in the first three grades were 21–22% in each and 17–18% in the last two. The more balanced proportions are an indication of less dropout in primary grades across the board, improvement in retention for higher grades, and thus greater efficiency.

In 2013, children's school enrolment was found to be significantly and positively associated with children's age, parental education and household food security status. At the same time, difference in enrolment rate for various degrees of household food security and parental education decreased over time. This appears to be related to absolute improvement across the board in economic situation of households and the level of parental education as well as the efforts of schools to attract children to school and hold on to them.

Although the entry age for primary education is six years by law; earlier, the parental tendency was to enrol their children in the first grade of primary education at age 7 to 9 years. The situation has changed over time. More parents are bringing their children to school at the right age. Only a fifth of the first graders was of age six in 1998 which gradually increased to over a third (34.2%) in 2013. Six to seven years old children comprised of 46% of the first graders in 1998, which increased to 65.4% in 2013. Coefficient of variance in age among the first graders decreased from 25% in 1998 to 20.3% in 2013. Still in 2013, a quarter of the first graders were eight years or older.

The increasing tendency of six years old children being enrolled in pre-primary education appears to be a new phenomenon. In 1998, when pre-primary education was not common, less than 10% of six years old children enrolled in such education; the rate gradually increased and reached 36.5% by 2013. By this time, the government had instructed all primary schools to open pre-primary classes.

As a result of increased enrolment, the number of out-of-school children decreased in absolute number. Of the children aged 6–10 years, 3.8 million were out-of-school in 1998 which is reported to have decreased to 3.4 million in 2000, 2.2 million in 2005, about the same in 2008 and a decrease to about a million in 2013. Number of out-of-school children among aged 11–14 years also reduced over time – 3.3 million during 1998–2000 to 3.2 million in 2005, 2.6 million in 2008 and 1.8 million in 2013. Nearly three million children of age 6–14 years were out-of-school in 2013.

Students' classroom attendance rate increased over time – from 58.9% in 1998 to 67.7% in 2008 and 74.5% in 2014. This Improvement was observed in each type of primary institutions during 1998–2014, viz., government (from 58.1% in 1998 to 72.4% in 2014), newly nationalized (52.1% to 71.2%), non-formal (80.7% to 89.4%) and ebteedayee madrasa (47.4% to 65%).

### **5. Internal efficiency of education institutions**

Internal efficiency of primary education system, an *output* indicator, was explored through creating a *synthetic* cohort of students. The estimates included promotion, dropout and repetition rates, survival up to grade V, completion of primary education, and coefficient of efficiency.

Consolidating the five grades together, the promotion rate was 86.5% in 1998 which increased to 87% in 2000 and then decreased to 77.6% in 2008 and again increased to 92% in 2014. The promotion rate was higher among the girls than the boys but not much variation was observed between rural and urban schools.

During 2013-14, among those who enrolled in grade I, 86.8% survived up to grade V and 79.2% graduated (completed primary education). This latter figure means that 20% children drop out before completing the primary cycle. The completion rate was 72.4% for boys and 85.6% for girls; and 79.7% for rural and 77.1% for urban students. This varied widely for different types of schools – 86.3% for government schools, 86.8% for non-formal schools, 63.3% for newly nationalized schools, 51.7% for kindergartens and 36.8% for ebtedayee madrasas.

The coefficient of efficiency of primary education (the ratio of expected number of years to complete the cycle and actual number of years expressed in percentage) was 74.3% in 2013-14. It was 69% for boys and 79.3% for girls; and 74.8% for rural and 72.1% for urban students. School type-wise, it was 89.1% for non-formal schools, 77.1% for government schools, 66.6% for newly nationalized schools, 61% for kindergartens and 48.1% for ebtedayee madrasas.

The rural government primary schools were more efficient than those in urban areas. An opposite scenario was observed in newly nationalized primary schools and in kindergartens. A higher and equal level of efficiency was noticed in the non-formal schools of both rural and urban areas.

Of the four survey years, the coefficient of efficiency of primary education was found similar in three of the years, viz., the first two and the last one. The coefficient was 75.5% in 1998, 76.3% in 2000 and 74.3% in 2014. A drop in the coefficient of efficiency was observed in 2008, the reason for which is not entirely clear.

## **6. Competencies achieved by fifth graders**

Students of grade V were assessed through a competency-based learning achievement test developed by the *Education Watch Group*. This is an important *output* indicator, also may be described as learning outcome or student outcome, for assessing quality of education. Taxonomic domains and subject-wise analyses were also done.

In 2014, of the 27 competencies selected for testing from the grade V terminal competencies indicated in the primary curriculum, the fifth graders, on average, achieved 20.1 of the competencies in 2014. This number was 23.4 for the students of kindergartens, 20.4 for those of the government schools, 19.9 for those of the non-formal schools, 18.3 for those of the newly nationalized schools and 17.2 in the ebtedayee madrasas. Girls surpassed the boys and urban students did better than rural students.

The mean number of competencies achieved by the students increased over time – from 16.1 competencies in 2000 to 18.7 in 2008 and 20.1 in 2014. The boys outperformed the girls in the first two tests but an opposite result was observed in the latest test. On the other hand, the urban students outperformed their rural counterparts in all three tests. A sharp increase in test results was noticed among the students of government primary schools during the three surveys. The students of newly nationalized and non-formal schools did significantly better from 2000 to 2008, but showed no significant difference between 2008 and 2014.

On average, the students achieved 74.5% of the competencies in the 2014 test. It was 83.3% in Primary Science, 78.7% in Bangladesh & Global Studies, 73.7% in Bangla, 69.2% in Mathematics and 62% in English.

Students' performance increased in all five subjects over time. The highest increase was recorded in Mathematics (21.2 percentage points) followed by English and Bangladesh & Global Studies (over 15 percentage points in each). The least increase was recorded in Bangla (7 percentage points).

Although the students' performance increased in both 'knowledge' and 'understanding' domains, the rate of increase was faster in the 'knowledge' domain than in the 'understanding' domain. Students performed much better in 'knowledge' domain than in 'understanding' domain in all three tests.

Strong positive correlation between students' performance and their socioeconomic background was observed in each of the tests. As expected, students' performance improved with the increase of parental schooling and household food security status.

## **7. Education and literacy attainment of population**

The level of schooling and literacy status of the population are two direct *outputs* of primary education development in the country. These were explored for various age groups of the population.

Four indicators were taken to understand the changes in level of education of the population. These include: (a) ever schooled population aged six years or above, (b) primary education completers aged 11 years or more, (c) junior secondary education completers 14 years or above, and (d) secondary education completers who are 16 years or above. Increase was observed in each of the four indicators; however, it was faster in the first two than the latter two. The rate of increase per year was more than one percentage point in the first two indicators, less in the third and only 0.4 percentage point in the fourth.

Females were significantly ahead of the males in each of the indicators. The urban population outperformed their rural counterparts in all four indicators. Progress was seen more among the females than the males in each of the four indicators and it was higher for rural females than their urban counterparts. For instance, proportion of ever schooled males increased 15.9 percentage points and of ever schooled females it increased 20.8 percentage points. Again, increase in ever schooled population was 19 percentage points in rural areas and 12.9 percentage points in urban areas. Increase in primary completers was 17.7 percentage points in rural areas and 14.1 percentage points in urban areas. It may be noted that the females started from a lower base; nonetheless, a faster progress for women is encouraging.

The literacy rate of the population also increased over time. Overall increase was 15.7 percentage points for the population aged 7 years and above, 15.2 percentage points for those aged 11 years and above and 13.4 percentage points for those 15 years and above. Literacy rate of the males was significantly ahead of that for the females in all four surveys but the gender-gap narrowed over time. For instance, gender-gap in adult literacy was 11.5 percentage points in 1998, which decreased to 11.2 percentage points in 2000, 7.1 percentage points in 2008 and 7 percentage points in 2013. Similarly, literacy rate of urban population was significantly higher than rural population in each survey year. The urban-rural gap also decreased over time but at a slower pace than gender-gap.

The percentage of households with at least one literate person (hence called a literate household) also increased over time. In 2000, 61.1% of the households had at least one literate person which increased to 78% in 2005, 78.5% in 2008 and 82.9% in 2013. The rates of literate households were much higher in urban areas than in rural areas throughout the period, though the urban-rural gap has come down over time. On the other hand, the overall rate of progress in reduction of illiteracy has slowed down considerably in recent years.

The impact of expansion of primary education was the most among the youth (15–24 years) which is seen in their educational attainment. During 1998–2013, the proportion of ever schooled youth increased by 23.9 percentage points (from 68.9% in 1998 to 92.8% in 2013), primary completers by 26.2 percentage points (from 53.3% to 79.5%), junior secondary education completers by 22.9 percentage points (from 30.9% to 53.8%) and secondary school completers by 14.7 percentage points (from 14.6% to 29.3%). Progress in respect of secondary school completion has been considerably lower than in the earlier stages of education.

Analysis of age-specific literacy rate showed the highest literacy rate among youth. The youth literacy rate was 60.4% in 2000 which reached 74.9% in 2005 and 80.2% in 2013. The increase was 20 percentage points throughout the period or 1.55 percentage points per year. Increase in youth literacy was noticed across the board in terms of age group, gender and residence.

Using a Compound Growth Model, it is projected, taking 2013 as the base year that Bangladesh would require another six years to reach 100% NER, but 37 years to reach 100% enrolment of children in the 6–10 years age group (RNER) in appropriate primary grades. In other words, these respective targets would be achieved in 2019 and 2050 at the current rate of progress. It was also projected that the population of age six and above will have at least one year of schooling by 2030 and it will be 2037 by the time all of the 11+ population complete primary education. However, all youth (15–24 years) will complete primary education by 2022 and be literate by 2023. There would be no ‘non-literate household’ by 2021.

#### D. Key messages

The overall message of *Education Watch 2015* is strongly positive. The trend of progress in the last two decades has been maintained. There are major accomplishments, particularly, in what may be called the ‘intermediate’ outputs. The following are the key messages emanating from the findings of the *Education Watch 2015* study.

1. *Educational institutions are better equipped than before; major improvement has been witnessed in the government school facilities.* Physical and educational facilities of primary educational institutions have improved over time, especially in classroom space, sanitation and water facilities as well as educational qualifications and training of teachers. Major improvements were noticed in the government primary schools, which serve about two-thirds of the primary school students. Newly nationalized primary schools lag considerably behind. The majority of the ebtedayee madrasas do not have the minimum required facilities. Despite progress, separate and clean toilet facilities for girls, size of the teaching personnel, high student-teacher ratio, and insufficient learning time especially in double-shift schools are still concern.
2. *Improvement of the systems was noticed in intermediate output indicators.* These include survival of students up to the end of primary education, completion of such education and reduction in dropout and repetition. Learning achievement of the students also showed an improvement over time. However, students’ performance in the ‘understanding’ domain lagged much behind the ‘knowledge’ domain. This signals critical issues about teaching and learning for competencies, assessing competencies, and how competencies are defined and handled in curriculum, teacher training and classroom practices.
3. *Gender disparity in access and participation has been eliminated and share of females in primary education is increasing.* Enrolment of more girls than boys is well documented. This study also shows



an increasing share of females among the teaching staff, heads of institutions, and in the school managing committees. Proportions of schools with more female teachers than males and SMCs with more female members than male members also showed an upward trend.

4. *Disparity and inequity in primary education is a lingering problem especially in certain geographical areas and socio-economic groups.* Despite progress in school enrolment and learning outcome, ecologically disadvantaged areas and socio-economic groups in poverty indicated by 'food security status' in this study reflects inequity in terms of gender, residence (rural/urban) and parental schooling level though the gaps in these respects have narrowed. Variations are visible among school types which call for special effort to overcome.
5. *Educational attainment and literacy status of the population have improved.* As a result of continuous effort to improve primary education and increased enrolment and completion in primary education, a positive change has occurred in educational capability of the population of the country. Educational attainment of the masses, represented by years of schooling completed, their literacy status and households with at least one literate person have increased over time.
6. *There is unfinished business from EFA 2015; these and the broader vision of Education 2030 as part of SDG 2030 require concerted planning and action.* Dropout and non-completion in primary education, out-of-school children, better learning outcome and ensuring necessary resources are the continuing unfinished agenda. In addition, helping all children grow and prepare them to learn through early childhood development and preschool education; extending compulsory education to secondary level; enhancing skills and competencies of learners for further learning, work and life; widening lifelong learning opportunities in a learning society; preparing a new generation equipped for responsible global and local citizenship and for its role in sustainable development; and removing obstacles and disparities for all disadvantaged groups are part of the broader Education 2030 agenda.

## E. Policy recommendations

The findings, the analyses and the main messages of the *Education Watch 2015* study lead to policy imperatives for continuing the effort to move forward with Education 2030 targets in the context of SDG 2030.

1. *Address inequity in input and process related factors among various types of schools and the schools within each type.* This is important for the sake of offering equal opportunity to the children irrespective of the type of school they enrolled and location of the schools. The *upazila* education offices can assess the needs of the schools along with the SMCs and the communities and prepare development plans for need based investment for further improvement of quality of primary education provision. A mechanism for comprehensive *upazila*-based assessment, planning, estimating resource requirements, management and monitoring for achieving universal primary education with acceptable quality has to be established with the involvement of all education providers and the local government bodies. Special attention has to be given to the development of the newly nationalized primary schools.
2. *Emphasize on improvement of classroom teaching to make it more interactive and joyful so that students' classroom attendance increases and learning can be enhanced.* Teachers, parents and the school committee have to work together to bring about the transformation in classroom practices, student engagement and better learning results. The role of SMCs is particularly important in this

regard. At present, the parents, teachers and the SMC members have better educational attainment than before. How the increased capabilities of these people can be utilised more effectively for creating a learning culture at home and in school should be identified and implemented.

3. *Encourage on-time entry to primary school to promote a culture and discipline of participation and progression of children in school.* Birth registration, campaign for entry at right age and regular attendance should be the combined responsibility of school, managing committee, parents, community and local government. This would also reduce age related heterogeneity in the classrooms, help better classroom interaction among the students, and an atmosphere for joyful learning can be created. Children of age six or above coming to enrol in school should be admitted in the first grade of primary education irrespective of their prior experience of pre-primary education. Similarly, children below six years should be admitted to pre-primary education.
4. *Emphasize on a comprehensive view of learner competencies including the domain of 'understanding' and enhancement of creativity.* This is strongly related to the way students are assessed in school and in PECE and the way teachers prepare them for such assessments. How to move away from the current text-book based and high-stake PECE to an emphasis on formative assessment and public assessment of core competencies more to evaluate the system performance, rather than grading individual students, should receive serious attention. The currently prevailing exam-centric pre-occupation of schools, teachers, and parents needs to be transformed to a learning-centric school and classroom activities, which have to be encouraged by policy measures. A culture of studying the content of a subject in textbooks and other materials including the internet resources and an activity and project approach in classroom, rather than memorising questions-and-answers, will encourage 'understanding' and creativity. Reducing the present student-teacher ratio to an acceptable 30 to 1 will call for at least 50 percent more teaching personnel with the current enrolment level.
5. *The emphasis on quality of education cannot preclude attention to right-based access and participation of all children in school.* Still, about three million children are out-of-school! These children are most vulnerable in terms of disabilities, geographical location, and socioeconomic status. A special programme can be developed to reach these children. A single mode, say non-formal education, might not work well to address everyone. A multiple mode of operation with new package of support attractive than *upabritti* might be required. A systematic effort is needed to identify and reach out to the children at risk of non-enrolment and dropout. To address the issue, DPE can work together with the experienced NGOs with a time bound plan.
6. *Public investment in education needs to be increased very substantially, reversing the trend of decline as share of GDP and national budget.* A holistic approach with strong political commitment is required for this purpose, ensuring that both existing and new resources are better utilised. It cannot be just an incremental approach of adding to the existing pattern of expenditure. Within the medium term, it would be reasonable and feasible to double public resources for education as share of GDP and raise it further in a 10-year time-frame up to a level appropriate for medium level middle income country. Major increase in expenditure for teachers will be needed in the labour-intensive education sector, if the required numbers of teachers are planned to be employed, attracting talented people and holding on to them in the profession. Major investments will also be needed in infrastructure to ensure a threshold of investment without which the system cannot function efficiently.



7. *Intensify and accelerate the work needed to address the unfinished tasks of EFA 2015 and launch a coordinated national effort with a framework of action for Education 2030.* Various elements of the new agenda exist in existing primary, secondary and non-formal education and skills development initiatives. These have to be critically looked at from an overall strategic framework for Education 2030, filling gaps and deficiencies, strengthening components as needed, and maintaining an oversight over progress. A participatory mechanism for this oversight by stakeholders including civil society, NGOs and academics needs to be established with the lead given by the concerned national focal point for SDG coordination. Adapting and adjusting global targets and indicators for the national context, linking the education priorities to other SDG goals and targets, and guiding monitoring and reporting of progress on Education 2030 can be the tasks of the oversight body.

To summarise a key point, the trend of positive development in the last two decades has been encouraging. There are major accomplishments, particularly, in what may be called the intermediate outputs. The unfinished tasks of EFA 2015 and the broader agenda of Education SDG 2030 present a challenge and an opportunity. The positive results in recent years are the capital on which much needed further progress in learning outcome and overcoming lingering disparities in educational participation has to be, and can be, built. To reach the SDG target for 2030, Bangladesh needs to accelerate its progress compared to what was done during the MDG era.



# Chapter 1

## Introduction and Background



A quality primary education is the most effective tool for human capital formation. The International community, national governments and the people throughout the world have been actively promoting and supporting primary education, especially since 1990, when the global Education for All (EFA) initiative began. The challenge has been to ensure access, completion of the full cycle of primary education and improve quality of teaching and learning for all children.

Many countries have made good progress during the period. Bangladesh is among the top performers. This year's *Education Watch* report discusses progress made and challenges ahead in primary education. This introductory chapter provides the rationale for the study, presents the global context in this sector, and discusses in details the situation in Bangladesh.

## A. Introduction

Primary and basic education is the foundation on which the nation's edifice is built. It creates the ground for individuals to pursue further learning and fulfil their potential in life. Although such education has been in place for centuries, the majority of the world's children did not have access to it for long. In some high income countries primary education was made compulsory for all children of certain age more than a hundred years ago; but it is a recent phenomenon in many low and middle income countries (LMIC). Primary education captured the attention of the international community since the Jomtien Conference on Education for All in 1990. This was reinforced at the World Education Forum in Dakar in 2000. The world saw the international community and the national governments working together since then sharing common concern and interest.

The World Education Forum 2000 in Dakar specified six EFA goals focusing on basic education as the foundation for human development. Of the six EFA goals, the second one is specific to primary education. The goal reads: *ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to, and complete, free and compulsory primary education of good quality*. In regard to quality, the sixth goal says, *improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills* (UNESCO 2000). In the same year, following Dakar, the Millennium Development Goals (MDGs) were proclaimed at the United Nations. Two of the eight MDGs are on education which emphasized access to and completion of primary education by all girls and boys. According to the latest EFA Global Monitoring Report 2015, both the global initiatives, viz., EFA and MDGs, played a dominant role in expansion of education throughout the world (UNESCO 2015).

It is to be noted that the World Conference on Education for All (WCEFA) of 1990, committed countries to improving quality of education with equity. A decade later, the Dakar Framework of Action declared that access to education of good quality is the right of all children. The declaration considered quality as the heart of education. Mere access to education was considered meaningless without access to quality education. In September, 2015, the UN General Assembly approved 17-point Sustainable Development Goals (SDGs), setting global development agenda for the next 15 years up to 2030. The fourth SDG is on ensuring 'equitable quality education and life-long learning'. The goal pledges to *ensure inclusive and equitable quality of education and promote lifelong learning opportunities for all* (United Nations 2015). Targets related to this goal is provided in Annex 1.1.

Prior to 1990, the most part of the world was facing crisis of both access and quality of education. Thus, the international initiatives at the initial stage (in Jomtien Conference 1990) emphasised 'basic education'

which included access to ‘literacy’ (3Rs) with life skills knowledge. As the access increased emphasised was gradually shifted to cycle completion as well as quality. Gender parity was a non-negotiable value for all these calls and initiatives.

Bangladesh expressed its commitment to the international goals and targets since their inception. Its development agenda is set in line with the need of the people and its international commitments. Various initiatives have been undertaken in Bangladesh by the government, non-government organizations (NGOs) and the private sector for expanding educational opportunities and improving its quality. In the year of the Jomtien Conference (1990), the net primary enrolment rate was only 60% in Bangladesh which saw a remarkable increase to over 97% by 2013 (BBS and UNICEF 1992; DPE 2014). In the case of school enrolment, the girls lagged much behind the boys in 1990; the girls are now in a favourable condition. Physical facilities in schools as well as student learning achievements have also improved. This improvement is portrayed in government reports and is substantiated by various *Education Watch* studies (DPE 2013, 2014; Bangladesh Planning Commission 2015; Nath and Chowdhury 2001, 2009; Nath *et al.* 2013).

Quality of education is not a static phenomenon. Its definition varies with the change in national vision as well as the overall development of the country and the education sector. Since its beginning in 1998, *Education Watch* investigated various aspects of the quality of primary and secondary education. The latest study on the quality of primary education was conducted in 2008 – about seven years back. Recognizing the importance of this issue at the present stage of primary education development, the *Education Watch Group* decided its 2015 report to be devoted to quality of primary education. It is opportune timing since the year 2015 marks the culmination of international EFA goals and MDGs, and the setting of the new development agenda, Sustainable Development Goals or SDGs, for the next 15 years. This study can be considered as a summative assessment of the past years’ efforts and a baseline for the next 15 years, more broadly the fourth SDG.

## B. Expansion and quality of primary education globally

The UNESCO Institute of Statistics (UIS) and the EFA Global Monitoring Reports (EFA-GMR) have been providing information on the progress of countries regarding the six EFA goals globally. Access to primary education, quality of education and gender equality cover three of the six goals. Although it is not the same kind of primary education that is provided to the children all over the world, there are common indicators that can help examine progress and compare countries and the regions. The cultural context and the economic strengths of the countries lead to somewhat differing curriculum objectives and assessment systems as well as overall provision of primary education.

Countries vary in terms of official entry age and duration of primary education, and duration of compulsory education. They also differ in their achievement on these indicators. The entry age for primary education varies from 5–7 years but for a majority of the countries it is six years (Table 1.1). In 2012, the primary entry age was five years in 14.6% of the countries, six years in two-thirds of the

**Table 1.1**  
*Percentage distribution of countries by primary entry age and year*

Entry age	Developed countries		Developing countries		World	
	2000	2012	2000	2012	2000	2012
5 years	8.9	10.5	13.6	16.1	12.3	14.6
6 years	51.8	56.1	68.7	69.8	64.0	66.0
7 years	39.3	33.3	17.7	14.1	23.7	19.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: EFA global monitoring reports (UNESCO 2003, 2015)

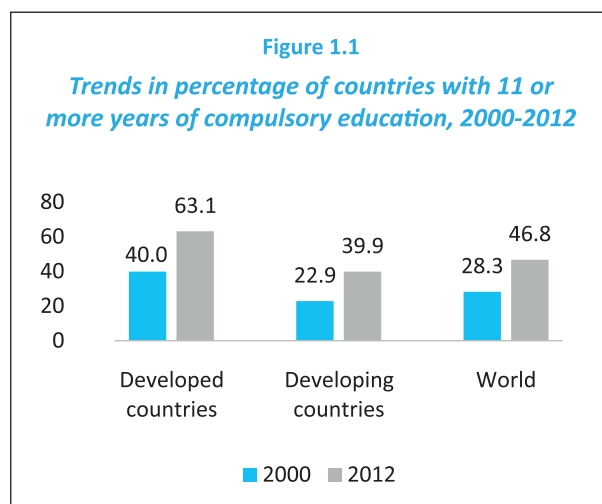
countries and seven years in 19.4% of the countries. These figures were 12.3%, 64% and 23.7%, respectively in 2000. Thus, a moderate trend of shift towards earlier entry to primary education over the past 15 years is seen. Duration of primary education also increased over this period in some countries, but for over 60% it remained six years. The slight shift to early entry and increase in duration of primary education occurred both in high income as well as developing countries (Tables 1.1 and 1.2).

**Table 1.2**  
*Percentage distribution of countries by duration of primary education and year*

Duration	Developed countries		Developing countries		World	
	2000	2012	2000	2012	2000	2012
3-4 years	46.4	35.1	4.1	2.7	15.8	11.7
5 years	10.7	15.8	12.2	14.1	11.8	14.6
6 years	37.5	40.4	68.7	67.8	60.1	60.1
7-8 years	5.4	8.8	15.0	15.4	12.3	13.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Sources: EFA global monitoring reports (UNESCO 2003, 2015)

Primary education is not compulsory in every country and the duration of this also varies. Compulsory and primary education are not necessarily of the same duration. Many countries increased the duration of compulsory education in the recent years (2000–12). In 2000, duration of compulsory education was 5–8 years in 21.4% of the countries, six years in over a quarter of the countries and 10 years in another quarter of the countries (Annex 1.2). By 2012, all these figures reduced to 15.3%, 13.7% and 24.2%, respectively. On the other hand, in 2000, the duration was 11 years in 16.2% of the countries, 12 years in 9.8% of the countries and 13 years or more in 2.3% of the countries. All these figures increased over time and reached 18.9%, 14.7% and 13.2%, respectively. In summary, duration of compulsory primary education was 10 years or less in 71.7% of the countries in 2000 which decreased to 53.2% by 2012. In other words, only 28.3% of the countries had 11 or more years of compulsory education in 2000 which increased to 46.8% in 2012 (Figure 1.1). Duration of compulsory education was 11 years or more in 40% of the developed countries in 2000 which increased to 63.1% in 2012. Increase was noticed in the developing countries too – from 22.9% in 2000 to 39.9% in 2012. The developing countries reached at the level of developed countries after 12 years.



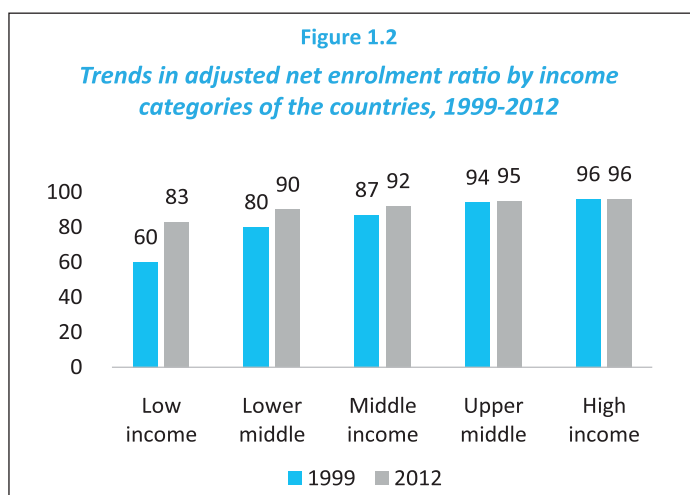
Sources: EFA global monitoring reports (UNESCO 2003, 2015)

What is the situation in Bangladesh? Primary entry age in Bangladesh is six years and duration of primary education is five years. None of these changed during the past six decades. Again, the duration of compulsory education is five years which also remained unchanged for the past two-and-a-half decades. Bangladesh is among the majority of the countries in terms of primary entry age but not in other two indicators, in which the majority of the countries are ahead of Bangladesh.

Analysing overall situation of the countries in six EFA goals, the latest EFA Global Monitoring Report commented that ‘improvements in access to education are one of the leading successes of the EFA movement’; however, Universal Primary Education will not be reached by 2015 (UNESCO 2015). The global primary adjusted net enrolment ratio (ANER) increased from 84% in 1999 to 91% in 2012 and UIS

apprehended that the ratio would not go beyond 93% by 2015. Of the above improvement during 1999–2012, the highest increase was recorded in Sub-Saharan Africa (14 percentage points) followed by South and West Asia (10 percentage points each) and the Arab States (9 percentage points). The LMICs collectively progressed eight percentage points during this period, whereas it decreased by two percentage points in high income countries (Annex 1.3).

Improvement in adjusted net enrolment ratio (ANER) varied in terms of economic categories of the countries (Figure 1.2). The highest improvement was found in the low income countries (13 percentage points), which started from a low baseline, followed by lower middle income countries (10 percentage points), middle income countries (5 percentage points), upper middle income countries (1 percentage point) and no change in high income countries. Gender gap also came down hugely for each of the country categories (Annex 1.4).



Sources: EFA global monitoring reports (UNESCO 2003, 2015)

Table 1.3 provides global trends in total primary enrolment in various regions. At the global level, 595.5 million children were enrolled in primary education in 1990 which increased to 651.8 million in 1999 and 705.1 million in 2012. The rate of increase in 2012 was 18.4% since 1990 and 8.2% since 1999. Since 1990, the year of Jomtien Declaration, the highest increase in primary enrolment was recorded in Sub-Saharan Africa (132.4%) followed by South and West Asia (42.8%), and the Arab States (40.2%). A negative growth was observed in some regions as well. These include Central and

Eastern Europe, Latin America and the Caribbean and East Asia and the Pacific, in part because of the reduction in the primary education age population. In terms of economic category of the countries, total enrolment increased 75.4% in the low income countries, 21% in the lower middle income countries and less than one percent in the middle income countries (Annex 1.5). Negative growth was observed in the upper middle and high income countries.

**Table 1.3**

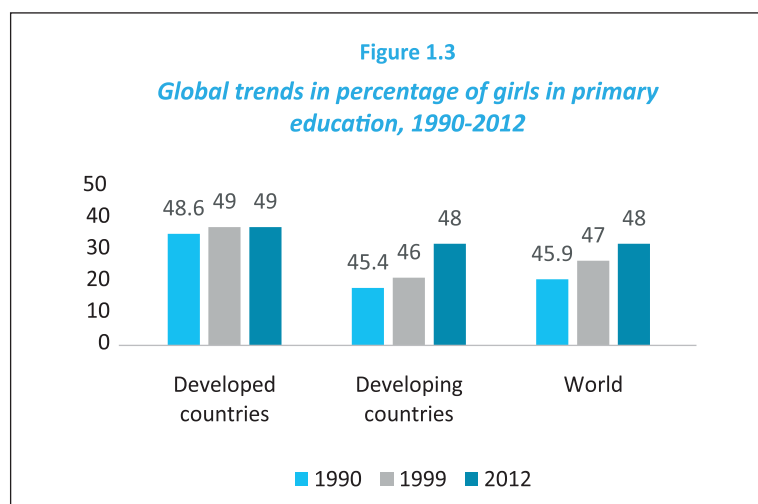
*Global trends in total primary enrolment by region, 1990–2012*

Regions	Total primary enrolment (000)			Percentage change since...	
	1990	1999	2012	1990	1999
World	595 500	651 833	705 103	18.4	8.2
Developed countries	61 300	69 223	64 542	5.3	-6.8
Developing countries	505 000	564 945	626 781	24.1	10.9
Arab States	30 500	34 978	42 761	40.2	22.3
Central & Eastern Europe	31 200	24 860	19 712	-36.8	-20.7
Central Asia	5 100	6 823	5 479	7.4	-19.7
East Asia and the Pacific	206 700	225 312	184 382	-10.8	-18.2
Latin America & Caribbean	75 000	69 972	64 696	-13.7	-7.5
North America & W Europe	50 100	52 822	51, 349	2.5	-2.8
South and West Asia	134 900	154 880	192 650	42.8	24.4
Sub-Saharan Africa	62 000	82 185	144 075	132.4	75.3

Sources: EFA global monitoring reports (UNESCO 2003, 2015)

In 2012, girls' share in the primary enrolment was 47–49% in each of the regions and the countries in various economic strata (Annexes 1.5 and 1.6). Overall, it was 48% at the global level. Girls' share in primary enrolment increased from 45.9% in 1990 to 48% in 2012. Since 1990, the highest increase was recorded in the South and West Asia (6.5 percentage points) followed by Arab States (3.6 percentage points). Figure 1.3 provides trends in percentage share of girls in primary enrolment for developed and developing countries, separately.

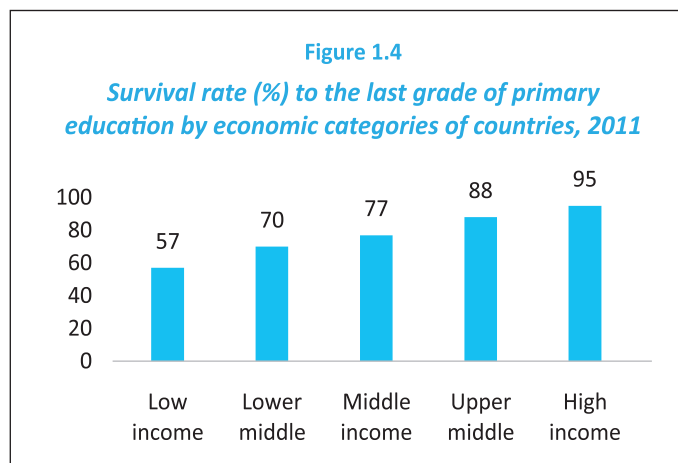
As a result of increased enrolment of both boys and girls, number of out-of-school children has gone down over time. The number of out-of-school children was 104.2 million in 1990, which increased to 105.8 million in 1999 and then decreased to 57.8 million in 2012 (Annex 1.7). The rate of reduction was 44.5% since 1990. Although the number of out-of-school children was reduced in the developing countries (45.2%) it increased in the developed countries (28%). The highest reduction of out-of-school children was in South and West Asia (69.7%). Reduction of over 50% was recorded in three other regions: Central and Eastern Europe, Central Asia, and East Asia and the Pacific. Similar analysis by economic category of countries is provided in Annex 1.8.



Sources: EFA global monitoring reports (UNESCO 2003, 2015)

Students' learning outcome has been generally seen as the key indicator of quality; however, the concept of quality of education has changed over time with greater recognition of its complexity and its various dimensions (UNESCO 2015). Development of schools and their effective functioning have been receiving greater emphasis. The related indicators include the elements of internal efficiency of the system including students' progress through the school years leading to learning outcome. Average survival rate to the last grade of primary education remained unchanged at 75% during 1999–2011. However, the rate substantially varied in terms of the countries' economic status (Figure 1.4). On average, it was 72% in the LMICs and 94% in the high income countries. Girls were 1-2 percentage points behind the boys.

Changes also occurred in administering national level learning achievement tests. Before 2000, the year of Dakar Forum, 34% of the countries carried out at least one national learning assessment test, which grew to 69% between 2000 and 2013 (UNESCO 2015). Rapid progress was observed in the Arab States, Central Asia, Central and Eastern Europe, and East Asia



Source: EFA global monitoring report (UNESCO 2015)



and the Pacific. Number of learning assessments increased from 12 in 1990 to 101 in 2013. For countries which participated in internationally conducted standardized tests like Programme for International Assessment (PISA) during 2009–2013, some countries improved their performance while others remained the same or showed deterioration. Student-teacher ratio declined in 83% of 146 countries and 75% of the primary school teachers were trained up to national standard. It was estimated that 1.4 million additional teachers were required to achieve UPE by 2015 (UNESCO 2015).

### C. Primary education development in Bangladesh

Bangladesh, at Independence in 1971, inherited a legacy of disparity and neglect of development including its education system (Sobhan 2015). Disparity in education between the two parts of Pakistan is well documented. The number of primary schools during the pre-Bangladesh period declined by 2.5 percentage points in the then East Pakistan against 4.6 times increase in West Pakistan (Asadullah 2010).

After Independence, the Constitution of Bangladesh adopted in 1972, pledged that ‘the State shall adopt effective measures for the purpose of establishing a uniform, mass-oriented and universal system of education and extending free and compulsory education to all children to such stage as may be determined by law’ (Article 17a). The Constitution recognized that education up to a certain level is the responsibility of the State and it ensured equal opportunity in enrolment in all educational institutions (GoB 1998).

In 1973, recognising the state responsibility for primary education, existing laws related to primary education were repealed. The government took over the responsibility of all primary schools in 1974 through nationalisation of primary education (GoB 1973 and 1974).

In order to prepare a national education policy ten Education Commissions/Committees/Task Forces were formed in Bangladesh over the years. The first National Education Commission headed by Dr. Kudrat-e-Khuda raised the expectation of the nation to a high level through its report in line with the national Constitution. The Commission recommended extending the duration of primary education from five years to eight years within five years of acceptance of the report. The following eight Commission/Committee reports also made many recommendations for the development of primary education. Although, no ‘education policy’ was formulated using these reports, the recommendations were useful in educational planning by the government.

The government’s educational plans are made by the Planning Commission in consultation with the two ministries for education. These are available in successive five-year plan documents. Specific targets to create infrastructure of the primary schools, increase the number of students and teachers, affirmative actions to increase girls’ enrolment and women’s share in teaching staff, creating facility for teacher training, etc. were made in each of the five-year plans. Financial support to implement these plans were made through annual budgetary allocations and approval of development projects by the Executive Committee of the National Economic Council (ECNEC).

From 1990 onwards, many initiatives were taken in Bangladesh, reflecting political objectives of the government, international call for Education for All (EFA), and support of the bilateral and multilateral development partners. These are:

- A separate division for primary and mass education was established which was later upgraded to a Ministry. The Prime Minister was in-charge of the Ministry for most of the time.

- Various awareness programmes to motivate parents to send their children to schools, including school-centric area-based household survey to identify out-of-school children and courtyard meetings with parents, especially mothers.
- Introduction of ‘food for education’ programme which was later modified to a stipend programme called *upabritti* for the poorer 40% of the students. It was primarily started in rural areas and subsequently spread to the whole country.
- The Non-governmental Organizations (NGOs) have taken up large programmes to cater to the disadvantaged groups of children through non-formal primary schools.
- Competency-based curriculum was introduced and the textbooks were modified in line with the specified competencies. The competencies were also modified over time.
- Primary education was made compulsory and fee-free for the majority of the schools and textbooks were distributed free of cost to all students.
- A national level Primary Education Completion Examination (PECE) was introduced.
- With support from the development partners the Primary Education Development Programme (PEDP) was undertaken. The third phase (PEDP 3) is underway now.
- Over 25,000 private non-government primary schools were newly nationalized.

Instead of creating another Education Commission the new government in 2009 made a National Education Policy Formulation Committee. The draft policy was shared with the stakeholders at various levels before its finalization. Through discussion at the *Jatiya Sangsad* the National Education Policy 2010 came into reality, first of its kind in the country. Note that another education policy was prepared in 2000 which was not taken to the *Jatiya Sangsad* or implemented.

The National Education Policy 2010 aims to ensure enrolment of all children in recognized primary educational institutions and to provide them quality education. It also aims to address existing discriminations among schools in regard to facilities and overall educational environment. To achieve these aims it formulated a 34-point strategy under 18 subheadings. Further nationalization of schools, elimination of discrimination among and within various types of schools, common curricula and assessment system, qualified and trained teachers, joyful school environment, no dropout and full enrolment and completion of primary education are the major items addressed in the strategy. A summary of the strategy is provided in Box 1.1. Emphasis on creating an environment to increase quality of education is clear in this policy document.

The record of expansion of primary education since 1971 has been impressive. Before Independence, there were 29,082 primary educational institutions with 117,275 teachers and 5,250,819 students (Table 1.4). Over the 44 years of Bangladesh, the number of educational institutions increased to 108,537 with 482,884 teachers and 19,552,979 students<sup>1</sup>. During this period, number of institutions grew 3.73 times, teachers 4.12 times and students 3.72 times. Major increase in these three areas was continued in the 1990s and in

<sup>1</sup> Such a big jump in the number of educational institutions was because of inclusion of about 15,000 non-formal schools which was not the case earlier. These schools contain similar number of teachers and 438,841 students.

**Box 1.1*****A summary of strategies for primary education under the National Education Policy 2010***

- The State will continue and increase its responsibility to ensure basic education for all. Nationalization of primary education will continue. NGOs and others can provide primary education with permission from concerned State authority.
- In view to develop a non-discriminatory education system a uniform curricula and syllabus will be followed in core subjects. The subjects included Bangla, English, Mathematics, and Bangladesh & Global Studies.
- Age of admission into primary education is six years which will continue up to 10 years for now but 14 years in future. Thus, the duration of primary education will be extended from five years to eight years. Student-teacher ratio will be 30:1.
- A safe, caring and conducive environment will be ensured in schools and joyful, attractive and learner-friendly classroom atmosphere will be created through responsive behaviour of teachers.
- Subject-based textbooks following specific objectives of primary education and supplementary text materials and other teaching materials would be ensured.
- As a way of addressing dropout, stipend for poor students will be extended, and joyful environment will be created through introducing various co-curricular activities.
- Measures will be taken to ensure access to education among children from small ethnic groups, physically challenged, street children, and ultra-poor children.
- Acute discrimination of primary schools of different types and locations will be minimized by phases. Special initiatives will be taken for rural backward areas.
- Interactive teaching methods will be pursued. Continuous and terminal assessments of students will be emphasized.
- Community participation in school management and improvement of schools will be ensured. Quality of education at school level will be monitored continuously. Supervision and monitoring of education within schools will be strengthened.
- Persons with appropriate educational qualifications will be recruited as teachers through a teacher selection body. Teachers will have to be trained within a certain period of recruitment. There will be opportunities of promotion for the teachers.

*Source: National Education Policy 2010, Ministry of Education, Government of Bangladesh (2011)*

the following years. The proportion of females among primary teachers was only 2.2% before Independence which increased to 30.9% in 1990, and to 57.8% in 2014. The girls were below a third of the total primary students in 1970 which gradually increased to 44.7% in 1990 and to 50.7% in 2014. More girls than boys enrolled in primary education institutions in 2010 and onwards.

Change in student-teacher ratio is also noticeable (Table 1.4). There were 45 students per teacher in 1970 which gradually increased to 64 students per teacher due to slow down in teacher recruitment. The ratio then gradually decreased with the recruitment of more teachers. The ratio came down to 45:1 in 2010 and 41.1 in 2014. From 1990 to 2014, the number of primary educational institutions grew 2.3 times, teachers 2.6 times and students more than 1.6 times.

**Table 1.4**  
**Expansion of primary education in Bangladesh, 1970–2014**

Year	Number of			% females		Student-teacher ratio
	Institutions	Teachers	Students	Teachers	Students	
1970	29,082	117,275	5,250,819	2.2	31.8	45:1
1980	43,936	174,161	8,219,313	6.2	36.6	47:1
1990	47,241	189,508	12,051,172	30.9	44.7	64:1
2000	76,809	309,341	17,667,985	33.8	48.7	57:1
2010	82,674	380,957	16,904,546	45.6	50.5	45:1
2014	108,537	482,884	19,552,979	57.8	50.7	41:1

Sources: Various publications of BANBEIS and its website ([www.banbeis.govt.bd](http://www.banbeis.govt.bd)), DPE (2014)

Bangladesh has pragmatically accepted a policy of multiple providers in primary education which can be seen from recent official data presented in Table 1.5. It shows the existence of at least 15 categories of primary educational institutions in the country. They vary in terms of different indicators such as number of institutions, teachers and students, percentage of female teachers and students, and student-teacher ratio. Government primary schools, newly nationalized primary schools and the kindergartens are the three major providers of primary education. These types cater 52.1%, 22.9% and 10.2% of the total enrolment of primary students, totalling 85.2%.

Annex 1.9 provides the trends in number of various types of educational institutions from 2001–2014. It shows increasing trend in the kindergartens and NGO operated five-graded primary schools and decreasing

**Table 1.5**  
**Number of primary schools, teachers and students by school type in Bangladesh, 2014**

School type	Number of school	Teachers		Students		Student per teacher
		Number	% females	Number	% girls	
Government primary school	38,033	222,652	64.9	10,188,129	51.6	45.8
Newly nationalized primary school	25,008	96,460	49.1	4,483,785	50.8	46.5
Registered non-govt. school	193	771	60.2	38,282	51.2	49.7
Non-registered non-govt. school	1,744	6,649	70.9	256,268	49.6	38.5
Experimental school	55	282	89.2	10,652	49.3	37.8
Ebtedayee madrasa	2,673	11,673	19.7	372,277	48.7	31.9
Kindergarten	16,170	93,799	58.4	1,988,365	46.0	21.2
NGO school	2,512	5,454	69.0	210,170	51.3	38.5
Community school	120	405	79.5	16,747	51.8	41.4
High madrasa attached ebtedayee	5,526	19,764	14.2	871,047	49.1	44.1
High school attached primary	1,511	8,301	53.6	572,751	51.6	69.0
BRAC primary school	7,779	7,798	93.3	234,438	57.3	30.1
ROSC school	3,818	3,591	79.8	106,884	50.3	29.8
ShishuKalyan school	133	410	67.6	15,665	52.9	38.2
Other schools	3,262	4,875	60.9	97,519	50.0	20.0
Total	108,537	482,884	57.8	19,552,979	50.7	40.5

Source: Bangladesh education statistics 2014 (BANBEIS 2015); Annual primary school census 2014 (DPE, undated)

trend in standalone ebtedayee madrasas. Nationalization of huge number of registered and non-registered non-government primary schools is also noticed. Non-formal schools were not counted in the official table earlier which is now counted.

#### **D. Outline of the report**

This report contains 10 chapters. It also includes an overview, annexes and a bibliography. Seven of the 10 chapters contain the findings of the study. Taking note of the historical perspective, this first chapter started with the rationale of this study followed by development of primary education globally and in Bangladesh. Chapter 2 provides study objectives, detail of methodology, data sources, reliability and validity of the estimates, and strengths and limitations.

Chapters 3–9 presents the major findings of this study; the first four deal with the input and process issues and the remaining three on outputs. Chapter 3 is on the primary education institutions which includes various kinds of physical and educational facilities of the institutions and their quality. Considering teachers as a central element for quality of education, Chapter 4 presents an analysis of their distribution, educational qualification, training, attendance and service length. Chapter 5 deals with management of primary institutions which includes an understanding of the composition of school managing committees (SMC), the role of the head teachers and the issues discussed in SMC meetings. Access to primary education along with its various dimensions and socio-economic differentials are provided in Chapter 6.

Chapter 7 discusses internal efficiency of primary education considering promotion, dropout and repetition in various grades as well as survival of students up to the end of primary education. Students' learning achievement based on a competency-based test is provided in Chapter 8. Chapter 9 gives overall situation of education and literacy of the population of Bangladesh which should improve with the development of primary education.

Chapter 10, the final chapter, discusses the findings presented in the previous chapters, referring to other relevant studies and documents on educational plan and policy. Key messages from this study and policy recommendations for enhancing quality of primary education during the SDG era are also presented. The annexes provide additional tables related to findings, instruments used and some notes on methodology.





This chapter provides a brief description of the methodology used in this *Education Watch* report. Starting with the objectives of the study this chapter presents analytical method, indicators, data sources, instruments, the sample, weighting, data collection procedures, validity and reliability of statistical estimates and strengths and limitations.

## A. Study objectives

Keeping *quality of primary education* in Bangladesh as the centre of attention, this study aims to explore the issues and trends through the lens of equity. Following are the specific objectives.

1. To explore the quality of educational institutions through using selected input and process related indicators, variations in them and changes over time.
2. To investigate the profiles of teachers, head teachers and the members of school managing committees in terms of gender, educational qualifications and training and their roles in providing quality education.
3. To investigate children's access to education, participation in it and achievement of competencies as well as the socio-economic correlates of enrolment and learning achievement and changes in these over time.
4. To assess efficiency of educational institutions, and education and literacy status of population as outputs of investment in primary education and explore the trends in these outputs.
5. To examine equity in the input, process and output factors in the basic education services in relation to gender, residence, school type and socio-economic backgrounds.

## B. Analytical method

Assessment of quality of education can be done in many different ways using both qualitative and quantitative methods; however, a combination of both is considered a stronger and preferred approach. The nation's vision and objectives for primary education, as well as various inputs in the system, the ways the inputs work at school level, direct outputs and longer term outcomes are various components of quality of primary education. There are many approaches to assess quality of education. A popular approach based on an *Input-Process-Output* model will be used in this study. This IPO model was applied in earlier studies under the *Education Watch*. This will make it easier to compare results and facilitate trend analysis which is important in assessing progress. Note that along with the two sets of indicators developed and used by the Directorate of Primary Education (DPE) of the government (viz., Key Performance Indicators or KPI and Primary Schools Quality Levels or PSQL), some additional quality frameworks such as UNESCO (2005), Gobinda and Varghese (1993), Mayer *et al.* (2000), Chowdhury *et al.* (1997), Nath and Chowdhury (2001, 2009), and Nath (2006) were consulted in selecting the indicators, all under the IPO framework.

*Input indicators:* Infrastructure of schools, overall school environment, cleanliness, classroom facility, seating capacity, teachers' room, teachers' educational qualifications, teachers' training, drinking water and toilet facility, school library, quality of blackboards, students' enrolment, students background characteristics.

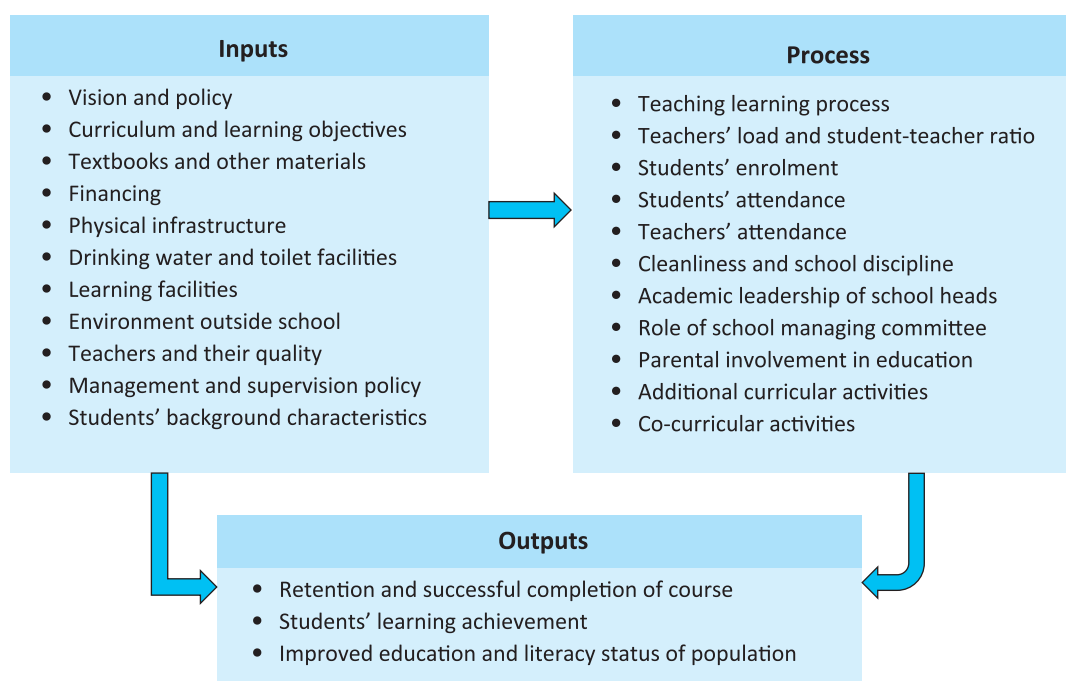
*Process indicators:* students attendance, teachers attendance, student-teacher ratio, hoisting of national flag, singing of national anthem, provision of school dress, cultural activities, sports, type of issues discussed in SMC meeting.



*Output indicators:* Proportion of students surviving to the fifth grade, coefficient of efficiency, students' achievement of competencies, level of education of population, and literacy status of population.

Figure 2.1 presents the IPO model used in this study. List of indicators used in assessing quality of primary education is provided in Annex 2.1 and glossary in Annex 2.2. It should be noted that four important issues, viz., curriculum, textbooks, classrooms teaching-learning provisions, and teacher training process were not addressed in this study, due mainly to non-availability of comparable data. Household level financing was address in the latest *Education Watch* report (Nath *et al.* 2015)

**Figure 2.1**  
*Analytical framework for quality assessment*



### C. Data sources and instruments

This study used various years' data, from 1998 to 2014, collected for different *Education Watch* studies. Data sets which contain any of the components/indicators of quality of primary education were used. These included:

- Education Watch Household Survey, 1998, 2000, 2005, 2008 and 2013
- Education Watch Educational Institution Survey, 1998, 2000, 2008 and 2014
- Education Watch Competency-based Learning Achievement Test, 2000, 2008 and 2014

*Household survey:* This was primarily used to measure enrolment rates. Analysis of socioeconomic background characteristics of the primary level students, and education and literacy status of population were also made use of these data. The household survey questionnaires contained age, gender, years of schooling completed and literacy status of all members of the households following the census definition. School enrolment status of persons aged 4–20 years and those enrolled in primary grades were identified

among the household members. Parental education of each of them was also collected. Household-based information included: household food security status, religion and ethnicity of household head, electricity availability at home, and distance between home and nearest primary school. Except the last variable, all others were available for all the years. The last one was collected only in 2008 and 2014.

*Educational Institutions survey:* This source was used to measure various quality indicators related to educational institutions. The educational institution survey questionnaire for 2008 and 2014 were similar. The questionnaires included some basic information about the schools, school infrastructure, drinking water and toilet facilities, classrooms and their quality, cleanliness, seating capacity, co-curricular activities, promotion, dropout and repetition, teachers profile and their education and training, profile of school managing committee members, number of meetings held and issues discussed in the meetings. The Educational Institution Survey questionnaires for 1998 and 2000 were much shorter and thus, did not cover all the above information. However, all four surveys contain some common variables.

*Competency-based Learning Achievement Test:* This is the first of its kind in Bangladesh and the test instrument was developed by the *Education Watch Group* in 2000. This test is suitable for the students completing primary education. At that time the National Curriculum and Textbook Board (NCTB) specified 53 attainable terminal competencies which the students were supposed to achieve by the end of primary education. Out of 53 competencies, the *Watch Group* identified 27 which were amenable to paper-pencil-based test. Thus, the test was based on these competencies. The test covered three competencies on Bangla and English each, five on Mathematics, six on Bangladesh & Global Studies [then called *Paribesh Parichiti (Samaj)*], nine on Primary Science [then called *Paribesh Parichiti (Bigyan)*], and one on Religion & Moral Education (then called Religious Studies). Total number of items was 64 (Table 2.1). The same test was administered in 2000, 2008 and 2014. The National Curriculum and Textbook Board (NCTB) made some changes in the list of competencies twice. In the first instance, the number of competencies was reduced to 50 and later to 29. NCTB reduced the number at the terminal level by consolidating some competencies and dropping others, but the grade-wise learning continuum most remained similar. In a broad sense, therefore, contents of the competencies, though reformulated, did not change significantly. Detailed description of test development and its validity and reliability is available in Nath and Chowdhury (2001).

Table 2.1

#### Number of competencies and question item by subjects

Subjects	Number of competencies	Number of items
Bangla	3	10
English	3	7
Mathematics	5	15
Bangladesh & Global Studies	6	13
Primary Science	9	18
Religion & Moral Education	1	1
Total	27	64

Source: Nath and Chowdhury (2001)

## D. Study sample, weighting and respondents

*Sample:* Detailed description on the sampling strategy is available in the *Education Watch* reports of the respective years. This section presents it briefly. The sample size varied from one year to another because of number of strata considered and the questions addressed. For instance, provision of division-wise estimates was there in the first four household surveys, but in the fifth survey, only a single national estimate was intended. Thus, the sample size for 2013 household survey was much smaller than the others. Similarly types of educational institutions considered also varied from one year to another. School type varied from one year to another in competency-based test too. For instance, government, newly nationalized (previously known as registered non-government primary school) and non-formal schools

**Table 2.2**  
*Sample at a glance of various surveys used in this study*

Data sources	Year					
	1998	2000	2005	2008	2013	2014
<i>Household survey</i>						
Number of households	42,548	30,051	23,971	24,007	9,000	-
Children 6-10 yrs.	31,092	20,686	15,736	14,688	4,945	-
Primary school students	33,229	22,239	16,000	15,189	5,147	-
Total population	214,545	150,028	122,006	113,320	40,702	-
<i>Educational Institution survey</i>						
Number of institutions	885	952	-	440	-	663
<i>Competency-based test</i>						
Number of institutions	-	186	-	440	-	309
Number of students	-	2,509	-	7,093	-	5,375

Sources: Chowdhury et al. (1999, 2002), Nath and Chowdhury (2001, 2009), Ahmed et al. (2006), Nath et al. (2014, 2015)

were common in all three test years. In 2008, primary sections of high schools, ebtedayee madrasas and ebtedayee sections of high madrasas were added. On the other hand, ebtedayee madrasa was kept in 2014 test, kindergartens were added but high schools and high madrasas were excluded. Sample size varied because of the variation in number of school type. As three major types were common in all three tests, national level estimates had no effect of this. Table 2.2 provides sample size for various surveys at a glance.

The sampling frame was always taken from the government sources such as Directorate of Primary Education (DPE) and the Bangladesh Bureau of Statistics (BBS). Again, the sampling procedures were similar in all cases. Statisticians who are part of the *Education Watch* initiative looked at the technical issues in deciding sampling strategies for the surveys.

**Weighting:** In most cases, especially when stratified sampling strategy was applied, sample size for each stratum was equal. However, they were unequal in the population. This required application of weights in order to get pooled estimates at the national as well as location (urban/rural) levels. Proportions of population were used as weights following standard statistical procedures. Weights used in analysing various data sets are available in the Annexes of the respective year's *Education Watch* reports.

**Respondents:** Heads of the households were the first choice as respondents for the household surveys. In their absence, their spouses were the second choice. If the spouses were not available, any adult member (18 years or older) of the households was considered. All interviews were held in the premises of the households (courtyards, verandas or drawing/sitting rooms). The respondents often received help from other members of households or their neighbours specifically in determining age of the household members.

Head teachers were the principal respondents for the Educational Institution Surveys which were held at the offices of the respondents. In cases where school records had to be consulted a few other teachers helped the heads in finding the correct information. Observations were solely done by our Research Assistants.

Competency-based learning achievement tests were administered in the classrooms of the sampled students. These were group tests. The whole procedure of the test was described to the students before

start and confirmed that all of them could understand it. Necessary stationery such as pencils, sharpeners and erasers were provided to each student.

Each interview was conducted and the test was administered by a team of two members. This helped ensuring smooth operation of fieldwork. The Research Assistants did all the fieldwork who were supervised by a separate team as well the main Research Team. Research and Evaluation Division of BRAC was responsible for training of Research Assistants and the Supervisors, smooth operation of field, data computerization, cleaning and analyses. Analysis of data for this study and preparation of the *Education Watch* 2015 report were also done in the Research and Evaluation Division of BRAC.

## E. Data analyses procedure

Basic statistics like percentage, percentage distribution, cumulative percentage distribution, quartiles, quintiles, mean, median, standard deviation, coefficient of variation, etc. were the main tools for analysing data. Single, bi-and-tri-variate analysis were mainly done. Appropriate statistical tests were carried out to see the significance of the differences. Multivariate analysis were also done. Operational definition of some of the indicators are given in Annex 2.2. Years will require to full achievement in some selected indicators were estimated using the current rate of progress. Instead of extrapolating the observed curve, Compound Growth Model was used for projection. Following is the formula for calculating the growth rate.

$$y_t = y_0(1 + r)^t$$

Where,  $y_t$  is the rate in current (latest) year

$y_0$  is the rate in base (initial) year

$t$  is the duration between base and current year, and

$r$  is the compound growth rate

The growth rate was then used in the following formula to project additional years required.

$$t_p = \log (y_e/y_t) \div \log (1 + r)$$

Here,  $y_e$  is the expected rate to achieve in future

$t_p$  is the projected duration to achieve  $y_e$

## F. Validity and reliability

The indicators and the issues considered as components of quality of primary education were taken from the two sets of indicators which the Directorate of Primary Education (DPE) uses to assess performance of primary education sector in Bangladesh. These are called Key Performance Indicators (KPI) and Primary Schools Quality Levels (PSQL). Moreover, some quality frameworks used by UNESCO (2005), Gobinda and Varghese (1993), Mayer *et al.* (2000), Chowdhury *et al.* (1997), Nath and Chowdhury (2001, 2009), and Nath (2006) were also consulted. All these helped framing a standard analytical framework and the indicators which is well grounded in the context of Bangladesh. One of the major output indicators is achievement of competencies. The competencies were adopted by the National Curriculum and Textbook Board (NCTB). The textbooks were also prepared based on these competencies. Thus, the study is validated taking into account expert wisdom and thoughts available on assessment of education quality, the national competencies for primary education, primary education assessment indicators of the government, and national priorities of primary education.

The household and school survey questionnaires and the competency-based test were developed by several groups of experts, field tested several times and discussed in *Education Watch Group* meetings. Appropriate statistical and educational procedures were followed throughout their development. Mostly the same instruments were used in several *Education Watch* studies which produced consistent estimates. Consistent estimates of the indicators and their similarity with the other studies help validate the instruments used. Details on the development of instruments and analytical procedures are available in previous *Education Watch* reports (Chowdhury *et al.* 1999, Nath and Chowdhury 2001, Ahmed *et al.* 2006, Nath and Chowdhury 2009, Nath *et al.* 2014, 2015).

Reliability of learning achievement test and other data used in this report is also an important issue. In order to measure the reliability of household survey, re-enumeration of 2-3% of households was done within 7-10 days of all the surveys. Enumerated and re-enumerated data were then matched using computers. This produced high rate of matching in most of the indicators (Table 2.3). Note that re-enumeration was not possible for Educational Institution Survey due to practical reasons, but the supervisors informally triangulated some of the information during their post enumeration visits.

Table 2.3

*Percentage of matching between survey and resurvey for selected indicators by year*

Indicators	Year				
	1998	2000	2005	2008	2013
Household size	97.8	96.6	97.2	96.9	98.3
Gender of HH members	99.6	98.7	98.7	98.6	98.7
Age of 6-10 years children	95.0	95.1	96.3	96.0	96.4
Years of schooling	98.0	97.6	96.4	95.8	96.4
Literacy status	-	96.7	97.8	97.5	97.3
Enrolment status	99.5	97.5	97.4	98.4	97.6
Mothers education	94.9	96.0	95.7	95.5	96.2
Fathers education	95.2	95.6	94.4	94.6	97.3
HH food security status	95.0	97.0	93.7	95.4	95.0

Sources: Education Watch Household Surveys and re-surveys, 1998, 2000, 2005, 2008, 2013

2000, Kuder-Richardson formula number 20 (or KR 20) was used to measure reliability of test data in 2008 and 2014 (Ferguson and Takane 1989, Carmines and Zeller 1979). This exercise was done separately for each type of school too. The coefficients were found between 0.90 and 0.93. These statistics ensure that the test data used in this study was satisfactorily reliable.

The item selection procedure during test development ensured reliability of each of the 64 items individually. Reliability of the whole test was assessed twice – once at the time of test development and again with the data gathered through national survey in 2000. Both showed that the test was more than 90% reliable (Nath and Chowdhury 2001). The whole test reliability was also checked using the test data of 2008 and 2014. Similar to

## G. Strengths and limitations

All necessary measures were taken in order to carry out scientific inquiry of quality of primary education so that strengths of the study increase and limitations reduced. However, like any other survey-based research this study shares both strengths and limitations. Strengths and limitations of this study are presented below.

### Strengths

1. This study provides the state of *quality of primary education* in 2014 as well as trends in various quality related indicators used in previous studies at different points in time which helps to understand the

progress of primary education provision in the country since 1998. This study provides an independent time-series history of quality improvement of primary education for the past one-and-a-half decade. No other study of this kind has been undertaken in Bangladesh.

2. Although data of various years were used in producing this report, the methodology including sampling and data collection procedure, and the instruments used were mostly the same for every year. This made comparison and trend analyses possible.
3. *Education Watch* conducted school survey and administered test in three major types of institutions in the various studies. This ensured representation of major provisions as well as majority of the primary students. Other selected types of institutions were also considered in some years. Overall, the school surveys and the achievement test covered 85-93% of all primary school students in the country. Note that Bangladesh had 10 types of primary educational institutions earlier which rose to 14. Studies done by the government often cover only two major types (viz., the government primary and registered private primary school).
4. Along with assessing quality of primary education at the national level this study assessed it by gender, location (urban/rural) and school type. This created scope for comparison among various sub-groups of schools and students, examine differences among them and analyse progress. Overall, analysis of equity in terms of above and socio-economic background of students consistently is a strength of this study.
5. National databases created by BBS, DPE and BANBEIS were used as sampling frame for all the surveys under *Education Watch*. The databases made the work easier in respect to drawing samples of educational institutions and having national estimates, making estimates more representative as well as deriving generalization.

### *Limitations*

1. Curriculum and textbooks are two important elements of quality of education. This study did not cover them. So, the full scenario of the state of quality of primary education could not be captured.
2. Classroom teaching-learning provision play a very important role in achieving quality of education. Only the *Education Watch* 2000 attempted to understand classroom cultures and practices. Thus, it was not possible to see changes over time in this regard. No information was collected about in-school student assessment provision. These limited the merit of this study.
3. Educational institution surveys and the learning achievement test did not cover certain types of schools and their students representing small numbers due to practical reason. As a result full representation of the primary education system in Bangladesh was not possible in this study. The study covered about 85% of the schools and students, as mentioned above.
4. The learning achievement test was administered only on the students of grade V. A deep understanding of school quality should include performance of students of other prior grades too.
5. Although the household survey was the strongest part in terms of representativeness of samples, validity of the estimates generated from them were based on correct determination of age of household members. It was the most difficult and time consuming task in household surveys. Although all possible steps were taken to get the best estimates as recommended by demographers some errors cannot be ruled out.





## Chapter 3

# The Primary Education Institutions





Establishment of education institutions and creating an enabling condition in them for learning are the basics of any education system. The *Education Watch* studies in the past documented existence of poor and inadequate physical and learning facilities in primary education institutions in Bangladesh. This chapter provides a description of the primary education institutions that were surveyed under *Education Watch* 2015. The indicators considered are essential for delivering quality education and fall in the area of *Input* in the overall framework of quality of education. Starting with history and location of the sampled schools, the chapter presents the indicators and variations in them by school type and location. To see the progress, we analyse the changes that have taken place since the time the first *Education Watch* report was available 15 years ago. Major indicators discussed in this chapter are physical facilities including teachers' rooms and classrooms, drinking water and toilet facilities, co-curricular activities, and some basic norms related to schooling.

### A. History and location of schools

The educational institutions sampled for this study were established at different times, with a few established over a century ago. In general, the government primary schools had longer history than those of any other types. These schools were originally established by the community at various phases of history but were taken over by the State in 1974 through government ordinance (Government of Bangladesh 1974). On the other hand, the non-formal primary schools are the most recent addition to the system. The oldest educational institution in the sample was established 212 years ago, in 1803.

Nearly a fifth of the educational institutions (all types) were established during the British period, i.e., prior to 1947, 11% during the Pakistan period (1948–1971), and 21.4% during 1972–1990. Nearly a half (48.5%) were established post-1990 (Annex 3.1). Majority of the government primary schools, which enrol more than half of the students, were established during the British period (58%). Two-thirds of the newly nationalized primary schools and 70.7% of the ebtedayee madrasas were established during the first two decades of Bangladesh. On the contrary, the non-formal schools were established recently, during the past one-and-a-half decades. Nearly 64.8% of the urban schools and 46.2% of the rural schools were established on or after 1991. It may be mentioned that most of the kindergartens and the non-formal primary schools, 93.3% of the newly nationalized primary schools, 88% of the ebtedayee madrasas and 14% of the government primary schools were established after the Independence of Bangladesh. Two-thirds of the rural and 81% of the urban schools also fall in this category.

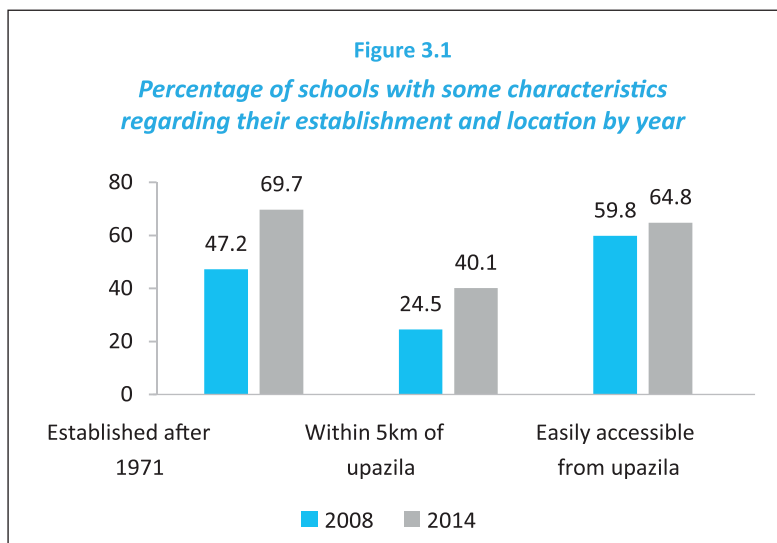
On average, the schools were established 34 years ago (Annex 3.1). This was 35 years for the rural schools and 25.5 years for the urban schools. School type-wise, this average was 72.4 years for government primary schools, 33.9 years for ebtedayee madrasas, 31.2 years for newly nationalized primary schools, 13.4 years for the kindergartens and about three years for the non-formal primary schools.

Distance between an educational institution and its *upazila* centre is an indication of its geographical remoteness. The average distance of the educational institutions from the respective *upazila* centres were 8.8 kilometres (Annex 3.2). On average, the rural schools were 9.7 kilometres away from the *upazila* centres and the urban schools 2.1 kilometres. Non-formal schools were supposed to be far away from the *upazila* centres (as these are set up by NGOs to reach the left-out children) but this was not necessarily the case. Thirty-six percent of the rural schools were over 10 kilometres away from *upazila* centres.

Apart from the distance, the extent of difficulty faced by children to reach the schools was also assessed. It was done separately for dry and wet seasons. A three point scale was used: *easy to reach*, *moderately*

*difficult to reach* and *hard to reach*.<sup>1</sup>In dry season, 80.5% of the schools could be accessed easily, 11.9% moderately and 7.6% hardly (Annex 3.3). The difficulty level increased during the wet season. As expected, rural schools were more likely to be difficult to reach compared to the urban schools. Kindergartens were the most easily accessible educational institutions in both the seasons. Similar information was also collected in 2008. Comparing the 2014 information with those of 2008 it can be said that the situation has improved in each of the above three aspects. This may be because of improvement in road transportation system in the country.

Reduction in the distance between home and school was also noticed during 2008–2014. In 2008, the nearest primary school was over 2 km. for 51.9% of the children. A dramatic change was observed in 2014 – nearly 80% of the households reported that nearest primary school was within a half kilometre of their home. Figure 3.1 presents some information on establishment of schools and their location for the years 2008 and 2014. This shows that the primary educational institutions were nearer to households and easily accessible to the children over time.



Sources: Education Watch Educational Institution Surveys, 2008, 2014

## B. Selected basic facilities

Basic facilities of an educational institution include land and school building, playground, electricity, garden, and overall surrounding conditions.

**Basic facilities:** On average, in 2014, 60.8% of the educational institutions were established on their own land and 63.8% of the institutions had buildings constructed for the school (Table 3.1). Rural educational institutions were 16–17 percentage points ahead of their urban counterparts in both. Most of the government primary schools, newly nationalized primary schools and the ebtedayee madrasas had their own land as well as own buildings. On the other hand, less than half of the kindergartens and a negligible portion of the non-formal primary schools had this. Less than a fifth of the educational institutions had disable-friendly school buildings (with access ramps). School type-wise, 38.7% of the government primary schools and 18.7% of the newly nationalized primary schools had buildings with ramps.

Fifty-seven percent of the primary educational institutions had playground; 57.8% in the rural areas and 50.3% in the urban areas (Table 3.1). Some of these institutions had no playground of their own but they could manage to have some unused land to use as playground. Such a case was mostly applicable for the kindergartens and the non-formal primary schools. Although most of the government and newly

<sup>1</sup> If the school could be reached by road most of the times of a normal year it was considered as *easy to reach*. If there were some obstacles like agricultural fields or small water body in between the school and *upazila* town it was considered as *moderately difficult*, and if the way was under water for major parts of the year it was considered as *hard to reach*.

**Table 3.1**  
**Percentage of schools having some basic facilities by school type and residence, 2014**

Facilities	School type					Residence		All
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
Own land	97.3	97.3	37.0	2.7	98.7	62.6	45.2	60.8
Own building	100.0	98.7	48.9	2.7	98.7	65.2	49.7	63.5
Disable-friendly building	38.7	18.7	8.0	0.0	4.0	18.3	14.1	17.8
Electricity	56.0	34.7	84.7	14.0	32.0	37.5	74.1	41.8
Playground	85.3	84.0	58.7	4.7	78.7	57.8	50.3	57.0
Garden	11.3	6.7	10.9	2.7	1.3	7.0	9.7	7.4

Source: Education Watch Educational Institution Survey, 2014

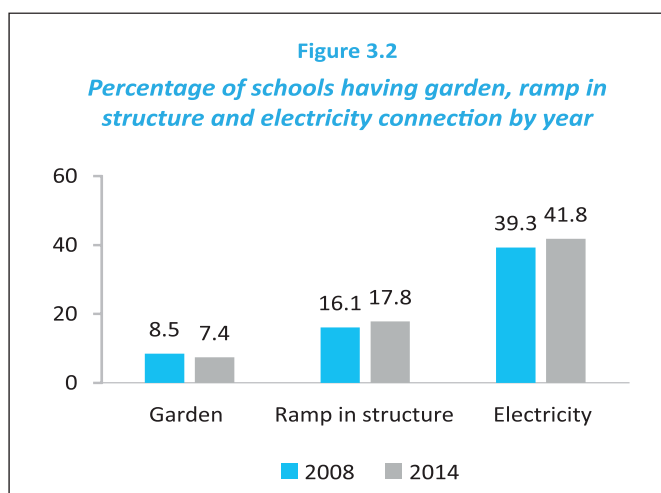
nationalized primary schools and the ebtedayee madrasas were established on their own land but a section of them kept no playground. About 15–16% of the government and newly nationalized primary schools and 21.3% of the ebtedayee madrasas had no playground. Less than 5% of the non-formal primary schools and 58.7% of the kindergartens had playground.

On average, 41.8% of the educational institutions had electricity connection (Table 3.1). School type-wise variation was also prominent. Kindergartens were much ahead of others in this followed by the government primary schools. Almost an equal proportion of the newly nationalized primary schools and the ebtedayee madrasas had electricity facility – 34.7% and 32% respectively. Only 14% of the non-formal schools had electricity connection.

Setting up a flower garden in the school premise was not a popular practice. Such a garden was found only in 7.4% of the schools – with much lower proportions among non-formal schools and madrasas. Figure 3.2 shows that percentage of schools with a garden decreased between 2008 and 2014. However, percentage of schools with ramps in structure and electricity connection increased slightly during the same period (2008–2014).

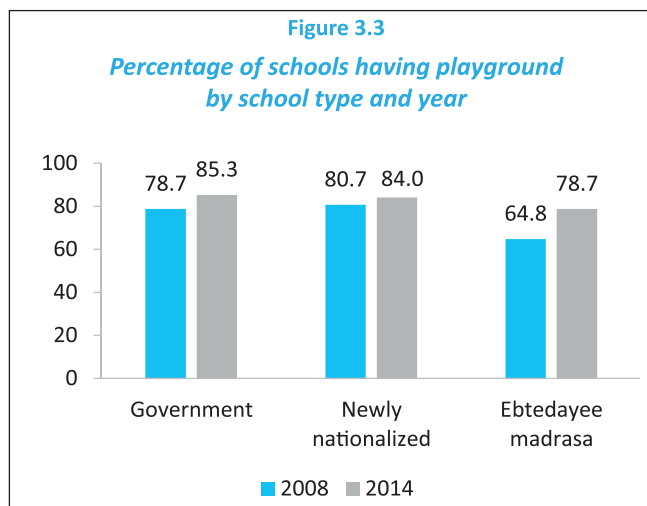
In 2008 and 2014, most of the government and newly nationalized primary schools and the ebtedayee madrasas had their own land.

No comparison is possible for kindergartens as they were not studied in 2008. As majority of these were established in rented houses, the total average of schools having own land tremendously declined over time. The same was observed for schools having own building. However, improvement was noticed in electricity connection in schools and having structures with a ramp. Proportion of schools having playground also increased in the cases of government and newly nationalized primary schools and the ebtedayee madrasas (Figure 3.3).



Sources: Education Watch Educational Institution Surveys, 2008, 2014

**Cleanliness:** Cleanliness of the floors of classrooms and corridors and walls of classrooms and the school buildings was examined. In 2014, floors of the school houses were found to be clean in 58.8% of the schools, dust was found on the floors in 20.9% of the schools and both dust and waste papers were found on the floors in 20.3% of the schools (Table 3.2). The non-formal schools were better than other types of school, with clean floors in 86.1% of the schools. A similar type of cleanliness was observed in three types of schools, viz., government and newly non-government primary schools and the kindergartens. The condition was very poor in the ebtedayee madrasas. Overall, not much variation was observed between urban and rural schools.



Sources: Education Watch Educational Institution Surveys, 2008, 2014

**Table 3.2**  
*Cleanliness of floors and walls of school buildings by school type and residence, 2014*

Indicators	School type					Residence		All
	Government	Newly national	Kinder-garten	Non-formal	Ebteda-ye	Rural	Urban	
Floors								
Dust, papers on floors	21.2	26.8	29.9	9.3	44.0	20.7	16.9	20.3
Dust on floors	32.5	24.2	23.4	4.6	26.7	20.4	24.8	20.9
Clean floors	46.4	49.0	46.7	86.1	29.3	58.9	58.3	58.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Walls								
Clean and painted	59.3	52.3	38.4	8.0	14.7	37.5	46.4	38.6
Painted but unclean	26.7	29.5	13.8	4.0	13.3	18.5	17.9	18.4
Not painted but clean	6.7	11.4	32.6	62.7	33.3	29.0	25.8	28.5
Not painted and unclean	6.0	4.0	10.9	14.7	34.7	10.2	5.2	9.5
No wall	1.3	2.7	4.3	10.7	4.0	4.8	4.8	4.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

Walls of two-thirds of the school houses were found to be clean in 2014, though most could benefit from a coat of paint (Table 3.2). Urban schools were ahead of the rural schools in terms of clean walls. Compared to others, government and newly nationalized primary schools had a tendency to paint the walls; however, a good portion of them did not keep them clean. Kindergartens and non-formal schools had a general tendency to keep the walls clean. Overall, not much improvement was observed in this respect between 2008 and 2014.

**Quietness of the surroundings:** Quietness of the surroundings of the educational institutions in a normal day was assessed on a three point scale. These were *calm and quiet*, *slightly noisy*, and *noisy*. Assessment was

done through direct observation by the research assistants; however, discussions were also held with the school heads and others as required. Overall, surroundings of 59% of the surveyed schools were found to be *calm and quiet*, 35.1% *slightly noisy* and 5.9% *noisy* (Table 3.3). Rural schools were more likely to be established in *quite* places compared to their urban counterparts. This information was not available for 2008.

### C. The classrooms and teachers' rooms

**Classrooms:** On average, the educational institutions had 3.7 classrooms in 2014; 3.4 in rural areas

and 5.6 in urban areas (Table 3.4). School type-wise analysis shows that the kindergartens had the highest number of classrooms and the non-formal schools (by design) had the least. The former, on average, had 7.2 classrooms each and the latter were single classroom schools. Among others, the government primary schools had 4.9 classrooms, the newly nationalized primary schools had 3.4 and the ebtedayee madrasas had 3.7 classrooms.

Overall, in 2014, 15.6% of the classrooms could be termed as disable-friendly because these could be accessed using ramps attached with them (Table 3.4). This was the case for 16.5% of the classrooms of rural schools and 11.6% of those of urban schools. Such facility was available for 21.8% of the classrooms in government primary schools, 13.9% of those in newly nationalized primary schools, 10.5% of those in kindergartens, 6.1% of those in ebtedayee madrasas and 5.5% of those in non-formal schools. It is noteworthy that only 5% of the primary classrooms were disable-friendly in 2008.

The government has decided 507 sq. ft. (26'x19'6'') as a standard of classroom size in primary schools and there is an intention to increase proportion of such classrooms in the schools. In 2014, only 8% of the classrooms surpassed this criterion. (Table 3.4). School type-wise, 12.5%

Table 3.3

#### Quietness of school surroundings by school type and residence, 2014

School type/ residence	Quietness			
	Calm and quiet	Slightly noisy	Noisy	Total
<i>School type</i>				
Government	56.3	36.4	7.3	100.0
Newly nationalized	80.0	17.3	2.7	100.0
Kindergarten	40.6	44.2	15.2	100.0
Non-formal	54.0	42.7	3.3	100.0
Ebtedayee madrasa	68.0	28.0	4.0	100.0
<i>Residence</i>				
Rural	60.8	34.1	5.1	100.0
Urban	44.1	43.4	12.4	100.0
All	59.0	35.1	5.9	100.0

Source: Education Watch Educational Institution Survey, 2014

Table 3.4

#### Some information on classrooms by school type and residence, 2014

School type/ residence	Quietness		
	Mean number	Disable friendly (%)	Size 507 sq. ft.+ (%)
<i>School type</i>			
Government	4.9	21.8	12.3
Newly nationalized	3.4	13.9	6.3
Kindergarten	7.2	10.5	3.3
Non-formal	1.0	5.5	4.8
Ebtedayee madrasa	3.7	6.1	6.1
<i>Residence</i>			
Rural	3.4	16.5	8.5
Urban	5.6	11.6	5.9
All	3.7	15.6	8.1

Source: Education Watch Educational Institution Survey, 2014

of the classrooms in the government primary schools, 6.3% in the newly nationalized primary schools, 6.1% in the ebtedayee madrasas, 4.8% in the non-formal schools, and 3.3% in the kindergartens were of the above size or bigger. The average size of classrooms was 327.4 sq. ft. with a median of 323 sq. ft.

With a classroom for pre-primary education, each primary educational institutions should have at least six classrooms. In 2014, six or more classrooms were available in 78.7% of the kindergartens, 24.6% of the government primary schools, 5.2% of the newly nationalized primary schools, and 9.3% of the ebtedayee madrasas (Table 3.5). If five classrooms are considered as standard the proportions would be 90.4% for the kindergartens, 53.9% for the government primary schools, 33.3% for the ebtedayee madrasas and 16.5% for the newly nationalized primary schools. Non-formal primary schools were excluded from this analysis because separate schools are established for providing pre-primary education under this provision.

**Table 3.5**  
*Percentage distribution of schools by number of classrooms and school type, 2014*

Number of classroom	School type			
	Govern ment	Newly nationl	Kinderg arten	Ebteda yee
≤4	46.1	83.5	9.3	66.7
5	29.3	11.3	11.7	24.0
6+	24.6	5.2	78.7	9.3
Total	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

In 2014, 62% of the classrooms were fully made of bricks, 22.3% a combination of bricks and corrugated iron sheets, 11.7% fully of corrugated iron sheets and 4% a combination of corrugated iron sheets and other materials like straw, leaves, etc. (Table 3.6). The government and the newly nationalized primary schools were ahead of others in terms of the classrooms fully made of bricks. Most of the classrooms of the government and the newly nationalized primary schools and the kindergartens were fully made of bricks or a combination of bricks and corrugated iron sheets. On the other hand, majority classrooms of the non-

**Table 3.6**  
*Percentage distribution of classrooms in terms of construction materials and overall condition by school type and residence, 2014*

Indicators	School type					Residence		All
	Gover nment	Newly national.	Kinder- garten	Non- formal	Ebtada yee	Rural	Urban	
<i>Construction materials</i>								
Fully brick	75.6	94.0	38.7	1.8	14.7	62.9	57.5	62.0
Brick and tin-coated iron sheet	20.5	1.8	39.7	25.0	33.5	19.9	34.1	22.3
Fully tin-coated iron sheet	3.7	2.0	17.5	50.6	34.9	12.7	6.9	11.7
Tin-coated iron sheet and others	0.3	2.2	4.1	22.6	16.9	4.5	1.5	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Overall condition of classrooms</i>								
Fully all right	73.5	74.8	55.3	27.4	19.1	63.9	63.6	63.9
Major parts all right	14.5	12.9	25.1	37.2	24.5	18.7	21.3	19.1
Half part all right	7.3	6.0	16.2	27.8	32.4	11.2	13.7	11.6
Major part dilapidated	3.4	5.6	2.7	7.3	17.6	4.9	1.3	4.3
Fully dilapidated	1.2	0.8	0.6	1.2	6.5	1.3	0.1	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014



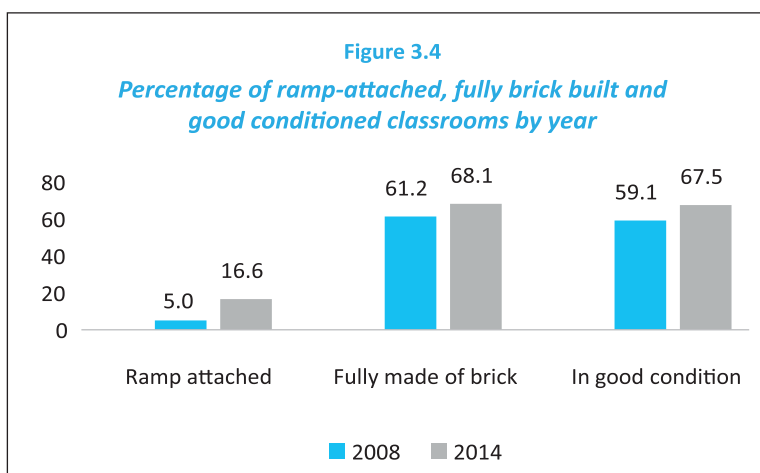
formal primary schools and the ebtedayee madrasas were fully made of corrugated iron sheets or a combination of corrugated iron sheets and hemp.

Overall condition of the classroom structures were assessed irrespective of the construction materials. In 2014, nearly 64% of the classrooms were found to be satisfactory, about 20 percent had parts of classrooms not useable, and over 5% were in a dilapidated condition (Table 3.6). Overall condition of the urban schools was slightly better than their rural counterparts. School type-wise analysis shows that about three-quarters of the classrooms of the government and newly nationalized primary schools were fully all right. It was 55.3% in the case of kindergartens, 27.4% in the case of non-formal schools and 19.1% in the case of ebtedayee madrasas.

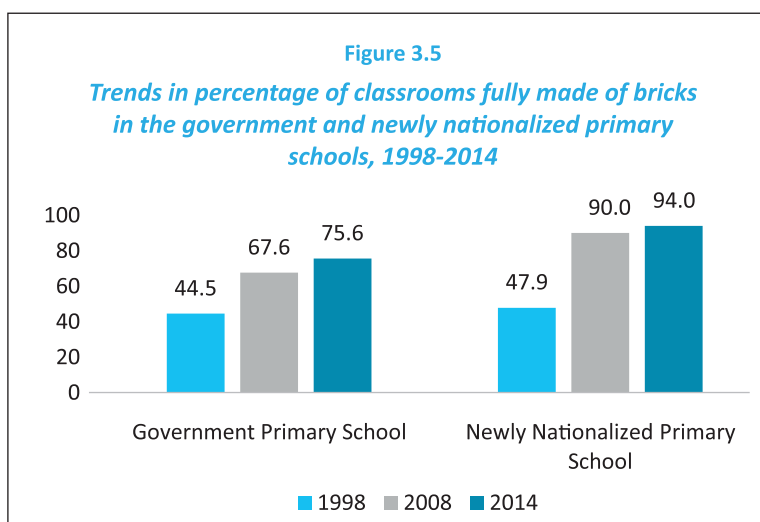
In order to see the changes over time, non-formal schools were excluded from the analysis because these were single room schools and construction materials were totally different than other types of schools. Excluding the non-formal schools, the other types of schools, on average, had 4.4 classrooms in 2008 which increased to 4.8 in 2014. In 2008, 46.9% of the primary educational institutes had at least five classrooms which increased to 50.6% in 2014. Increase was also noticed in the proportion of disabled-friendly classrooms (ramp attached), classroom construction materials and overall condition of them (Figure 3.4).

Construction materials of the classrooms of the government and newly nationalized primary schools are available for three periods, viz., 1998, 2008 and 2014. Figure 3.5 shows how these two types of schools structure improved over time. In 1998, 44.5% of the classrooms of the government primary schools were made of bricks which increased to 75.6% in 2014. These figures were 47.9%, 90% and 94% respectively in the case of newly nationalized primary schools. These improvements were statistically significant ( $p < 0.001$ ).

Close observation of the classrooms gave a sense of natural light and air flow in most of the classrooms under study (about 97%) (Table 3.7). Although more than 90% of the classrooms of each type of schools had natural light and air flow in a normal weather, some classrooms of kindergartens as well as non-formal schools and the ebtedayee madrasas



Sources: Education Watch Educational Institution Surveys, 2008, 2014



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014



had obstructions that barred light and ventilation (Table 3.7). Proportionately more classrooms of rural schools had natural light and air flow than those of urban schools.

Nearly 44% of the classrooms had electric lights and 46% had electric fans (Table 3.7). The urban schools were much ahead of the rural schools in this respect. About 85% of the urban classrooms had electric light and 85.2% had electric fan. These figures for rural schools were 36.1% and 37.7%, respectively. Among five types of schools, kindergartens were much ahead of others in both the cases with 75.9% of the classrooms having electric lights and 78.7% having fans. The government primary schools were at the forefront of the other types of schools. Very small number of the classrooms of non-formal schools had electric lights or fans.

Improvement was also noticed over time in terms of having electric lights and fans in the classrooms. Figure 3.6 shows percentage of classrooms having these facilities in 2008 and 2014. Non-formal schools were excluded from this analysis too. On average, around a quarter of the classrooms had electric lights and fans in 2008 which almost doubled by 2014.

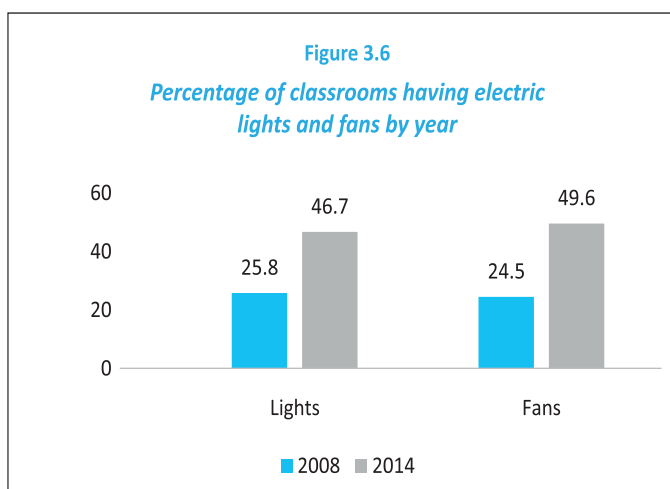
**Classroom capacity:** Seating capacity of the classrooms was assessed on the basis of a modest criterion of 18 inches of space per student on a bench or a mat. On average, each classroom had capacity of 39.6 students out of 44.4 registered (Table 3.8). This means that 88.4% of the registered students could seat with ease if all of them attended. Seating capacity per classroom was 38.6 in rural schools and 46.3 in urban schools. If all students attended, 88.7% could seat with ease in rural schools and 92.8% in urban schools.

Classroom capacity varied in terms of school type. It was highest in the government primary schools (44.8 students per classroom) followed by the kindergartens

**Table 3.7**  
*Percentage of classrooms with light and air by school type and residence, 2014*

School type/ residence	Natural flow of...		Having electric...	
	Light	Air	Light	Fan
<i>School type</i>				
Government	99.2	98.9	38.3	44.4
Newly nationalized	99.6	100.0	29.8	26.0
Kindergarten	92.2	92.0	75.9	78.7
Non-formal	93.9	92.7	15.8	9.8
Ebtedayee madrasa	95.3	93.9	28.4	27.7
<i>Residence</i>				
Rural	97.7	97.4	36.1	37.7
Urban	93.6	93.5	80.9	85.2
All	97.0	96.7	43.9	46.0

Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 2008, 2014

**Table 3.8**  
*Seating capacity in the classrooms by school type, 2014*

School type	Mean number of students...		
	Registered	Can seat with ease	%
Government	54.3	44.8	82.5
Newly nationalized	39.3	35.3	89.8
Kindergartens	37.2	39.8	107.0
Non-formal	26.6	29.7	111.7
Ebtedayee madrasa	26.7	23.2	86.9
All	44.4	39.6	88.4

Source: Education Watch Educational Institution Survey, 2014

(39.8 students per classroom), the newly nationalized primary schools (35.3 students per classroom), and the non-formal schools (29.7 students per classroom). It was least in the ebtedayee madrasas with 23.2 students per classroom.

Comparing the classroom capacity with the admitted students it was observed that more students than capacity was admitted in the newly nationalized primary schools, ebtedayee madrasas and government primary schools. An opposite scenario was observed in the non-formal primary schools and the kindergartens. Separate analyses for urban and rural schools of each type are provided in Annex 3.4.

Capacity of the primary classrooms has increased over time. For instance, in 1998, only 32 students could seat with ease in a primary classroom which increased to 39.6 in 2014 (Table 3.9). In other words, only two-thirds of the registered students could seat with ease in 1998 which increased to 89.8% in 2008 and continued afterwards. Increase in classroom capacity was evident in each type of schools under study (Table 3.9). Capacity of a government school classroom was 35.1 in 1998 which increased to 39.7 in 2008 and 44.8 in 2014. These figures in the newly nationalized primary schools were 26.7, 33.5 and 35.3, respectively. In kindergartens, it increased from 23 in 1998 to 39.8 in 2014. It was almost equal in the non-formal schools and no change was noticed in the ebtedayee madrasas after 2008.

Analysis on whether classroom capacity was enough to accommodate all the students attended in schools is provided in Chapter 6 where students' attendance is discussed.

**Teachers' rooms:** Some schools have separate office/seating rooms for head teacher and other teachers while others have a combined room for both. About 99% of the government and the newly nationalized primary schools and the kindergartens had teachers' office rooms (Table 3.10). A combined room for teachers was found in each of the newly nationalized primary schools. A separate office room for the head teachers was found in 4% of the government primary schools and 29.2% of the kindergartens. Over a fifth of the ebtedayee madrasas had no teachers' room. Most of the non-formal schools also followed the same. Overall, 69.1% of the educational institutions had teachers' rooms; 68% among rural and 76.9% among urban schools.

About a fifth of the teachers' rooms was disable-friendly; 19.8% among rural schools and 14.3% among urban schools (Table 3.10). Disable-friendly teachers' rooms were found in a quarter of the government

**Table 3.9**

*Trends in mean number of students can seat with ease in classrooms by school type, 1998–2014*

School type	Year		
	1998	2008	2014
Government	35.1	39.7	44.8
Newly nationalized	26.7	33.5	35.3
Kindergartens	23.0	-	39.8
Non-formal	28.9	30.9	29.7
Ebtedayee madrasa	20.4	23.0	23.2
All	32.0	37.0	39.6

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

**Table 3.10**

*Percentage of schools having teachers room by school type and residence, 2014*

School type/ residence	Teachers' room	Disable-friendly
<b>School type</b>		
Government	98.7	25.2
Newly nationalized	98.7	17.4
Kindergarten	98.5	11.2
Non-formal	2.7	0.0
Ebtedayee madrasa	78.6	5.0
<b>Residence</b>		
Rural	68.0	19.8
Urban	76.9	14.3
All	69.1	19.0

Source: Education Watch Educational Institution Survey, 2014

primary schools, 17.4% of the newly nationalized primary schools, 11.2% of the kindergartens and 5% of the ebtedayee madrasas.

Teachers' rooms were better than those of the classrooms in terms of construction materials and overall condition. For instance, 77.2% of the teachers rooms were fully made of bricks and 15.2% made of bricks and corrugated iron sheets (Annex 3.5). Again, overall condition of 77% of the teachers' rooms was fully all right irrespective of construction materials and major part of 11.8% of the rooms was all right. Ninety-seven percent of the rooms had natural light and air flow in a normal day (Annex 3.6).

Teachers' rooms were also better conditioned in terms of having electric lights and fans as well as disable-friendliness. Of all teachers' rooms, 55.8% had electric lights and 54% had fans (Annex 3.6). These figures were respectively 85.5% and 82.1% for the kindergartens, 56.1% and 57.1% for the government primary schools, and 33.8% and 28.4% for the newly nationalized primary schools. Nearly 32% of the ebtedayee madrasas had electric lights and a similar proportion of them had electric fans.

#### D. Drinking water and toilet facilities

*Drinking water:* In general, the schools had arrangements for pure drinking water in the school premises. Source of drinking water for the students and teachers in schools was tube well or deep tube well. Overall, 57.3% of the schools had tube well as source of drinking water and 32.8% had deep tube well; totalling 91% (Table 3.11). Although these two were the major sources of drinking water in rural schools, tap or supply water (through pipe) was also found in urban schools in addition to these two. Over 91% of the rural schools 79.6% of the urban schools had tube or deep tube well as source of drinking water. In addition, 15.9% of the urban schools had arrangement for tap or supply water (through pipe).

School type-wise analysis also shows that tube well or deep tube well was the major source of drinking water in each type of school (Table 3.11). In addition, 13.9% of the kindergartens and a few of the others had arrangement for tap or supply water (through pipe). Surprisingly, 9.3% of the non-formal schools, 8%

Table 3.11

*Distribution of schools by sources of drinking water and water quality, school type and residence, 2014*

Indicators	School type					Residence		All
	Government	Newly national.	Kinder-garten	Non-formal	Ebtedayee	Rural	Urban	
Drinking water Source								
Tap/supply	4.0	4.0	13.9	0.7	4.0	2.7	15.9	4.2
Deep tube well	36.7	38.0	29.9	25.8	38.7	33.9	25.5	32.8
Tube well	56.7	52.0	55.5	62.9	48.0	57.5	54.1	57.3
Pond, haor, river	1.3	2.7	0.7	1.3	1.3	1.6	0.0	1.5
None	1.3	3.3	0.0	9.3	8.0	4.3	4.5	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Safe water (%)	94.6	91.3	95.7	88.0	89.3	91.9	89.7	91.8
In-campus source (%)	86.7	83.4	83.2	49.3	66.7	73.4	75.5	73.7
Arsenic free water (%)	86.7	76.8	74.6	71.5	70.7	79.1	70.1	78.2

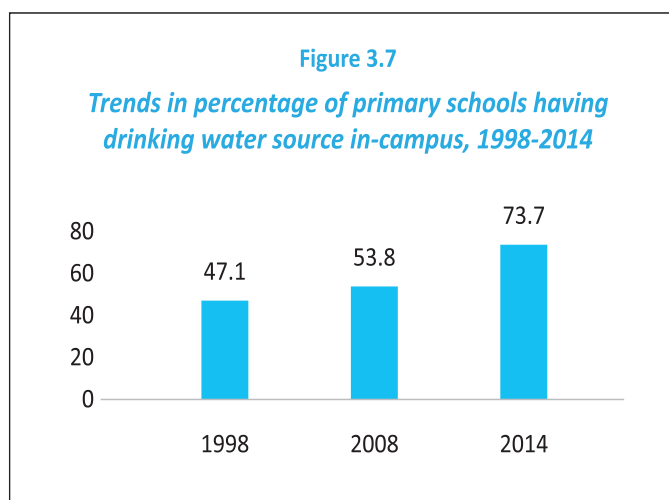
Source: Education Watch Educational Institution Survey, 2014

of the ebtedayee madrasas, 3.3% of the newly nationalized primary schools and a few of the other types had no provision of drinking water in schools.

Overall, nearly 74% of the schools had drinking water source in the school premises (Table 3.11). Urban schools were slightly ahead of the rural schools in this case. Over 80% of each of the government and newly nationalized primary schools and the kindergartens had source of drinking water in school premises. On the other hand, two-thirds of the ebtedayee madrasas and about a half of the non-formal schools had this.

Over 90% of the heads of the institutions claimed that the drinking water in their schools was safe and there was not much variation by school type or location of the school. Over 78% of those who used tube or deep tube well water also claimed that their water was arsenic free. This rate was 79% in rural and 70% in urban areas. Heads of the 86.7% of government primary schools, 76.8% of newly nationalized schools, 74.5% of kindergartens, 71.5% of non-formal schools and 70.7% of the ebtedayee madrasas also reported arsenic free drinking water in schools.

In 1998, 7% of the primary educational institutions had no facility for drinking water which reduced to 5.8% in 2008 and to 4.2% in 2014. Although declining over time, still there are some schools without drinking water facility for students or teachers. Major improvement was found in establishing drinking water source on campus. For instance, in 1998, 47.1% of the schools had drinking water source on campus which increased to 53.8% in 2008 and to 73.7% in 2014 (Figure 3.7). This along with 91.8% of the sources reported as safe signifying increased drinking water facility in the primary educational institutions.



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

**Toilet facility for students:** In 2014, common toilets were being used by both boys and girls in 64.2% of the primary educational institutions and separate arrangement was available in another 24.3% of the institutions (Table 3.12). There was no toilet facility for the students of 10.6% of the schools. Separate toilets for girls was available for 23.1% of the rural and 33.4% of the urban schools; however, common toilets were used by the students of 64.4% of the rural and 62.4% of the urban schools. School type-wise analysis also shows that common toilet facility was prominent in each type of school than separate facility. Separate facility was available more in the government primary schools than the other types.

No toilet facility was available in 11.5% of rural and 4.1% of urban schools (Table 3.12). This was also the case in 23.3% of the non-formal schools, 17.3% of the ebtedayee madrasas, 6% of the government primary schools and 5.3% of the newly nationalized primary schools. All kindergartens had a common or separate toilet facility.

Table 3.12

*Percentage distribution of schools by various arrangement of toilet facility for students, 2014*

Various arrangement of toilet	School type					Residence		All
	Government	Newly national.	Kinder-garten	Non-formal	Ebtodayee	Rural	Urban	
Separate for girls and boys	42.0	30.0	29.0	0.0	8.0	23.1	33.4	24.3
Common for both	49.3	64.7	71.0	76.7	72.0	64.3	62.4	64.2
Only for boys	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
Only for girls	2.7	0.0	0.0	0.0	1.3	1.1	0.0	0.8
No facility	6.0	5.3	0.0	23.3	17.3	11.5	4.1	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

Majority of the schools having toilet facility for students had sanitary latrine (Table 3.13). They were 70.8% of the schools having toilet facility. Among others, 17.3% had water sealed ring-slab, 9.7% had ring-slab without water seal and 2.2% had pit latrine. Sanitary latrine was found in 69.1% of rural and 82.1% of urban schools. In addition, 18.5% of rural and 9% urban schools had water sealed ring slab. Sanitary latrine was found in 91.5% of government and 85.1% of newly nationalized primary schools and 83.3% of the kindergartens. On the other hand, 24.3% of non-formal schools had sanitary latrine and 38.3% had water sealed ring-slab. These figures were 64.5% and 25.6% respectively for the ebtedayee madrasas.

Table 3.13

*Percentage distribution of schools by type of students' toilets, 2014*

Type of toilet	School type					Residence		All
	Government	Newly national	Kinder-garten	Non-formal	Ebtodayee	Rural	Urban	
Sanitary	91.5	85.1	83.3	24.3	64.5	69.1	82.1	70.8
Ring-slab (water sealed)	7.1	12.1	10.9	38.3	25.8	18.5	9.0	17.3
Ring-slab (without w.s.)	1.4	2.8	5.8	29.6	8.1	10.0	8.2	9.7
Pit	0.0	0.0	0.0	7.8	1.6	2.4	0.7	2.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

Soap was found for hand washing in the toilets of 36.8% of the schools (Annex 3.7). This figure was 35% in rural schools and 49.8% in urban schools. School type-wise, 52.2% of the kindergartens, 43.3% of the government schools, 35.9% of the newly nationalized schools, 22.6% of the non-formal schools and 11.3% of the ebtedayee madrasas had soap in toilets for use after defecation. Only 2% of the toilets were disable-friendly.

Cleanliness of the students' toilets was examined. Overall, it was found clean in 62.1% of the schools, moderately clean in 32.1% of the schools and unclean in 19.4% of the schools (Table 3.14). Kindergartens were doing better than others in keeping the toilets clean, followed by the government and newly nationalized primary schools, ebtedayee madrasas and non-formal primary schools respectively. Proportionately more urban schools had clean toilets than their rural counterparts.

**Table 3.14**  
*Percentage of schools by cleanliness of toilets, school type and residence, 2014*

Level of cleanliness	School type					Residence		All
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
Clean	81.0	67.7	94.8	25.2	37.3	58.8	87.0	62.1
Moderately clean	35.0	36.9	23.2	29.6	30.7	32.6	28.7	32.1
Unclean	19.8	20.1	11.2	21.9	22.7	20.2	13.8	19.4
No facility	6.0	5.3	0.0	23.3	17.3	11.5	4.1	10.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

Common (for both gender) toilets were less likely to be cleaned than the separate toilets (Table 3.15). Again there was not much variation in cleanliness of boys and girls toilets. For instance, two-thirds of the boys' toilets and 68.3% of the girls' toilets were found to be clean which was 44.8% for the common toilets. Similar scenario was observed when proportion of moderately clean toilets were added with the above figures.

Figure 3.8 presents trends in toilet facility for the students and their cleanliness. These toilets may be separate for boys and girls or combined for both; however, all students had access to those. Overall, over two-thirds of the primary schools had toilet facility for all students in 1998 which increased to 70.4% in 2008 and to 88.5% in 2014. Starting with below 10% in 1998, a fifth of the students' toilets were found clean in 2008. The figure increased to 62.1% in 2014. Although a good portion of the schools still lack toilet facility, the gap between the proportions having toilets and toilets that are clean have narrowed during 1998–2014.

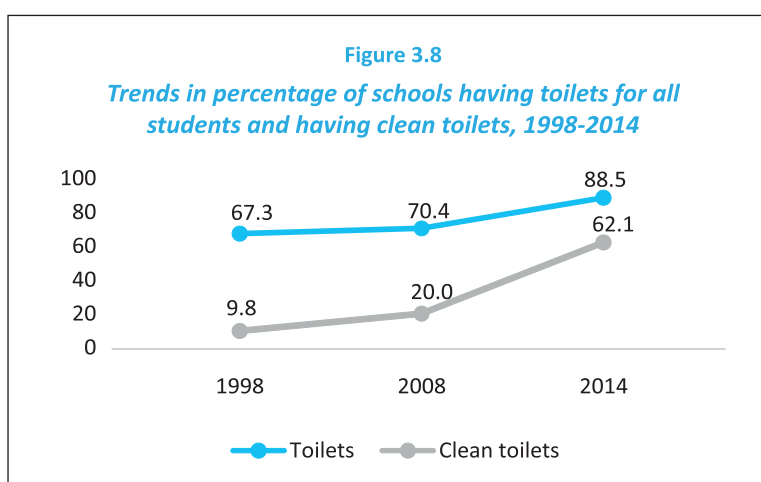
**Toilet facility for teachers:** Majority of the educational institutions under

study did not have separate toilet facility for teachers. On average, 43.5% of the educational institutions had separate toilet facility for the teachers (Table 3.16). This was the case for 42.5% of the rural and 51% of the urban schools. The government primary schools were much ahead of the others in this case. Separate toilet facility for teachers was available in 81.3% of the government and 44% of the newly nationalized primary schools and 48.6% of the kindergartens. A fifth of the ebtedayee madrasas and a negligible portion of non-formal schools had separate toilet for teachers. Only a few of these toilets (3.1%) were specific to

**Table 3.15**  
*Cleanliness of toilets (% of schools) by gender, 2014*

Level of cleanliness	Boys toilets	Girls toilets	Common toilets
Clean	66.3	68.3	44.8
Moderately clean	22.4	19.7	33.8
Unclean	11.3	12.0	21.4
Total	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014



the males or females. This means that in most cases the male and female teachers used common toilets. Separate toilet facility was available in 1.9% of rural and 12.4% of urban schools. Teachers' toilets were mostly sanitary in type.

**Table 3.16**  
*Condition of teachers' toilets (% of schools), 2014*

Teachers toilets	School type					Residence		All
	Government	Newly national	Kinder-garten	Non-formal	Ebtedayee	Rural	Urban	
Teachers separate toilet	81.3	44.0	48.6	1.3	20.0	42.5	51.0	43.5
Separate by gender	4.0	1.3	10.9	0.0	2.7	1.9	12.4	3.1
<i>Distribution of toilet by type</i>								
Sanitary	74.7	40.4	45.3	1.3	18.7	39.0	47.4	40.1
Ring-slab (water sealed)	5.3	4.0	2.9	0.0	1.3	3.0	3.4	3.0
Ring-slab (without w.s.)	1.3	0.0	0.0	0.0	0.0	0.5	0.3	0.4
Pit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No toilets	18.7	55.6	51.8	98.7	80.0	57.5	48.8	56.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

Considering both students' and teachers' toilets it was found that 9.4% of the educational institutions had no toilet at all; it was not clean and unusable in another 13.8% of the institutions (Annex 3.8). This means that 76.8% of the educational institutions had at least one clean and usable toilet. One such toilet was found in 33.8% of the schools, two in 23.3% of the schools, three in 13.4% of the schools and four or more in 6.3% of the schools. On average, the study schools had 1.6 clean and usable toilets; 1.6 in rural and two in urban schools.

An interesting relationship was observed between having separate toilet facility for the teachers and toilet facility for the students. Schools which had separate arrangement for the teachers, 2.8% of them had no facility for the students. On the other hand, among the schools where there was no separate facility for the teachers 16.5% of them had no facility for the students. Again, sanitary or water sealed ring slab toilets (indicating hygienic) were available for the students of 95.6% of the schools if the teachers had separate toilets; otherwise, it was 65.9%.

## **E. Provision for pre-primary education**

One of the PSQL indicators of DPE is having provision for pre-primary education in the primary educational institutions. As the non-formal schools don't have primary and pre-primary education together in one campus these were excluded from this analysis. About three-fifths of the other four types of primary institutions had provision for pre-primary education (Table 3.17). This was the case for about three-quarters of the urban primary schools and 57.3% of those in rural areas. Most of the government primary schools and the kindergartens had provision for pre-primary education which was 62% among the newly nationalized primary schools and 29.3% of the ebtedayee madrasas.

Separate classroom for pre-primary education was available in 45% of the institutions and only a quarter of the institutions had specific teacher for such education (Table 3.17). School type as well as residence-

wise variation was observed in both. In rural areas, 42.7% of the schools had this provision and 23.2% had specific teacher for it. These figures were 61.7% and 31.2%, respectively in the urban areas.

Separate classroom for pre-primary education was available in 86.2% of the kindergartens, 80.7% of the government and 30% of the newly nationalized primary schools. On the other hand, specific teacher for pre-primary education was found in 40% of the government primary schools, 22.5% of the kindergartens and 2.7% of the newly nationalized primary schools. Only 14.7% of the ebtedayee madrasas had separate classroom for pre-primary education and 1.3% had specific teacher for this. It should be noted that the teachers who were specifically appointed for teaching at pre-primary level also taught in various grades of primary level.

Percentage of schools with a provision of pre-primary education has increased over time. About a fifth of the primary educational institutions had provision for pre-primary education in 1998 which increased to 26% in 2008 and reached about 60% in 2014 (Figure 3.9). About a fifth of the rural schools had this provision in 1998 and 2008 which reached 57.3% in 2014. On the other hand, 23.9% of urban schools had provision for pre-primary education in 1998 which increased to 32.8% in 2008 and 74.9% in 2014. A fifth or less proportion of the government and the newly nationalized primary schools had provision for pre-primary education during 1998–2008 which reached to 96% and 62%, respectively in 2014. On the other hand, 13.3% of the ebtedayee madrasas had this in 1998 which increased to 19% in 2008 and 29.3% in 2014.

## F. School library and blackboards

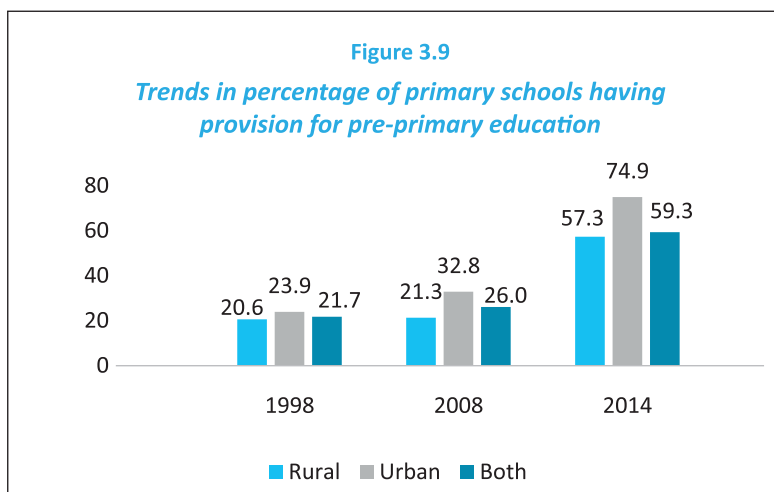
**School library:** School library was not commonly found in primary educational institutions. Overall, 12.6% of the primary educational institutions had library facilities, but only 1.3% had a separate room for it (Table 3.18). The others put bookshelves in the teachers' or head teachers' rooms. A separate room for library was found in 0.8% of the rural and 5.5% of the urban primary schools. This was available in 3.6% of the

Table 3.17

*Percent of schools having provision for pre-primary education, separate classroom for pre-primary and specific teachers appointed to teach there, 2014*

School type/ residence	Provisions	Separate classroom	Specific teachers
<i>School type</i>			
Government	96.0	80.7	40.0
Newly nationalized	62.0	30.0	2.7
Kindergarten	98.5	86.2	22.5
Non-formal	-	-	-
Ebtedayee mardasa	29.3	14.7	1.3
<i>Residence</i>			
Rural	57.3	42.7	23.2
Urban	74.9	61.7	31.2
All	59.3	45.0	24.6

Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014



kindergartens, 1.3% of each of the government and newly nationalized primary schools and the ebtedayee madrasas, and none of the non-formal primary schools.

Nearly 16% of urban and 12.1% of rural primary schools set up libraries for the students. School type-wise 18% of the government primary schools, 16.7% of the kindergartens, 13.3% of the newly nationalized primary schools, 5.3% of the non-formal primary schools and 2.7% of the ebtedayee madrasas had library.

**Quality of blackboards:** Quality of blackboards in the classrooms was assessed through writing on them and observing written works on blackboards from different corners of the classrooms. In 2014, over 86% of the blackboards were in very good condition meaning that writings on the boards were legible for all and from all corners. Half of 8.6% of the blackboards were in good condition, less than half of 2.5% of blackboards and the others were mostly damaged (Table 3.19). Mostly a similar proportion (about 87%) of good quality blackboards were observed in three types of schools, viz., government and newly nationalized primary schools and in the kindergartens. Non-formal schools were four percentage points behind them and the ebtedayee madrasas were far behind them (28 percentage points).

Table 3.18

*Percentage of schools having library and separate room for it by school type and residence, 2014*

School type/ residence	Indicators	
	Library	Separate room
<i>School type</i>		
Government	18.0	1.3
Newly nationalized	13.3	1.3
Kindergarten	16.7	3.6
Non-formal	5.3	0.0
Ebtedayee madrasa	2.7	1.3
<i>Residence</i>		
Rural	12.1	0.8
Urban	15.9	5.5
All	12.6	1.3

Source: Education Watch Educational Institution Survey, 2014

Table 3.19

*Percentage distribution of blackboards by conditions, school type and residence, 2014*

Blackboard condition	School type					Residence		All
	Government	Newly nationalized	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
Can write all parts of board brightly	87.1	86.9	86.9	83.0	59.0	85.3	90.0	86.1
Can write more than half of the boards brightly	8.3	8.1	8.7	9.1	20.9	8.9	7.4	8.6
Can write less than half of the boards brightly	2.6	2.2	1.5	4.8	6.5	2.9	0.6	2.5
Mostly damaged boards	0.8	2.0	2.7	1.8	5.8	1.6	1.9	1.7
No board	1.2	0.8	0.2	1.2	7.9	1.3	0.1	1.0

Source: Education Watch Educational Institution Survey, 2014

Provision for library facility in primary schools has expanded from 2% in 2008 to 12.6% in 2014. It increased faster in government primary schools, from 5.3% to 18% during this period (Figure 3.10). Overall quality of blackboards also improved over time. In 2008, 79.6% of the blackboards were in very good condition. Proportion of such a good quality blackboards has increased to 86.1% in 2014. Improvement was visible in government (80.2% to 87.1%) and newly nationalized (79.3% to 86.9%) primary schools and in the ebtedayee madrasas (44.1% to 59%); however, a decreasing trend was observed in the non-formal schools (90% to 83%).

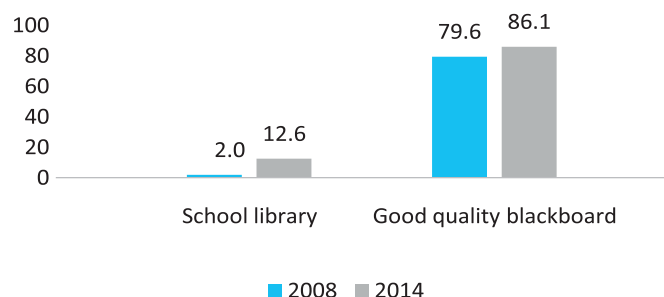
## G. National flag, national anthem and school dress

Hoisting of national flag in the school premises at the beginning of the school day and through the school hours and singing of national anthem before start of daily academic activities are two events signifying inculcation of patriotism among students. In 2014, over 95% of the urban and 90% of the rural schools hoisted national flag on the survey day (Table 3.20). National flag was seen hoisted on the survey day in all the government and newly nationalized primary schools, 94.9% of the kindergartens, 81.3% of the ebtedayee madrasas and 72.7% of the non-formal primary schools. Students sang national anthem on the survey day in 77% of the primary educational institutions. This was observed in 85.5% of urban and 76% of rural schools. The newly nationalized primary schools were at the top with 81.3% of them having this. They were followed by non-formal primary schools (78.7%), kindergartens (76.8%) and government primary schools (74.7%), respectively. The ebtedayee madrasas were at the bottom in this case with 42.7% of them having national anthem sang by students.

A statistically significant rise in hoisting of national flag and singing of national anthem have been noticed since 1998. Whereas, in 1998, 64.8% of the schools hoisted nation flag and national anthem was sang in 61.1% of the same; the

Figure 3.10

*Percentage of schools having library facility and percentage of fully good conditioned blackboards by year*



Sources: Education Watch Educational Institution Surveys, 2008, 2014

Table 3.20

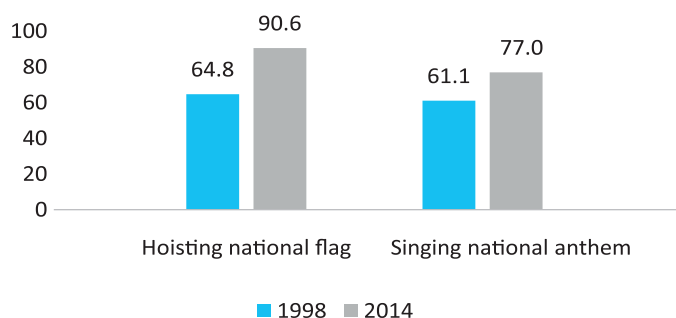
*Percentage of schools having provision of school dress, hoisted national flag and sang national anthem by school type and residence, 2014*

School type/ residence	Indicators		
	Provision of school dress	Hoisted national flag	Sang national anthem
<i>School type</i>			
Government	87.3	100.0	74.7
Newly nationalized	90.7	100.0	81.3
Kindergarten	94.9	94.9	76.8
Non-formal	26.7	72.7	78.7
Ebtedayee madrasa	26.7	81.3	42.7
<i>Residence</i>			
Rural	67.7	90.1	76.0
Urban	82.8	95.2	85.5
All	69.5	90.6	77.0

Source: Education Watch Educational Institution Survey, 2014

Figure 3.11

*Percentage of schools hoisting national flag and sang national anthem on the survey day by year*



Sources: Education Watch Educational Institution Surveys, 1998, 2014

figures increased to 90.6% and 77% respectively in 2014 (Figure 3.11). Improvement in both was noticed in all five types of schools. Note that proportion of hoisting national flag was higher than that of singing national anthem in each of the year. Again, increase in the former was 10 percentage points higher than that of the later.

*School dress:* Nearly 70% of the primary educational institutions had provision of school dress for the students in 2014 (Table 3.20). This was the case for 67.7% of rural and 82.8% of urban schools. School type-wise, such provision was in about 95% of the kindergartens, 90.7% of the newly nationalized primary schools, 87.3% of the government primary schools and over a quarter of each of the other two types of school.

## H. Sports and cultural activities

*Daily physical exercise:* Physical exercise before start of academic activities was done in 57.3% of the schools (Table 3.21). The urban schools were much ahead of the rural schools in students' physical exercise (70% vs. 55.6%;  $p < 0.001$ ). School type-wise variation was also observed in this. Nearly 70% of the kindergartens, 62.7% of the government primary schools, 58.7% of the newly nationalized primary schools, 47.3% of the non-formal primary schools and only a fifth of the ebtedayee madrasas had provision of daily physical exercise for the students ( $p < 0.001$ ).

*Cub-scout, annual sports and cultural competition:* Information on cub-scout activities, annual sports and cultural competition were also collected. Cub activities were available in 30.1% of the schools; 30.5% in rural and 27.5% in urban areas. This was in 62% of the government primary schools, 36.7% of the newly nationalized primary schools and 14.5% of the kindergartens. Fifty-nine percent of the schools organized annual sports in 2014 and 55.3% organized cultural competition. The urban schools were ahead of their rural counterparts in both. The government schools were ahead of others in organizing annual sports and cultural competition. Kindergartens and newly nationalized primary schools followed them.

Table 3.21

*Percentage of schools organizing various sports and cultural activities by school type and residence, 2014*

School type/ residence	Indicators			
	Physical exercise	Annual sports	Cultural competition	Cubing
<i>School type</i>				
Government	62.7	85.3	74.0	62.0
Newly nationalized	58.7	72.0	60.0	36.7
Kindergarten	69.6	70.1	73.9	14.5
Non-formal	47.3	16.7	24.7	0.0
Ebtedayee madrasa	20.0	38.7	38.7	0.0
<i>Residence</i>				
Rural	55.6	58.3	54.4	30.4
Urban	70.0	63.1	61.7	27.5
All	57.3	59.0	55.3	30.1

Source: Education Watch Educational Institution Survey, 2014

Cub activities in schools have decreased over time but annual sports have increased. In 2008, 48.6% of the primary schools had cub activities which was reduced to 30.1% in 2014. On the other hand, proportion of schools organized annual sports have increased from 53.4% in 2008 to 59% in 2014. The government has introduced two football competitions, one for boys and for girls, which is organised from union to national level. These have now become important sports events in primary education institutions.

## 1. Summary findings

Physical and educational facilities existing in the educational institutions are important *input* indicators for assessing *quality of education*. Some basic facilities – classrooms and teacher rooms, cleanliness, drinking water and toilet facilities, school library and blackboard conditions, and co-curricular activities are the items considered under this section.

- According to the 2014 survey, most of the government and newly nationalized primary schools and the ebtedayee madrasas were established on their own land where a structure was built. Majority of the kindergartens and most of the non-formal schools were established in leased houses. The buildings of 37% of the kindergartens were built on own land and another 12% on leased land. The government schools were ahead of the other types of schools in attaching ramps to the school building to permit access for disabled children. About 85% of the government and newly nationalized primary schools and about 80% of the ebtedayee madrasas had playground; the kindergartens and non-formal schools fell much behind in this respect. Kindergartens were far ahead of the others in having electricity connection in schools (84.7%) followed by the government primary schools (56%). A school garden was not a popular item in any of the school type.
- Rural primary educational institutions were ahead of their urban counterparts in having own land and structure, having ramp attached to structures, and playground. Urban schools surpassed the rural schools in having electricity connections and gardens. Although improvement over time was noticed in terms of having playground, attaching ramps with structures and electricity facility, many schools still lacked these facilities. Overall, 60.8% of the schools were established on own land, 63.5% had own structures, 17.8% of the structures had an access ramp, 41.8% of the schools had electricity, 57% had playground, and only 7.4% had a garden.
- Surroundings of 59% of the schools were found to be *calm and quiet*, 35% *slightly noisy* and 6% *noisy*. Rural schools were more likely to be located in a *quiet* place. The newly nationalized primary schools, mostly in rural areas, were ahead of the others in this respect, followed by the ebtedayee madrasas, government primary schools, non-formal primary schools and the kindergartens, respectively.
- Walls of two thirds of the schools and the floors of 58.8% of those were found acceptably clean (without dirt, dust or wastes). Non-formal schools were ahead of all others in keeping the floors clean. In keeping the walls clean, non-formal schools and kindergartens were in tie followed by government and newly nationalized schools. Urban schools were ahead of rural schools in keeping walls clean but were in a similar situation in keeping the floors clean. It is worth noting that further improvement after earlier progress was not observed during 2008–2014 in cleanliness of school houses.
- On average, the study schools had 3.7 classrooms each including the single roomed non-formal schools in 2014. Excluding the non-formal schools, the mean number of classrooms in government schools was 4.9, but for newly nationalised schools it stood at 3.4. One in six schools (15.6%) had an attached access ramp. Only 8.1% of schools followed the government's prescription regarding classroom area of 507 sq. ft. Kindergartens were ahead of others in the number of classrooms, but the government schools surpassed the others regarding other facilities indicators.
- Most of the classrooms of the government and newly nationalized primary schools and the kindergartens were constructed fully with brick or a combination of bricks and tin-coated iron sheets. This is the case for less than half of the classrooms in ebtedayee madrasas and over a quarter of those in non-formal schools. On average, less than half of the classrooms had electric lights and fans. Urban schools were

better constructed with more facilities than the rural schools. Improvement was noticed from 2008 to 2014 in terms of construction materials of classrooms and their overall condition, and in having electric lights and fans. Improvement was steady over the years in the government primary schools compared to the other types.

- Seating capacity in the classrooms also increased over time. In 1998, on average, 32 students could seat with ease in the classrooms which increased to 37 in 2008 and 39.6 in 2014. Sharp increase in student seating capacity in classrooms was observed in the government and newly nationalized primary schools and in the kindergartens. The other two types of schools were closely behind. In 2014, seating capacity was more than the number of registered students in the kindergartens and the non-formal schools, but less in other three types of schools.
- Drinking water and toilet facilities also improved over time. In the past, majority of the schools brought water from outside and kept it in jars for use, which has now changed to on-premise water sources. Less than half of the schools (47%) had the drinking water source on the premise in 1998. This increased to almost three quarters (73.7%) in 2014. Overall, 78.2% of the water sources were reported to be arsenic free and thus safe for drinking.
- Toilet facility for the students was available in two thirds of the primary schools in 1998 which increased to 70.4% in 2008 and 88.5% in 2014. Cleanliness of toilets also improved over time. In 1998, less than 10% of schools had clean toilets which increased to 62.1% in 2014. The majority of the schools (64.2%) had common toilets for boys and the girls. Proportionately more government schools had separate toilet facility for boys and girls (42%) followed jointly by the newly nationalized primary schools and the kindergartens. The urban schools were ahead of the rural schools in providing toilets and keeping them clean.
- Only 2% of the schools had library in 2008 which increased to 12.6% in 2014. However, only 1.3% of the schools had separate room for this; the others kept books in shelves in head teachers or assistant teachers' rooms. School type-wise, 18% of the government schools, 16.7% of the kindergartens and 13.3% of the newly nationalized schools had a library. Blackboards were in good condition in 86% of the classrooms meaning that writing was possible on each part of the blackboard. In 2008, 79.6% of the blackboards were in good condition which increased to 86% in 2014. Urban-rural gap was noticed in respect of both libraries and blackboards – urban schools surpassing the rural schools.
- National flag was hoisted in 90% of the schools at the beginning of the school day and national anthem was sung in 77% of the schools on the survey day in 2014, marking good progress since 2008. Most government and newly nationalized schools and kindergartens (around 95%) observed these rituals. Non-formal schools (72.7%) and etedayee madrasas (81.3%) were relatively behind in 2014. The urban schools paid greater attention to these practices than the rural schools.
- Daily physical exercise, annual sports, cultural competition and cub-scout activities are some of the co-curricular activities of the schools. In 2014, these occurred in different types of schools with substantial variations in these ranging from 30% to 59% of the schools. It can be seen that large proportions of schools did not provide for any of these activities.



## Chapter 4

# The Teachers of Primary Schools



In any school system, teachers are equally important as the students; they together create effective learning environment which is key to quality education. Teachers' roles are very important in this regard as they are in the driving seat. Quality education is not possible to achieve without committed teachers. Committed teachers can bring all concerned together, individuals and institutions, in the journey to quality education. It is thus important to understand them and their views, their education and training, length of service, teaching load, student-teacher ratio, and the factors that enable teachers to do their job well.

## A. Distribution of teachers

The primary education institutions varied in numbers of teachers employed. It ranged from 1 to 22 in our sample. The number of teachers varied from 3–13 in the government primary schools, 2–6 in the newly nationalized primary schools, and 1–9 in the ebtedayee madrasas. The two extreme cases in this regard are the kindergartens and the non-formal primary schools. The number of teachers varied from 4–22 in the kindergartens while the non-formal schools are single teacher schools. Again, three-quarters of the newly nationalized primary schools had four teachers each, similar proportion of government primary schools had 4–8 teachers, nearly 90% of the ebtedayee madrasas had 3–5 teachers and two-thirds of the kindergartens had 6–11 teachers.

*Mean number of teachers:* On average, the educational institutions under survey had 6.2 teachers in 2014; 5.5 teachers in the rural schools and 9.6 teachers in the urban schools (Table 4.1). Average number of teachers was highest in the kindergartens (10.3). The non-formal primary schools are single teacher schools by design. Among others, the government primary schools had 6.4 teachers, the newly nationalized primary schools had 3.8 teachers and the ebtedayee madrasas had 4.3 teachers. Urban schools had more teachers than the rural schools in three types, viz., government and newly nationalized primary schools and the kindergartens.

Mean number of teachers in the government primary schools, the dominant type, has increased over time – from 4.4 in 1998 to 5.2 in 2008 to 6.4 in 2014 (Table 4.2). Increase in the mean number of teachers was also noticed in the kindergartens – 9.6 in 1998 to 10.2 in 2014. No variation was observed in the newly nationalized and in the non-formal primary schools. On the other hand, it decreased over time in the ebtedayee madrasas – from 6.4 in 1998 to 4.7 in 2008 and to 4.3 in 2014. Overall, at the national level, number of teachers per school was below five in 1998, which increased to above five over next 10 years and to 6.2 by following six years. Improvement was noticed separately in both rural and urban schools.

*Female teachers:* The government has been emphasizing on recruiting more female teachers

**Table 4.1**  
*Mean number of teachers by school type and residence, 2014*

School type	Residence		Both
	Rural	Urban	
Government	6.1	8.9	6.4
Newly nationalized	3.8	4.0	3.8
Kindergarten	9.5	11.3	10.3
Non-formal	1.0	1.0	1.0
Ebtedayee mardasa	4.3	-	4.3
Total	5.5	9.6	6.2

Source: Education Watch Educational Institution Survey, 2014

**Table 4.2**  
*Trends in mean number of teachers by school type 1998-2014*

School type	Years		
	1998	2008	2014
Government	4.4	5.2	6.4
Newly nationalized	3.9	3.9	3.8
Kindergarten	9.6	-	10.3
Non-formal	1.0	1.0	1.0
Ebtedayee mardasa	6.4	4.7	4.3
Total	4.9	5.1	6.2

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014



especially in primary educational institutions since the first five-year plan (FFYP). In 2014, the females comprised 63.4% of all primary teaching staff (Table 4.3). Proportion of female teachers was significantly higher in the urban schools than in the rural schools (69.3% vs. 61.4%;  $p<0.001$ ). School type-wise variation was also observed. As usual, it was highest in the non-formal primary schools (90.7%) and lowest in the ebtedayee madrasas (20.5%). Among

others, 68% of the government school teachers, 62.6% of those of kindergartens and 49.4% of those of newly nationalized primary schools were females. Statistically significant urban-rural variation was observed in two types, viz., the government and the newly nationalized primary schools. In both, the urban schools had a higher proportion of female teachers than rural schools. Over 81% of the teachers of urban government schools and 64.4% of those of newly nationalized primary schools were females.

Proportion of female teachers increased over time in the primary educational institutions, as evidenced from the various *Education Watch* studies. Overall, females share in the primary teaching staff was 32% in 1998 which increased to 39.3% in 2008 and to 63.4% in 2014 (Table 4.4). The share almost doubled over a period of 16 years. Sharp increase in the percentage of female teachers was observed in the government and the newly nationalized primary schools and in the ebtedayee madrasas. It reduced in the kindergartens and an up-and-down situation was observed in the non-formal schools. Tremendous improvement was noticed in the government primary schools (25.2 percentage points). Improvement was 12.1 percentage points in the newly nationalized primary schools and 15.8 percentage points in the ebtedayee madrasas.

Gender composition of teachers at school-level were analysed. In 2014, 69.4% of the primary educational institutions had more female teachers than male teachers, 11.3% had equal and 19.3% had more male teachers than female teachers. Proportionately more female teachers was found in 67.7% of the rural and 83.3% of the urban schools. Percentage of schools with more female teachers increased over time; 40.1% in 1998 to 48.3% in 2008 and 69.4% in 2014 – almost 1.5 times over a period of 16 years (Table 4.5). Although increase of this was observed in all five types of schools,

Table 4.3

**Percentage of female teachers by school type and residence, 2014**

School type	Residence		Both	Level of significance
	Rural	Urban		
Government	65.7	81.5	68.0	$p<0.001$
Newly nationalized	48.6	64.4	49.4	$p<0.001$
Kindergarten	61.5	63.7	62.6	ns
Non-formal	90.1	96.0	90.7	ns
Ebtedayee madrasa	20.5	-	20.5	na
All	61.4	69.3	63.4	$p<0.001$
Level of significance	$p<0.001$	$p<0.001$	$p<0.001$	

Source: Education Watch Educational Institution Survey, 2014

Table 4.4

**Trends in percentage of female teachers by school type, 1998–2014**

School type	Years		
	1998	2008	2014
Government	42.8	58.1	68.0
Newly nationalized	37.3	37.2	49.4
Kindergarten	68.7	-	62.6
Non-formal	89.0	94.4	90.7
Ebtedayee mardasa	4.7	15.6	20.5
All	32.0	39.3	63.4

Source: Education Watch Educational Institution Survey, 1998, 2008, 2014

Table 4.5

**Trends in percentage of schools with more female teachers than males by school type, 1998–2014**

School type	Years		
	1998	2008	2014
Government	29.0	54.7	72.7
Newly nationalized	16.4	13.1	34.7
Kindergarten	72.0	-	75.2
Non-formal	89.4	94.0	92.7
Ebtedayee mardasa	0.0	1.9	6.7
All	40.1	48.3	69.4

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

it was huge in the government primary schools; from 29% in 1998 to 54.7% in 2008 and to 72.7% in 2014. Increase in the proportion of schools with more female teachers was recorded 43.7 percentage points over 16 years in the government schools which were far ahead of the aggregated national progress of 29.3 percentage points.

*Religious belief:* Percentage of non-Muslim teachers in the primary educational institutions was higher than that in the population. In 2014, 14.8% of the teachers was non-Muslims; 15.1% in urban schools and 14% in rural schools (Annex 4.2). No urban-rural variation was observed in any type of school. School type-wise variation was found at aggregate level as well as in rural areas. Overall, 16.4% of the teachers of the government primary schools, 12.9% of those of the newly nationalized primary schools, 13.5% of those of the kindergartens, 20.5% of those of the non-formal primary schools and only 0.6% of those of the ebtedayee madrasas were non-Muslims. Not much variation was observed in this in various school surveys by *Education Watch*.

## B. Educational qualifications

Earlier, the minimum educational qualification for teaching in primary schools was secondary school completion (i.e., SSC) which has increased to higher secondary education (i.e., HSC); however, it was relaxed for females. It has been made more stringent: it is now Bachelor degree for the males and higher secondary education completion for the females.

*Highest level of education:* Teachers' educational qualifications in terms of years of schooling were collected. In this analysis, dakhil, alim, fazil and kamil were considered as equivalent to Secondary School Certificate (SSC), Higher Secondary Certificate (HSC), Bachelor and Master respectively. The highest level of education attained by the primary school teachers varied substantially. In 2014, overall, 10.8% of the teachers completed secondary education, 32% completed higher secondary education, 37.7% had Bachelor degree and 19.5% had Master degree (Table 4.6). The urban school teachers were more educated than those of the rural schools and the males were ahead of the females. For instance, whereas, 69% of the urban teachers had at least a Bachelor degree, such a level of education was availed by 53.3% of the rural school teachers. Again, 67.1% of the male and 51.5% of the female teachers also availed at least a Bachelor degree.

School type-wise variation was also persisted (Table 4.7). The government school teachers had more educational qualification than others. Nearly 67% of them had at least a Bachelor degree. They were followed respectively by the kindergarten and the ebtedayee madrasa teachers. Majority of the teachers of non-formal schools either completed secondary or higher secondary education. The same was also applicable to the teachers of newly nationalized primary schools and those of the ebtedayee madrasas. A third of the teachers of newly nationalized primary schools and 41.4% of those of the non-formal schools had only 10 years of schooling.

Educational level of primary teachers increased over time. Earlier there were primary teachers who even had less than 10 years of schooling but today no such teachers are available in the schools. Proportion of

Table 4.6

*Percentage distribution of teachers by highest level of education, gender and residence, 2014*

Level of education	Gender		Residence		All
	Males	Females	Rural	Urban	
Secondary	10.8	10.8	12.5	5.6	10.8
Higher secondary	22.1	37.8	34.3	25.3	32.0
Bachelor	41.3	35.7	35.5	44.6	37.7
Master	25.8	15.8	17.8	24.4	19.5
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

teachers with only secondary school certificate has also come down over time. In 1998, 73.5% of the primary school teachers had higher secondary or more education which increased to 80% in 2008 and to 89.2% in 2014 (Figure 4.1). A similar trend was also observed when at least Bachelor degree holders or only Master degree holders were considered.

**Madrasa educated teachers:** Only 3% of the primary teachers received their highest education from the madrasas (Annex 4.2). They were 6.6% among the male teachers and less than 1% among the female teachers. No variation was observed by residence. Majority of them were concentrated in the ebtedayee madrasas; 58.2% of the ebtedayee madrasa teachers received their highest education from the madrasas. This was 3.5% in the newly nationalized primary schools, 3.4% in the kindergartens, 1.2% in the non-formal schools and 1% in the government primary schools. Less than 1% of the secondary completers, 1.5% of the higher secondary completers, 2.8% of the Bachelor degree holders and 6.9% of the Master degree holders received their final certificate from the madrasas.

**Stream of education:** Humanities was the major stream of education of the primary school teachers. The proportion of teachers who studied humanities significantly increased with the increase of their level of education. An opposite relationship was found between level of education and teachers with background in Science.

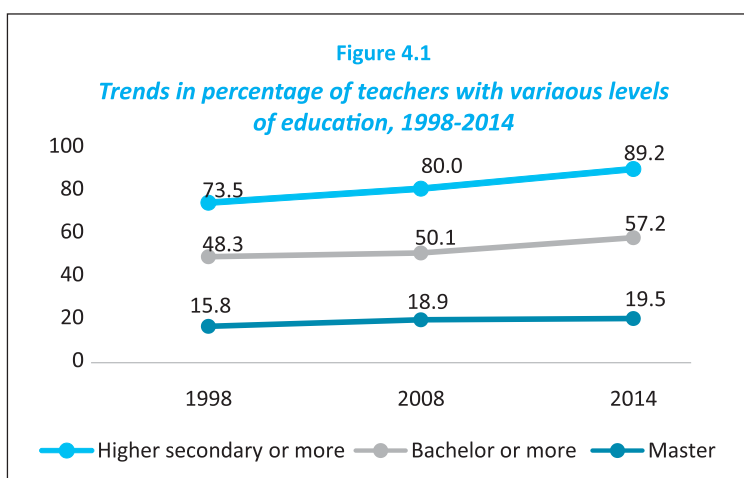
Among the teachers who completed at least higher secondary education, 49.5% of them studied Humanities at both SSC and HSC levels, 23% studied Science at both the levels and 8% studied Business at both the levels (Annex 4.3). From Science in SSC, about 12% moved to Humanities and 3.6% moved to Business Studies in HSC. Among the teachers who had at least a Bachelor degree, 49.2% studied Humanities, 12.6% studied Science and 5.3% studied Business at all three levels of education (Annex 4.5). About 12% of the teachers studied Science in SSC and then moved to Humanities for rest of education. Another 11.6% of the teachers studied Science at the first two levels and then moved to Humanities.

School type-wise analyses show that proportionately more teachers with Science background was found in the government primary schools followed from far behind by the newly nationalized primary schools and the kindergartens (Annexes 4.6 to 4.9). In secondary education completion examination, 46.8% of the

**Table 4.7**  
*Percentage distribution of teachers by highest level of education and school type, 2014*

Level of education	School type				
	Government	Newly nation.	Kinder-garten	Non-formal	Ebtedayee
Secondary	7.0	33.4	6.2	41.4	12.0
Higher secondary	26.0	40.5	37.3	50.6	39.6
Bachelor	40.9	21.9	40.7	6.8	28.2
Master	26.0	4.2	15.8	1.2	20.3
Total	100.0	100.0	100.0	100.0	100.0

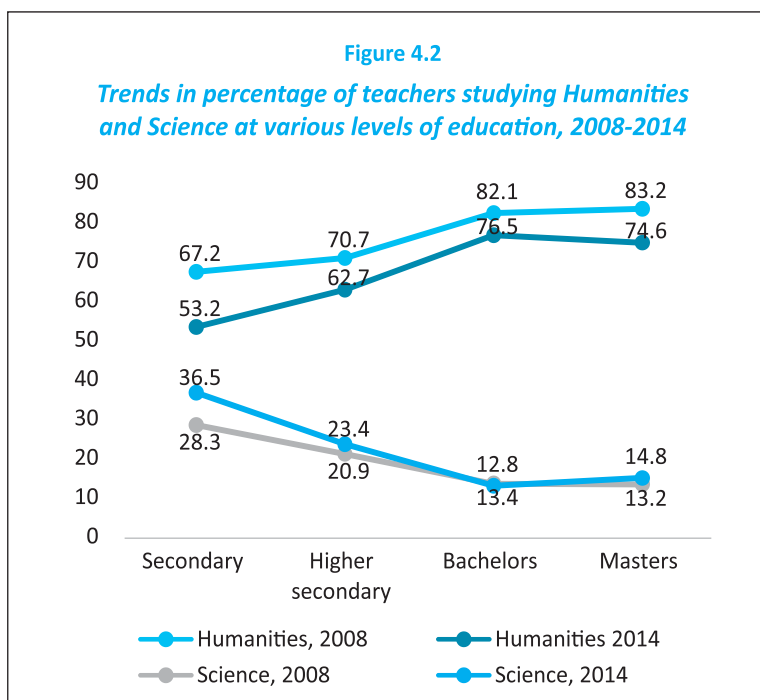
Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

teachers of government primary schools, 27.4% of those of the newly nationalized primary schools, 25.9% of those of the kindergartens, 19.9% of those of the non-formal primary schools and 7.9% of those of ebtedayee madrasas studied Science (Annex 4.6). Similar results were found when data were analysed for other levels of teachers' education (Annexes 4.7 to 4.9).

Comparing the data of 2014 with those of 2008, it can be said that proportion of teachers with Humanities background has been decreased over time and those with Science and Business Studies background have increased (Annexes 4.10 and 4.11). For instance, in 2008, 67.2% of the primary teachers studied Humanities for their secondary school completion examination (SSC or dakhil) which decreased to 53.2% in 2014. Again, 28.3% of 2008 teachers studied Science and 3% studied Business for SSC or dakhil examination which increased to 36.5% and 9% respectively in 2014. Figure 4.2 shows it for Humanities and Science for each levels of teachers' education.



Sources: Education Watch Educational Institution Surveys, 2008, 2014

**Performance in public examinations:** The public examination results in Bangladesh were previously graded into three divisions/classes but it gradually transitioned to grade point average (GPA). The primary teachers' performance was available in either of the systems; but for the majority it was in the previous system. Table 4.8 shows that those who got results in previous system, majority of them got second division but it was GPA 3.51–5 (equivalent to first division/class) in new system. Among the teachers, 39.8% got second division in SSC/dakhil examination, 43.4% got the same in HSC/alim examination, 36.8% in Bachelor/fazil and 15.8% in Master/kamil examinations. School type-wise analysis shows that performance of the government school teachers was the best in all public examinations.

**Table 4.8**  
*Percentage of teachers by level of performance in various public examinations, 2014*

Performance	Levels of education			
	Secondary	Higher secondary	Bachelor	Master
GPA <2.5	2.3	3.2	0.4	0.0
2.51 – 3.5	9.0	10.0	1.4	0.6
3.51 – 5.0	12.5	11.5	0.8	0.1
First division	29.9	10.9	1.7	1.9
Second division	39.8	43.4	36.8	15.8
Third division	6.5	10.0	15.8	1.0
Not done	-	11.0	43.1	80.6
Total	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

### C. Training of teachers

Teacher training varied from one sub-system to another. For mainstream education, 11 months long Certificate-in-Education (C-in-Ed) was the basic teacher training for long which has recently been replaced by the 18 months long Diploma in Education (DipEd). NGOs organize much shorter courses (2/3 weeks) for non-formal school teachers (followed by monthly refreshers). Ebtedayee madrasa and kindergarten teachers do not have any organized provision. As found in the survey, the teachers received following types of basic training: Certificate-in-Education (C-in-Ed), Bachelor of Education (B.Ed.), Master of Education (M.Ed.), Diploma in Education (DipEd), Bachelor in Physical Education (BPED) and NGO operated short training. A section of teachers received more than one training. In addition to above, subject-based short trainings are also offered to teachers.

*Basic training:* On average, 65.9% of the teachers had at least one basic training of which 54.4% received C-in-Ed. Although no gender difference was found in the proportion of teachers receiving at least one basic training, the rural teachers surpassed their urban counterparts with a large margin (Annex 4.12). About three quarters of the rural teachers and 41.1% of the urban teachers were trained. School type-wise variation was also prominent. The government schools were ahead of all others with 94.2% trained teachers. The newly nationalized schools followed them with 87.8% trained teachers. Proportion of such teacher was 59.6% in the non-formal schools. Much lower proportions of trained teachers were found in the kindergartens and the ebtedayee madrasas.

Over the period of 16 years (1998–2014), the proportion of trained teachers increased slightly – from 59.9% in 1998 to 61.3% in 2008 and to 65.9% in 2014 (Table 4.9). Such a slow average progress was due to almost no progress in the training of kindergarten and ebtedayee madrasa teachers. Moreover, proportion of trained teachers declined in non-formal schools. Although the proportion of trained teachers in government schools declined in 2008, it recovered soon. A large increase in trained teachers was observed in the newly nationalized schools during 1998–2008 with a small progress afterwards.

**Table 4.9**  
*Trends in percentage of trained teachers  
by school type, 1998–2014*

School type	Year		
	1998	2008	2014
Government	94.5	87.9	94.2
Newly nationalized	25.9	86.8	87.8
Kindergarten	15.8	-	14.9
Non-formal	87.5	83.1	59.6
Ebtedayee madrasa	7.4	9.2	6.9
All	59.9	61.3	65.9

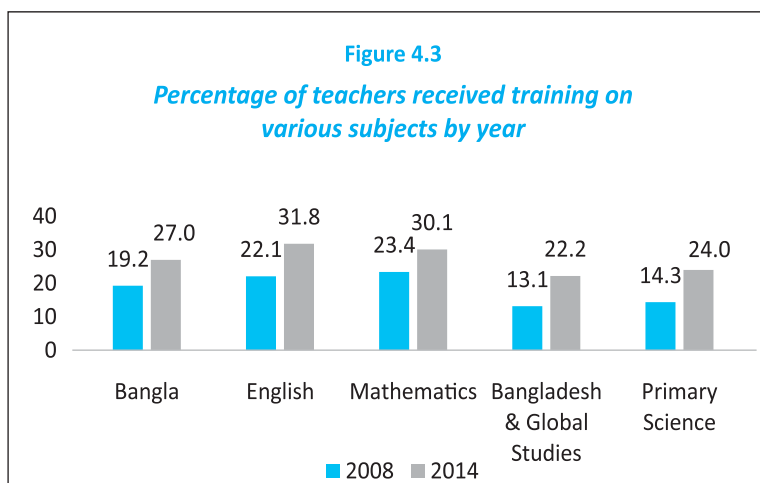
Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

*Subject-based training:* Subject-based training is arranged to equip teachers with skills in specific subjects. In 2014, 27% of the primary teachers had training on Bangla, 31.8% on English, 30.1% on Mathematics, 22.2% on Bangladesh & Global Studies, 24% on Primary Science, and 3.3% on Religion & Moral Education (Annex 4.13). In any of the subjects, less than a third of the teachers received training. Rural teachers were significantly ahead of the urban teachers in receiving training on each of the subjects. Again, gender difference favouring the males were also pronounced in each of the subjects. School type-wise analysis shows that the teachers of government and newly nationalized primary schools were much ahead of others in receiving subject-based training (Annex 4.14).

Proportion of teachers having training in various subjects increased over time (Figure 4.3). It shows that in no subjects' proportion of trained teachers increased more than 10 percentage points over the six years from 2008–2014. Increases in English and Primary Science were equal (9.7 percentage points) and these subjects were at the top in terms of progress. Increase was the least in Mathematics (6.7 percentage points).



In 2014, at the national level, 15.8% of the teachers' received one subject-based training, 18.8% received two, 12.8% received three, 5.4% received four, 2.3% received five, 2.2% received six and 42.6% received none (Annex 4.15). Overall, 57.3% of the teachers had at least one subject-based training. Sixty-one percent of the male and 55.5% of the female teachers had training at least in one subject ( $p < 0.001$ ). It was for 65.6% of rural and 33.5% of urban teachers ( $p < 0.001$ ). The newly nationalized primary schools were at the top in this regard followed by the government primary schools. Although less than a third of the non-formal school teachers had subject-based training it was below 10% among those of kindergartens and less than 2% among those of ebtedayee madrasas (Annex 4.16). Some more analyses on teacher training are provided in Annexes 4.17 and 4.18.



Sources: Education Watch Educational Institution Surveys, 2008, 2014

#### D. Teachers' attendance

On average, 89.3% of the primary school teachers were found to be present in school on the survey day in 2014; 90.2% among the males and 88.7% among the females (Table 4.10). This was 88.7% among the rural and 91.1% among the urban school teachers. School type-wise variation persisted. The non-formal schools were at the top in terms of teachers' attendance in school (98.8%). They were followed by the kindergartens (92.8%). It was lowest in the ebtedayee madrasas (80.4%). Teachers' attendance rate was 88.7% in the newly nationalized primary schools and 87.3% in the government primary schools.

Various reasons behind teachers' absenteeism were mentioned by heads of institutions (or programme organizers for non-formal schools). Of the primary teachers, 4.7% was on leave on the survey day, 1.4% was on official duty outside, 0.9% was on training and 3.7% was absent without notice (Annex 4.19). Unannounced absenteeism was highest in the ebtedayee madrasas (13.7%) (Annex 4.20). Absenteeism due to leave was about equal for the government primary schools and the ebtedayee madrasas (about 6%).

Comparing the situation between 2008 and 2014, it can be said that overall attendance

**Table 4.10**  
*Summary information regarding teachers' attendance, 2014*

Teacher groups	Attendance rate (%)	Percent attended on time	Mean late time (minutes)
<i>School type</i>			
Government	87.3	58.7	25
Newly nationalized	88.7	57.0	35
Kindergarten	92.8	79.5	48
Non-formal	98.8	88.4	21
Ebtedayee madrasa	80.4	72.4	23
<i>Gender</i>			
Males	90.2	66.2	37
Females	88.7	66.0	28
<i>Residence</i>			
Rural	88.7	62.9	28
Urban	91.1	74.9	47
All	89.3	66.1	31

Source: Education Watch Educational Institution Survey, 2014

rate has increased about by one percentage points over six years. Non-formal schools and the ebtedayee madrasas kept their positions unchanged – top and bottom, respectively. Absenteeism due to official work outside and un-announced absenteeism increased over time but absenteeism due to training and leave decreased.

Actual time of attendance was collected for those who were present in school on the survey day. It was then matched with the schools' official start time. The deviation between the schools' start time and the teachers' time of presence was categorized into four: before school started, on exact time, within 10 minutes of school's start and after 10 minutes of school's start. Irrespective of school type, over a half of the primary school teachers came to school before the school started, 15.7% came on the exact time, 11.3% came within 10 minutes of school starting time and 22.6% after 10 minutes of school's start (Annex 4.21). In other words, two-thirds of the teachers came to school on or before the school started and a third was late. This is indeed an improvement in teachers' timely attendance in school since 2008. Such analyses by gender, school location, and school type are provided in Annexes 4.21 and 4.22.

In 2014, mostly an equal proportion of male and female teachers came to school timely; however, a significant difference was observed by location (Table 4.10). Three-quarters of the urban teachers and 63% of those in rural areas came to school timely. Non-formal schools were at the top with 88.4% of the teachers coming to school timely followed by the kindergartens (79.5%) and the ebtedayee madrasas (72.4%). The government and the newly nationalized primary school teachers were much behind the above in coming to school timely. Less than 60% of the teachers of each type came to schools on or before start of the school. No gender variation was observed in any of the school type in late attendance rate of the teachers (Table 4.11). Rural teachers of the government and the newly nationalized primary schools were more likely to be late in school than their urban counterparts (Annex 4.23). However, an opposite scenario was observed in the case of kindergartens. No difference by location was seen in non-formal schools.

**Table 4.11**  
*Percentage of teachers present late in school by gender, residence and school type, 2014*

Gender/ Residence	School type				
	Governm ent	Newly national	Kinderg arten	Non- formal	Ebteda yee
<i>Gender</i>					
Males	40.9	44.4	20.3	0.0	25.5
Females	41.6	41.4	20.7	12.8	36.9
Significance	ns	ns	ns	na	ns
<i>Residence</i>					
Rural	43.5	43.4	18.2	11.5	27.7
Urban	29.0	35.1	22.9	12.0	-
Significance	p<0.001	p<0.05	p<0.05	ns	na

Source: Education Watch Educational Institution Survey, 2014

Similar to 2008, the late teachers, on average, came to school 31 minutes after the schools started; 37 minutes among the male teachers and 28 minutes among the female teachers (Table 4.10). The urban teachers came to schools 47 minutes late whereas the rural teachers came 28 minutes late. School type-wise, the kindergarten teachers were 48 minutes late, the newly nationalized primary school teachers were 35 minutes late, the government school teachers were 25 minutes late, the ebtedayee madrasa teachers were 23 minutes late and the non-formal school teachers were 21 minutes late.

An attempt was made to see whether there is any difference between the heads of the institutions and the other teachers. The heads of the institutions were more likely to be absent in school than the other teachers. Among the head teachers, 85.4% was present in school on the survey day, 2.2% was on leave, 5.3% was outside for official work, 1.9% was on training and 5.3% was absent un-announced. These figures

were 90, 5.1, 0.7, 0.8 and 3.4%, respectively for other teachers. On average, 68.4% of the head teachers and 65.7% of the other teachers came to school timely. The heads, on average, were 34 minutes late compared to 31 minutes for others.

Table 4.12 presents percentage of primary teachers who attended schools timely on the survey day in 2008 and 2014. School type-wise, the timely attendance rate increased among the teachers of all four types of schools which were considered in both the surveys. Ebtedayee madrasas were much ahead of others in improvement in teachers' attendance rate. Improvement in attendance rate was more among the female teachers than the males (15.9 percentage points vs. 4.6 percentage points) and among the rural school teachers than their urban counterparts (7.2 percentage points vs. 6.9 percentage points).

Table 4.12

**Percentage of teachers attended schools timely by teachers' groups and year**

Teachers' groups	Years		Improvement
	2008	2014	
<i>School type</i>			
Government	53.0	58.7	5.7
Newly nationalized	50.1	57.0	6.9
Kindergarten	-	79.5	-
Non-formal	87.3	88.4	1.1
Ebtedayee madrasa	54.9	72.4	17.5
<i>Gender</i>			
Males	61.6	66.2	4.6
Females	50.1	66.0	15.9
<i>Residence</i>			
Rural	55.8	63.0	7.2
Urban	68.1	75.0	6.9
All	57.5	66.1	8.6

Source: Education Watch Educational Institution Survey, 2008, 2014

## E. Service length

The average service length of the primary school teachers was 11.3 years; 11.6 years among the rural school teachers and 10.5 years among the urban school teachers (Table 4.13). It was much less among the females than the males (9.6 years vs. 14.3 years). Average length of service was highest among the teachers of the newly nationalized primary schools (19.1 years) and lowest among those of the non-formal primary schools (6.6 years). Among others, it was mostly equal among the teachers of the government primary schools and the ebtedayee madrasas (about 12 years) and 7.2 years among those of the kindergartens.

Service length of 30.8% of the primary teachers was below five years, it was 5-9 years for 23.9% of the teachers, 10-14 years for 15.9% of the teachers, 15-24 years for 17.1% of the teachers and over 25 years for 12.2% of the teachers. Similar distribution by gender, residence and school type are provided in Annexes 4.24 and 4.25.

Table 4.13

**Mean length of service of teachers by school type, gender and residence, 2014**

School type	Gender		Residence		All
	Males	Females	Rural	Urban	
Government	14.6	10.8	11.4	15.8	12.0
Newly nationalized	23.8	14.4	19.2	17.7	19.1
Kindergarten	8.9	6.1	6.5	7.8	7.2
Non-formal	5.2	6.7	6.5	7.2	6.6
Ebtedayee madrasa	12.8	8.4	11.9	12.3	11.9
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	14.3	9.6	11.6	10.5	11.3

Source: Education Watch Educational Institution Survey, 2014



## F. Student-teacher ratio

Student-teacher ratio is an indicator of the classroom situation and teachers' work burden, and thus, a favourable ratio is important for aiming to provide quality education. In the PSQL indicators DPE has decided, considering availability of teaching personnel, 46 students per teacher in government supported schools, as an interim standard. It is a very high figure compared to a generally accepted number of 30 students.

Table 4.14 shows that there were 43 students per teacher in 2014; 46 students in rural schools and 31 in urban schools. Highest student-teacher ratio was observed in the ebtedayee madrasas (60:1) followed respectively by the newly nationalized primary schools (59:1) and the government primary schools (52:1). The ratio was the least in the kindergartens (22:1). It was also favourable in the non-formal primary schools (29:1). At the aggregate level, the student-teacher ratio was 46 in 1998 which reached 39 in 2008 and again increased to 43 in 2014. A decrease in this was observed in the government schools, which served more than half of the primary students – 73 in 1998 to 49 in 2008 and 52 in 2014.

Percentage of educational institutions with a student-teacher ratio 40 or less was calculated and presented in Table 4.15. In 2014, 58.5% of the primary educational institutions had this ratio which was 56.2% among the rural schools and 77.4% among the urban schools. Most of the kindergartens and the non-formal schools and 70.7% of the ebtedayee madrasas maintained this ratio. Forty or less number of student per teacher was observed in 30.8% of the government and 22.7% of the newly nationalized primary schools. This table also shows that percentage of schools with student-teacher ratio of 40 or less increased over time – 47.3% in 1998 to 54.3% in 2008 and 58.5% in 2014. Increase was also evident in the government and newly nationalized primary schools and the non-formal schools. However, a decreasing trend, with a rising student-teacher ratio, was observed in the case of ebtedayee madrasas.

In 2014, a fifth of all primary schools had 25 or less number of students per teacher, 38.6% had 26–40 students and 41.4% had more than 40 students (Annex 4.26). These figures were 17.7%, 29.9% and 52.7%, respectively in 1998. The table also shows that proportion of schools with 26–40 students per teacher increased over time but proportion of schools

**Table 4.14**

*Trends in student-teacher ratio by school type and residence, 1998–2014*

School type/ residence	Year		
	1998	2008	2014
<i>School type</i>			
Government	73	49	52
Newly nationalized	55	50	59
Kindergarten	12	-	22
Non-formal	31	30	29
Ebtedayee madrasa	39	39	60
<i>Residence</i>			
Rural	59	40	46
Urban	30	36	31
All	46	39	43

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

**Table 4.15**

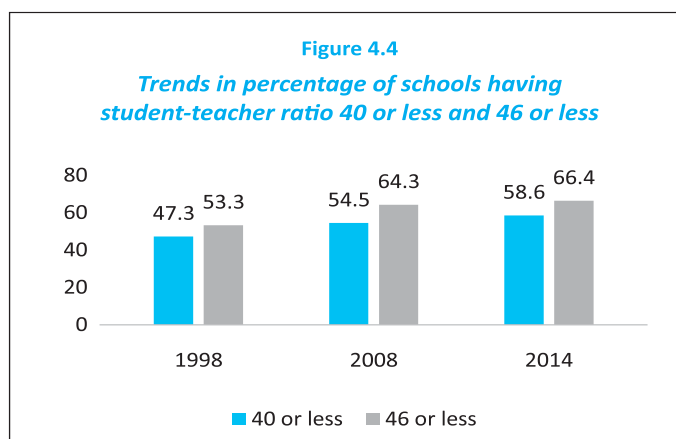
*Trends in percentage of school with student-teacher ratio 40 or less, 1998–2014*

School type/residence	Year		
	1998	2008	2014
<i>School type</i>			
Government	9.2	22.3	30.8
Newly nationalized	16.2	18.9	22.7
Kindergarten	98.0	-	95.6
Non-formal	94.7	97.0	97.4
Ebtedayee madrasa	89.4	74.3	70.7
<i>Residence</i>			
Rural	39.4	53.4	56.2
Urban	68.2	66.8	77.4
All	47.3	54.5	58.5

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

with more than 40 students per teacher decreased.

Following the DPEs PSQL indicator an attempt was made to estimate percentage of schools with student-teacher ratio 46 or below. A positive trend was observed- proportion of such schools increased over time. In 1998, 53% of the primary educational institutions had student-teacher ratio 46 or less which increased to 64.3% in 2008 and 66.4% in 2014 (Figure 4.4).



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

## G. Summary findings

Teachers and students together create effective learning environment which is key to quality of education. Teachers' qualification, skills and roles are thus important in assuring quality of education.

- The number of teachers substantially varied by school type as well as among the schools within each particular type except the non-formal schools with a single teacher. Excluding non-formal schools, 41.3% of the schools had four or less number of teachers, 11.7% had five teachers, 17.9% had 6–8 teachers and 29% had nine or more teachers. The overall average was 6.2 teachers; 5.5 in rural schools and 9.6 in urban schools.
- The mean number of teachers varied by school type – the highest in the kindergartens and the lowest in the newly nationalized primary schools. Number of teachers per school increased over time – from 4.9 teachers in 1998 to 6.2 teachers in 2014. Improvement was better noticed in the government system; however, it declined in the ebtedayee madrasas.
- The proportion of female teachers also increased over time. It was 32% in 1998, 39.3% in 2008 and 63.4% in 2014. Note that females share in teaching staff significantly varied by school type in each survey year. It was always higher in urban schools than in the rural schools.
- Proportion of primary educational institutions with more female teachers than males also varied substantially by school type and increased over time. In 1998, 40.1% of the schools had more female teachers than males which increased to 69.4% in 2014. Sharp increase was noticed in government schools – from 29% in 1998 to 72.7% in 2014. It was still below 10% in the ebtedayee madrasas. Non-formal schools are pre-dominantly taught by female teachers.
- Educational qualifications of the teachers also improved over time in all types of schools. More people with a Master or a Bachelor degree are now appointed as teachers than before. Overall, 48.3% of the teachers had at least a Bachelor degree in 1998 which increased to 50.1% in 2008 and 57.2% in 2014. The highest proportion of such teachers was found in the government schools (66.9%) followed by the kindergartens (56.5%) and newly nationalized schools (26.1%). This was only 8% in the non-formal schools. The majority of the ebtedayee madrasa teachers (58.2%) received their education from the madrasas.

- Humanities was the major discipline in which the primary school teachers had their education. However, comparing the data of 2008 and 2014, it was noticed that the proportion of teachers with Humanities background decreased somewhat and those with Science or Business studies increased.
- The proportion of trained teachers in primary education increased over time. Less than 60% of the teachers had basic training (C-in-Ed, BED, MED, DipEd, NGO's basic teacher training) in 1998, which increased to 61.3% in 2008 and 65.9% in 2014. Over 94% of the government school teachers, 87.8% of those of newly nationalized schools and under 60% of the non-formal school teachers were trained. Serious scarcity of trained teachers was observed in the kindergartens and the ebtedayee madrasas, which were 15% and 7%, respectively in these two types. The proportion of teachers with subject-based pedagogy training also increased during 2008-14.
- Teachers' attendance in schools improved during 2008–14. In 2008, 88.4% of the teachers attended in school on the survey day of which 57.5% attended timely, i.e., before start of official school hour. The rate of attendance was 89.3% and that for timely attendance was 66.1% in 2014. Non-formal schools were ahead of the others in both followed by the kindergartens. Attendance rate was the lowest among the teachers of ebtedayee madrasas and late attendance was higher among those of the government and newly nationalized primary schools. On average, the ones who came late arrived 31 minutes after the schools started.
- Student-teacher ratio showed variable progress over time but remains a major problem. It decreased from 46 in 1998 to 39 in 2008 and then increased to 43 in 2014. Reduction was noticed in the government system – from 73 in 1998 to 52 in 2014, though this would be still considered unacceptably high. Less than half of the schools (47.3%) had a student-teacher ratio of 40:1 in 1998 which decreased to 54.5% in 2008 and 58.5% in 2014.



## Chapter 5

# Management of Primary Institutions



Well managed educational institutions are more likely to be successful in providing quality education. In this the School Managing Committee (SMC) plays a vital role. However, the management system in primary institutions varies according to school type. Head teacher is another important person who is not only involved in day-to-day management of school, but he also plays a central role in the managing committee. The Directorate of Primary Education (2008) formulated rules and regulations regarding functioning of SMCs. This chapter examines composition, activities, participation of women, issues discussed in committee meetings and the profile of head teachers and SMC members.

### A. School managing committee

The school managing committee (SMC) is expected to have a huge potential role in school development and improving its performance. The members of the committees are comprised of the community people following some pre-determined criteria set by concerned authorities. Thus the committees actually bridge the schools with the communities. Formation of committees varies from one type of school to another. For instance, as per government instruction, the government and the newly nationalized primary schools and the ebtedayee madrasas should have 11-member committees. The non-formal schools, in general, have a seven-member committee and there is no specific regulation for the kindergartens. They follow their own rule. Although a number of Kindergarten Associations are active, but there is no overall regulatory mechanism that applies to these private sector institutions.

The 11-member committee for the primary school comprises of two teachers from the school including the head teacher as member-secretary, two local persons interested in education (*biddiyutshahi*), land donor for the school, a teacher from the nearest high school and five parents (males and females). The Ministry of Primary and Mass Education (MoPME) has a clear direction regarding formation of the committee including its roles and responsibilities. There is a provision of a four-member ad-hoc committee if a full committee cannot be formed. Mobilization of local resources for the school and monitoring and supervision of school activities are two major responsibilities of SMC.

Of the schools under survey in 2014, 91.5% had school managing committees; 91.9% in rural areas and 88.3% in urban areas (Table 5.1). A variation was observed in this by school type (Annex 5.1). Over 98% of the government and the newly nationalized primary schools and 96% of the ebtedayee madrasas had managing committees. The kindergartens were at the bottom with 77.5% of them having SMC. Although it was proportionately higher in rural areas for the government and the newly nationalized primary schools than their urban counterparts and an opposite relationship for the kindergartens and the non-formal primary schools but no statistical difference by residence was observed in any of the school type (Annex 5.1).

**Size of SMC:** The SMCs varied by size. Consolidating data of all five types it was found that majority of the SMCs had 11 members (55%), 13.7% had 8–10 members, 18.8% had seven members and 2.5% had

**Table 5.1**  
*Some basic information about school managing committees, 2014*

School type/ residence	% of schools having SMC	Mean size of SMC	% of females in SMC	% of non-Muslims
Government	98.7	10.9	40.7	11.4
Newly nationalized	98.7	10.9	34.6	10.1
Kindergarten	77.5	9.5	17.7	7.8
Non-formal	84.7	7.4	66.2	12.5
Ebtedayee madrasa	96.0	10.5	4.0	0.0
Rural schools	91.9	9.8	41.8	10.9
Urban schools	88.3	9.3	37.1	8.8
All	91.5	9.8	41.3	10.6

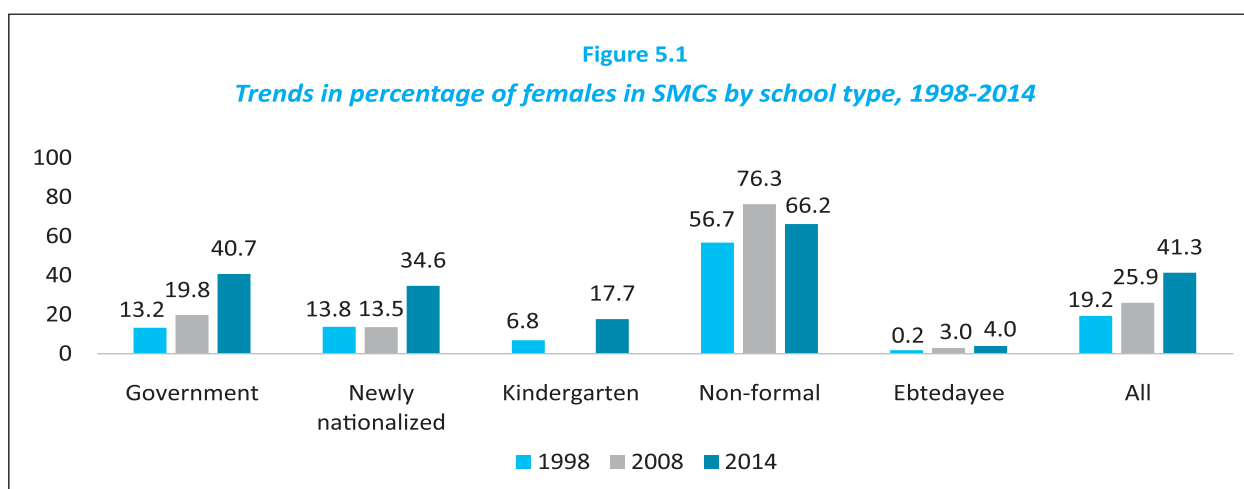
Source: Education Watch Educational Institution Survey, 2014

4–6 members. School type-wise, about 90% of the government and newly nationalized primary schools, 62.5% of the ebtedayee madrasas, and 40.2% of the kindergartens had 11-member committee. A 9–10-member committee was formed in 8.8% of the government and 1.4% of the newly nationalized primary schools. Over a quarter of the ebtedayee madrasas and 28% of the kindergartens also had similar sized committee. Over 70% of the non-formal schools had a 7-member committee, a fifth had a 9-member committee and 4.7% had an 11-member committee.

On average, the committees had 9.8 members; 9.8 members in rural schools and 9.3 members in urban schools (Table 5.1). School type-wise, the government and the newly nationalized primary schools had about 11 members each, the ebtedayee madrasas had 10.5 members, the kindergartens had 9.5 members and the non-formal schools had 7.4 members.

*Gender composition:* The females, on average, comprised of 41.3% of the managing committee members (Table 5.1). They were 41.8% in the committees of rural schools and 37.1% in the committees of urban schools ( $p < 0.001$ ). Females share in the SMCs significantly varied by school type ( $p < 0.001$ ) (Annex 5.2). It was highest in the non-formal schools and lowest in the ebtedayee madrasas. Two-thirds of the SMC members of the non-formal schools and only 4% in the ebtedayee madrasas were females. Share of the females was 40.7% in the government primary schools, 34.6% in the newly nationalized primary schools and 17.7% in the kindergartens. Proportionately more females were found in the SMCs of three types of urban schools than their respective rural counterparts (Annex 5.2). The types include government, newly nationalized and non-formal primary schools.

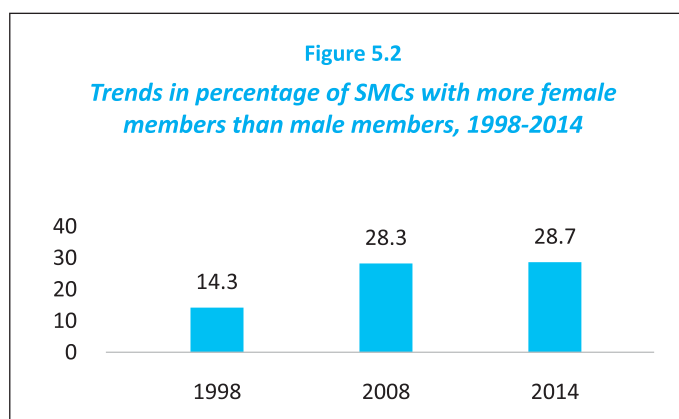
Percentage of females in SMC increased over time (Figure 5.1). It was below a fifth in 1998 which increased to 25.9% in 2008 and 41.3% in 2014. Much increase in females share in SMC was observed in the government and newly nationalized primary schools and in the kindergartens; however, very slow in the ebtedayee madrasas. In the former two types, increase of females share was more during 2008–2014 compared to 1998–2008. Kindergartens also made a good progress in this during the past 16 years. On the other hand, in the non-formal primary schools, it increased 20 percentage points from 1998 to 2008 but decreased 10 percentage points from 2008 to 2014. Proportion of SMCs with more females than males also increased over time – 14.6% in 1998 to 28.7% in 2014.



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

Majority of the SMCs comprised of more males than females. Overall, 69.2% of the schools SMCs had more males than females, 2.1 had equal number from both the genders and 28.7% had more females than males (Annex 5.3). More females than males were observed in 28.4% of rural and 30.6% of urban schools. Nearly 85% of the managing committees of the non-formal primary schools comprised of more females than males. Such a composition was observed in 10.9% of the government and 3.4% of the newly nationalized primary schools, 2.8% of the kindergartens and none of the ebtedayee madrasas. Proportion of schools with more females than males in the SMCs increased over time; however, major increase was observed during 1998–2008. Figure 5.2 shows that in 1998, 14.3% of the schools had more females than males in the SMCs, the figure increase to 28.3% in 2008 and 28.7% in 2014, a negligible progress during 2008–2014.

**Religious composition:** As expected, majority of the SMC members were Muslims (Table 5.1). On average, 10.6% of the SMC members was non-Muslims; 10.9% in the rural schools and 8.8% in the urban schools ( $p < 0.001$ ). The proportion was highest in the non-formal primary schools (12.5%), followed by the government (11.4%) and the newly nationalized (10.1%) primary schools and the kindergartens (7.8%), respectively. All SMC members of the ebtedayee madrasas were Muslims. The females share was 41% among the Muslim members and 43.8% among the non-Muslim members. Residence-wise significant difference in the proportion of non-Muslim members was observed only in the non-formal primary schools (Annex 5.4). Over 13% of the rural and 5% of the urban SMC members of non-formal schools were non-Muslims ( $p < 0.001$ ).



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

**Educational qualifications:** The SMC members varied in terms of their educational qualifications. Their educational qualifications varied by school type too. The heads of the institutions did not know the educational qualification of 1.2% of the SMC members. Of the rest, 1% had no schooling; 0.6% among the males and 1.5% among the females. It was highest in non-formal schools (3.2%).

Overall, 5.7% of the SMC members did not complete primary education, 19% had 5–7 years of schooling, 18.9% had 8–9 years of schooling, 17.8% had 10 years of schooling, 13.1% had 12 years of schooling, 16.4% had 14 years of schooling and 9.1% had 16 years of schooling (Figure 5.3). In other words, 94.3% of the SMC members completed primary education, three quarters completed junior secondary education, 56.4% completed secondary education, 38.6% completed higher secondary education, and over a quarter received Bachelor degree and 9.1% received Master degree (Annex 5.5). SMC members with less than five years of schooling was 3.2% among the males and 9.2% among the females, 5.8% in the rural schools and 4.4% in the urban schools. Highest proportion of such members was found in the non-formal schools (17.4%). Nearly 34% of the SMC members of the same type of school had 5–7 years of schooling. SMC members with a Master degree was 7.5% in the rural schools and 22.7% in the urban schools, 11.8% among the males and 5.2% among the females. Master degree holders comprised of 28.5% of the SMC members of the kindergartens, 10.1% of those of the government schools, 5.1% of those of the newly nationalized schools, and only 1.7% of those of the non-formal primary schools (Annex 5.6).

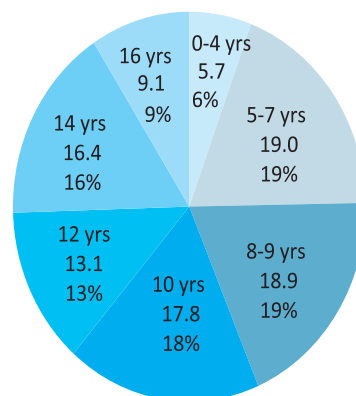


On average, the SMC members had 9.8 years of schooling; 11.7 years among the members of urban school SMCs and 9.6 years among the members of rural school SMCs, and 10.5 years among male members and 8.8 years among female members. School type-wise, mean years of schooling of the SMC members was 13.1 for kindergartens, 10.5 for government schools, 10.1 for ebtedayee madrasas, 9.6 for newly nationalized schools and 7.2 for the non-formal schools. Mean years of schooling of the SMC members increased from nine years in 2008 to 9.8 years in 2014. In rural schools, it increased from 8.9 years in 2008 to 9.6 years in 2014, and in urban schools, it increased from 9.9 years in 2008 to 11.7 years in 2014. Increase was observed among the males as well as the females. Figure 5.4 shows such increase in four types of schools which were common in each year. Highest increase was noticed in the non-formal primary schools (two years).

**Training:** Only 7.1% of the SMC members had training; 8.8% among the males and 4.6% among the females. Seven percent of the members of rural and 7.9% of those of urban schools had training. School type-wise, this was 8.5% for government, 10.6% for newly nationalized, 6.7% for kindergarten, 2% for ebtedayee madrasa and 1% for non-formal schools. Trends analysis on SMC members training was not possible due to unavailability of data in earlier surveys.

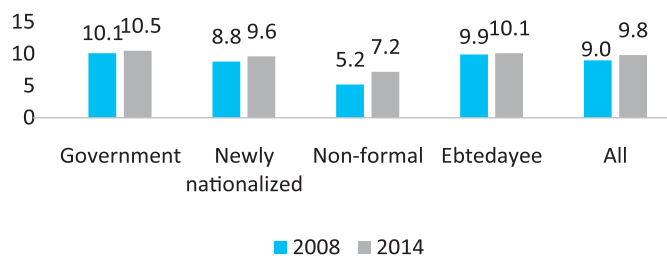
**Membership type:** A total of eight types of SMC members were found. They include teachers' representatives, guardians' representatives, founders' representatives, land donors or their representatives, persons interested in education (*bidduyitshahi*), members selected by higher authority, elected members and ex-officio members. Annex 5.7 shows that majority of them were representatives of the guardians of the students (37.6%) followed by persons interested in education (14.1%), teachers' representatives (14.1%), and ex-officio members (11.2%). All these four type comprised of 77.7% of the total members of SMCs. Representative of the guardians was the highest in the SMCs of the non-formal primary schools (52.2%), it was below 35% in other types. Proportion of land donors or their representatives was highest in the ebtedayee madrasas (14.2%).

Figure 5.3  
Percentage distribution of SMC members by level of education, 2014



Source: Education Watch Educational Institution Survey, 2014

Figure 5.4  
Trends in mean years of schooling of SMC members by school type, 2008-2014

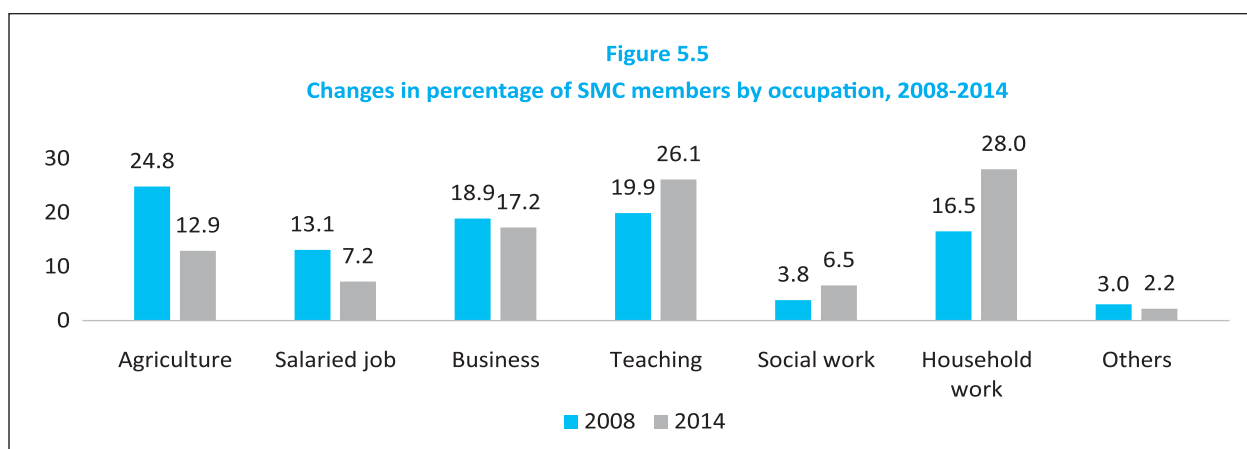


Sources: Education Watch Educational Institution Surveys, 2008, 2014

Females were not equally represented in each category (Annex 5.8). Proportion of females was highest among the representatives of the guardians (53.5%) and lowest among the land donors (8.9%). Over 40% of the representatives of the teachers and the persons interested in education (*biddiyuitshahi*) and a third of the ex-officio members were females. Proportion of females was below 30% in other categories. Urban-rural difference for each category is also provided in this Annex.

In terms of educational qualification, representatives of the teachers were ahead of all other categories followed by ex-officio members (Annex 5.9). Teachers' representatives, on average, had 13.3 years of schooling and ex-officio members had 11.9 years of schooling. Mean years of schooling of the founding members was 10.7 years and it was 10.2 years for the members selected by higher authorities. Educational qualification was the least among the representatives of the guardians (8 years).

**Occupation:** The main occupations of the SMC members were collected. Eight categories of occupations were found (Annex 5.10). Overall, majority of them were living on household work (28%) followed by teaching (26.1%), business (17.2%) and agriculture (12.9%). These four occupations comprised of over 84% of the SMC members. Occupation of two-thirds of the female members was household work and a quarter was teachers. On the other hand, business, teaching and agriculture were the major occupations of the male members. Difference between the rural and urban schools is also noticeable. Proportionately more SMC members of rural schools lived on agriculture and household work than their counterparts in urban schools. Business or salaried job were the two occupations where the urban SMC members surpassed their rural counterparts. Difference in occupation by school type is provided in Annex 5.11. Occupation of half of the SMC members of non-formal schools was household work. Comparing 2008 and 2014 it can be said that proportion of SMC members who lived on agriculture, salaried job or business reduced over time. On the other hand, proportion of teachers, social workers and those involved in household work increased from 2008 to 2014 (Figure 5.5).



Sources: Education Watch Educational Institution Surveys, 2008, 2014

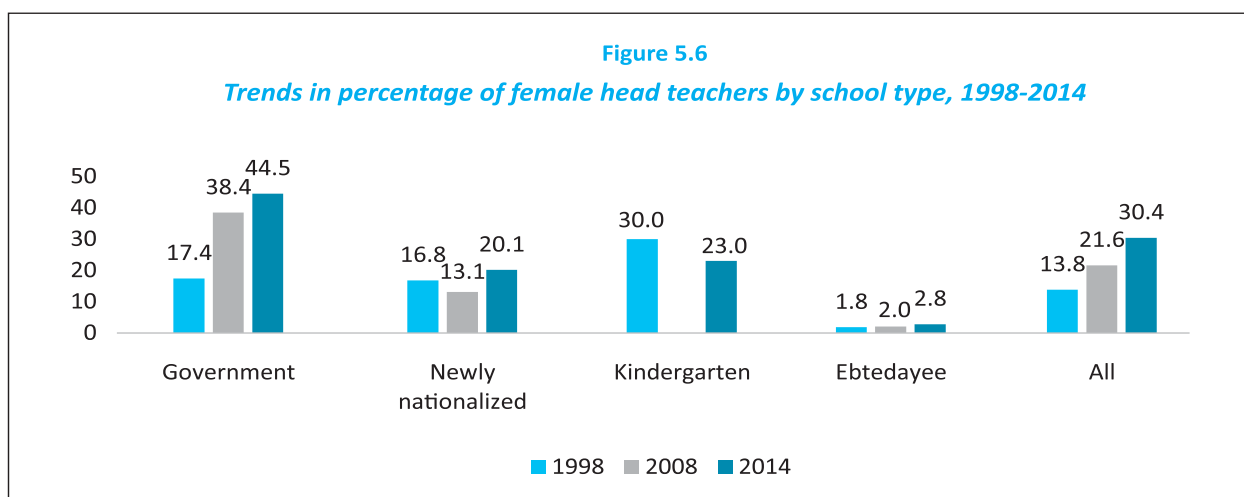
## B. The heads of institutions

The heads of the educational institutions, i.e., the head teachers are very important persons in any formal school setting. They provide leadership in operation of institutions through distributing activities among other teachers and supervising their work. It includes teaching activities as well as co-curricular and various other activities. Day to day management of schools and keeping communication with the school managing committees and *upazila* education authorities are the duties of the head teachers. They are the member-

secretary of the SMCs. As the non-formal schools are single-teacher schools, they were not included in this analysis.

**Basic information:** On average, 3.2% of the four types of educational institutions did not have any head teacher; 3.4% among rural schools and 1.4% among urban schools (Annex 5.12). School type-wise, 2.7% of the government primary schools, 4% of each of the newly nationalized primary schools and ebtedayee madrasas, and 2.2% of the kindergartens had no head teacher. Unlikely to the total teaching staff majority of the posts of head teachers were occupied by the males. Females were 30.4% of the heads of the institutions. Heads of 31% of the rural and 34.4% of the urban educational institutions were females. Proportion of female heads was highest in the government primary schools (44.5%) followed by the kindergartens (23%), and newly nationalized primary schools (20.1%). It was only 2.8% in the ebtedayee madrasas. Of the heads of the institutions, 2.2% belonged to the small ethnic groups and 11.5% were non-Muslims. Both the proportions were highest in the government primary schools (Annex 5.12).

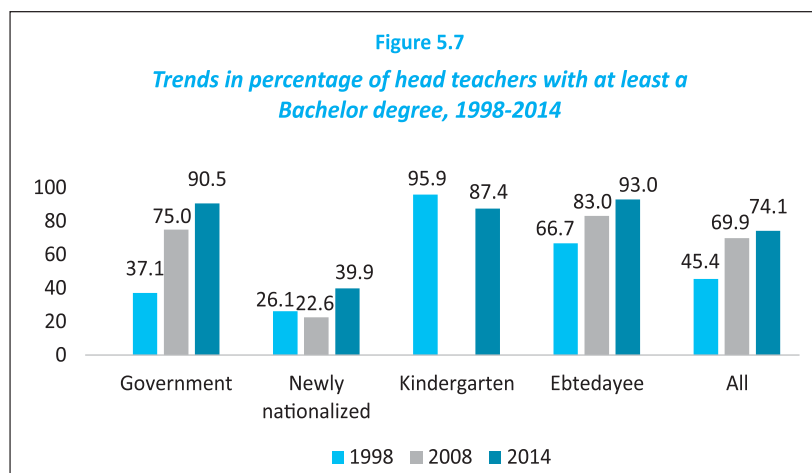
Females share among the heads of the educational institutions increased over time – 13.8% in 1998 to 21.6% in 2008 and 30.4% in 2014 (Figure 5.6). Compared to other types of institutions it increased sharply in the government primary schools. For instance, in the government schools, 17.4% of the head teachers were females which increased to 38.4% in 2008 and 44.5% in 2014. Increase in the percentage of female heads was very slow in the newly nationalized primary schools and the ebtedayee madrasas. It was rather decreased in the kindergartens.



Source: Education Watch Educational Institution Surveys, 1998, 2008, 2014

**Educational qualifications:** Highest educational qualification of 30.9% of the head teachers was Master degree, 43.2% bachelor degree, 18.4% completed higher secondary education and 7.5% completed secondary education (Annex 5.13). None of the heads of the kindergartens or the ebtedayee madrasas had less than 12 years of education. However, a fifth of the heads of the newly nationalized primary schools and 2.7% of the government primary schools had only 10 years of schooling. About three quarters of the head teachers were Bachelor and/or Master degree holders. Over 91% of the heads of urban schools and 71.7% of those of the rural school had this qualification. School type-wise, 90.5% of the heads of government primary schools, and 87.4% of those of kindergartens had a Bachelor and/or a Master degree. This was so for , 39.9% in newly nationalized primary schools and 93% of those in ebtedayee madrasas. The latter mostly had their education from fazil or kamil madrasas.

Figure 5.7 presents an increasing trend in the proportion of head teachers with at least a Bachelor degree. In 1998, 45.4% of the head teachers had at least a bachelor degree which increased to 69.9% in 2008 and 74.1% in 2014. Although a clear and steady increase was observed in the government schools and in the ebteyayee madrasas it was very slow in the newly nationalized primary schools and declining in the kindergartens.

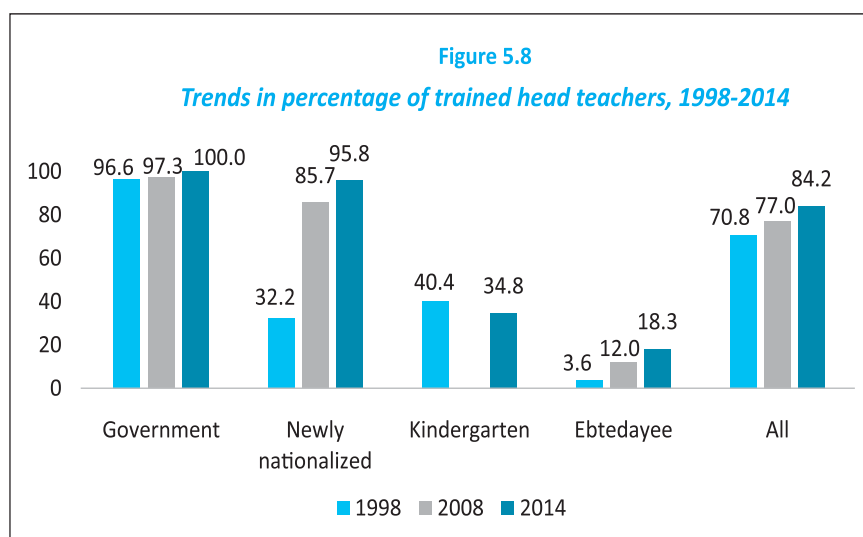


Source: Education Watch Educational Institution Surveys, 1998, 2008, 2014

Majority of the head teachers studied Humanities during their academic life. Similar as the other teaching staff, proportion of head teachers who studied Humanities increased with the increase of level of education and proportion of heads who studied Science decreased (Annex 5.14). Among the head teachers, 54.6% studied Humanities at secondary level, 60% at higher secondary level, 76% at Bachelor's level and 82.1% at Master's level. On the other hand, 35.7% of them studied Science at secondary level, 26.4% at higher secondary level, 11.4% at Bachelor's level and 7.4% at Master's level.

**Training:** On average, 84.2% of the head teachers had basic teacher training which may be Certificate in Education (C-in-Ed), Bachelor of Education (BEd) or Master of Education (MEd); 82.2% among the males and 88.5% among the females. Whereas, 87.8% of the head teachers of the rural schools were trained it was 60.8% in the urban schools. All the head teachers of the government primary schools, 95.8% of those of the newly nationalized primary schools, 34.8% of those of the kindergartens and 18.3% of those of the ebteyayee madrasas were trained.

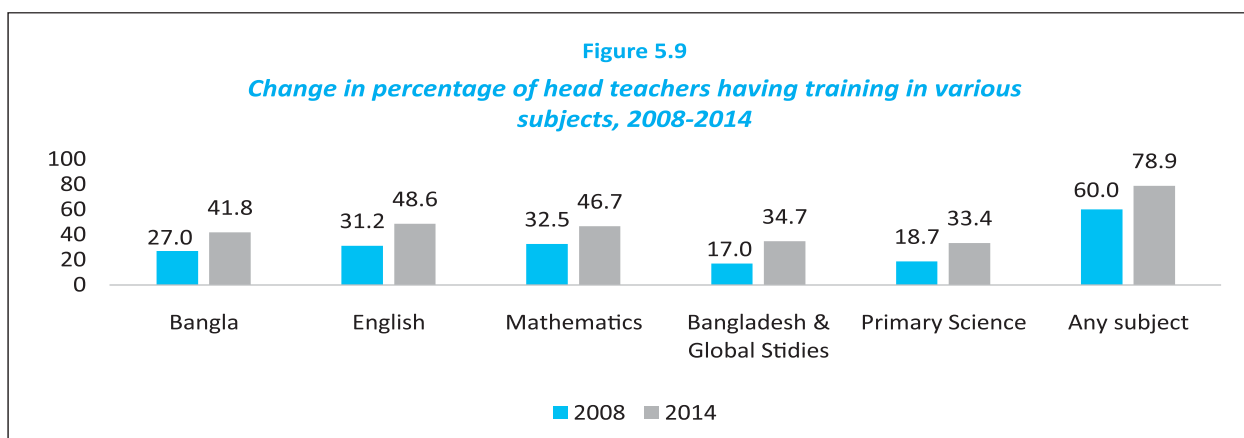
Figure 5.8 presents increasing trend in percentage of trained head teachers. In 1998, 70.8% of the school heads had basic teacher training which increased to 77% in 2008 and 84.2% in 2014. School type-wise, increasing trend was observed in three types of schools, viz., government primary schools, newly nationalized primary schools and ebteyayee madrasas but not in the kindergartens.



Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

Compared to total teaching staff, head teachers received more subject-based training (78.9%). Over a fifth of the head teachers (21.1%) did not receive any such training. Of the head teachers, 13.6% got training on one subject, 27.7% got in two subjects, 20.3% in three subjects, 9.8% in four subjects, 3.3% in five subjects and 4.1% in all six subjects. No gender variation was observed in receiving at least one subject-based training. However, although 83% of the heads in rural schools received at least one training about half of the heads of urban schools had no such training. Nearly 96% of the heads of the government primary schools and the newly nationalized primary schools had at least one subject-based training. On the other hand, 80.7% of the heads of the kindergartens and 97.2% of those of the ebtedayee madrasas had none.

Subject-wise, 48.6% of the head teachers got training on English, 46.7% on Mathematics, 41.8% on Bangla, 34.7% on Bangladesh & Global Studies, 33.4% on Primary Science, and 5% on Religion & Moral Education (Annex 5.15). No gender difference was observed in receiving subject-based training by the head teachers. However, significantly more heads of the rural schools received training in five subjects than their urban counterparts. The subjects include Bangla, English, Mathematics, Bangladesh & Global Studies and Primary Science. Figure 5.9 shows an increasing trend in subject-based training of the head teachers of primary educational institutions.



Sources: Education Watch Educational Institution Surveys, 2008, 2014

### C. Managing committee meetings

The school managing committees, on average, met 6.9 times in 2014 (Table 5.2). Mean number of meetings was seven in rural schools and 6.2 in urban schools. It was the highest in the government primary schools and the lowest in the kindergartens – 7.6 and 4.9, respectively. SMCs of the newly nationalized and non-formal primary schools met seven times each and those of the ebtedayee madrasas met 4.9 times in 2014.

Table 5.2 shows that written meeting minutes was found in majority of the schools (96.8%). This was slightly higher in the rural schools than the urban schools (97% vs. 95.1%). Kindergartens were much behind the other types in keeping records of SMC meetings. Only 87.3% of them had such a practice.

Information on attendance of the SMC members in the last meeting prior to school survey was collected. On average, 84.5% of the SMC members were present in that meeting (Table 5.2). The attendance rate was mostly equal in rural and urban schools. However, significantly higher proportion of females attended the meeting than the male members (88.3% vs. 81.8%;  $p < 0.001$ ). Non-formal schools were at the top in this with 90.8% of the members attended the meeting and the ebtedayee madrasas at the bottom with

80% attendance rate. Among others, the attendance rate was 84.9% for newly nationalized primary schools, 83.6% for the kindergartens and 81.3% for the government schools.

Attendance rate of the Member-Secretaries of the committees was 97%, it was 90% among the Presidents, 87.3% among the Vice Presidents and 81.7% among the Members. Again, the land donors, selected members (by higher authorities) and the ex-officio members were more likely to be absent from meeting than others. Variation in attendance rate was also observed in terms of occupation of the members. Social workers and those engaged in agriculture or salaried job were less likely to attend in the meeting than others. Figure 5.10 shows that the mean number of SMC meetings and practice of writing meeting minutes decreased during the past six years (2008–2014) but attendance rate of the members in the meeting

SMC meeting minutes were scanned to understand the issues discussed in the meetings. The head teachers were asked to mention three major issues among those discussed in the last meeting prior to school survey. Most frequently discussed issues were: students' absenteeism (42.3%), schools physical facilities (41.9%), issues related to primary education completion examination (PECE) and related model test (36.8%), quality of education (24.9%), in-school examination (14.4%), and *upabritti* (14.4%) (Table 5.3). The other discussed issues include public awareness raising, various programmes organized by schools, student admission, teacher appointment, textbook distribution and communication with parents (Annex 5.16). Some issues got more attention to the SMCs of the rural schools and some to those of urban schools (Annex 5.16). Students' absenteeism, physical facility, PECE and model test, *upabritti*, and public awareness raising got more attention to the SMCs of the rural schools. On the other hand, quality of education, and admission of students received more attention of the SMCs of the urban schools.

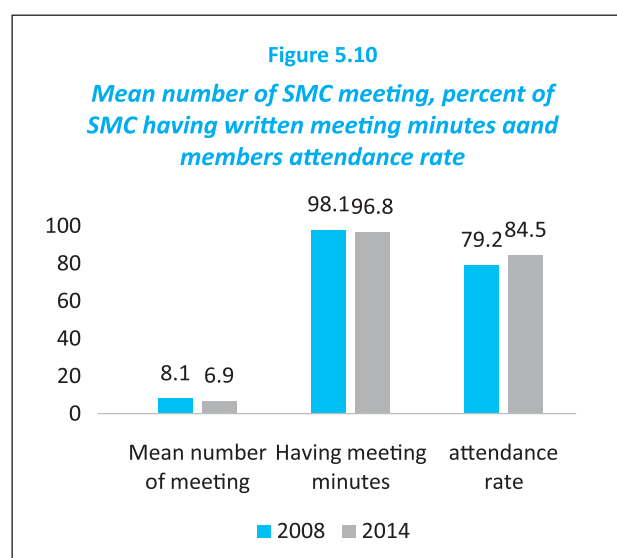
Issues discussed in the SMC meetings varied by school type too (Annex 5.17). Kindergartens gave more emphasis on teacher appointment and students' admission compared to other types of schools. Non-formal schools gave more attention to awareness raising activities and communication with parents than others. Ebtedayee madrasas were concerned, more than others, about organizing various programmes in school.

Table 5.2

*Some basic information about school managing committee meetings, 2014*

School type/ residence	Average number of meetings in 2014	Having written meeting minutes (%)	Attendance rate in last meeting (%)
Government	7.6	98.6	81.3
Newly nationalized	7.0	98.6	84.9
Kindergarten	4.6	87.3	83.6
Non-formal	6.9	96.7	90.8
Ebtedayee madrasa	4.9	95.8	80.0
Rural schools	7.0	97.0	84.5
Urban schools	6.2	95.1	84.1
All	6.9	96.8	84.5

Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 2008, 2014



Table 5.3

*Percentage of schools by major issues discussed in SMC meetings, school type and residence, 2014*

Issues discussed	School type					Residence		All
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
Students' absenteeism	41.3	35.9	16.3	58.7	33.3	43.4	33.4	42.3
Quality of education	11.4	13.5	58.9	40.0	24.6	23.2	38.3	24.9
Physical facility related	53.9	49.1	48.1	15.8	71.0	42.6	35.5	41.9
In school examination	19.6	15.5	9.0	9.8	0.0	14.6	13.1	14.4
PECE and model test	43.9	45.8	27.0	24.5	21.7	37.4	31.6	36.8
<i>Upabritti</i>	21.7	23.7	1.3	2.0	11.6	15.9	2.0	14.4
Public awareness raising	4.1	2.9	0.0	29.2	1.4	10.7	7.7	10.4

Multiple responses counted

Source: Education Watch Educational Institution Survey, 2014

## D. Summary findings

Recognizing the potential role of School Managing Committees (SMC) in overall development of schools and improving quality of education, this section presents information on the SMCs. The characteristics of head teachers are also analysed.

- Most of the government and newly nationalized primary schools and the ebtedayee madrasas had SMCs in 2014, but 15% of the non-formal schools and 22.5% of the kindergartens had no such committee. Overall, 91.5% of the schools had SMCs. The size of SMCs varied by school type because of regulatory decisions. For instance, an 11-member committee is stipulated for government and newly nationalized schools and ebtedayee madrasas; 7-member in non-formal schools; and no such rule applied for kindergartens.
- Females constituted 41.3% of the SMC members in 2014 which substantially varied by school type and school location. The highest proportion of females was observed in the SMCs of non-formal schools (66.2%) and lowest in those of the ebtedayee madrasas (4%). Female membership in SMCs was higher in rural areas than in urban areas (41.8% vs. 37.1%). Share of females in SMCs and the proportion of SMCs with more female members than males increased over time. In 1998, less than a fifth of the SMC members were females which increased to 41.3% in 2014. Again, in 1998, SMCs of 14.3% of the schools had more females than males which increased to 28.7% in 2014. In both cases, the improvement was more than others in the government schools.
- Educational qualifications of the SMC members also varied substantially by school type, but qualifications increased over time. On average, they had nine years of schooling in 2008 which increased to 9.8 years in 2014. A very few of them had some sort of training. People with occupations in farming, salaried job and business were less represented in the SMCs in 2014 than those in 2008. On the other hand, representation of teachers, social workers and people involved in household work increased during this period.
- Head teachers play a significant role in managing schools. Most of the educational institutions had head teachers in 2014 (96.8%). Of the heads, 30.4% were females; 31% in rural schools and 34.4% in urban schools. It was the highest in the government schools (44.5%) and the lowest in the madrasas (2.8%).

The proportion of female heads of institutions increased over time – from 13.8% in 1998 to 21.6% in 2008 and 30.4% in 2014. Major increase was noticed in the government schools.

- Educational qualification of the head teachers increased over time. In 1998, 45.4% of the head teachers had at least a Bachelors degree which increased to 69.9% in 2008 and 74.1% in 2014. In 2014, more than 90% of the heads of the government primary schools and 39.9% of those of the newly nationalized primary schools had at least a Bachelors degree. This was the case for 87.4% of the heads of the kindergartens.
- Over 84% of the head teachers was trained in 2014; 82.2% among the males and 88.5% among the females. All the heads of government primary schools, 95.8% of those of the newly nationalized schools, 34.8% of those of the kindergartens and 18.3% of those of the ebtedayee madrasas were trained. Proportion of trained head teachers also increased over time – from 70.8% in 1998 to 77% in 2008 and 84.2% in 2014. The training of head teachers was on pedagogy in general or teaching certain subjects – not necessarily on the management and leadership functions of the head teacher.
- The SMCs, on average, met 6.9 times in 2014, 96.8% of them had written minutes, and members' attendance in meeting was counted to be 84.5%. Kindergartens and ebtedayee madrasas were less regular in holding the meetings. Attendance rate was highest in non-formal schools (90.8%) and lowest in the ebtedayee madrasas (80%). The mean number of meetings held decreased from 2008 to 2014, but the practice of writing meeting minutes and attendance of members increased.
- Frequently discussed issues in SMC meetings were students' absenteeism, improvement of physical facilities, primary education completion examination (PECE) and model tests, quality of education, etc. Not much difference was observed between 2008 and 2014 in terms of issues discussed in the SMC meetings. There appears to be no evidence of change in the scope of authority and decision-making at school level regarding management of school.



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## Chapter 6

# Access to Primary Education



Access to primary education is an important consideration for Education for All (EFA) as well as for assessing quality of any education system. Two popular indicators in this regard are gross enrolment ratio (GER) and net enrolment rate (NER). These were calculated for children representing various socioeconomic backgrounds and their families. In addition, estimates for two other indicators ‘real net enrolment rate’ (RNER) and ‘adjusted net enrolment ratio’ (ANER) were also calculated. Moreover, school enrolment of the children of age six, the entry age for primary schooling in Bangladesh, was specifically examined by exploring the gross and net intake ratios as indicators. Access to education cannot be meaningful without continuing participation in it. Accordingly, attendance of students in schools was also investigated.

### A. Gross enrolment

Official duration of primary education is five years in Bangladesh (GoB 1990). Children aged 6-10 years are enrolled in schools for primary education. However, it was seen in previous studies under *Education Watch* and other surveys that the children beyond the official age range also get admitted for primary education. This happened at both ends of primary enrolment age. Moreover, repetition (unsuccessful in getting promotion from one grade to the next) also resulted over-aged children’s presence in primary education. Thus, in order to understand access to primary education it is important to explore the gross enrolment ratio.

*Gross enrolment ratio (GER):* It refers to the *number of children currently enrolled in primary grades (I-V) for every 100 children of age 6-10 years*. Children may enrol in any type of primary educational institutions including formal or non-formal, secular or faith-based, and Bangla or English medium.

Table 6.1 shows that the gross enrolment ratio was found to be 104 in 2013. It was 101 for the boys and 108 for the girls, indicating more girls than boys enrolled in primary education who were either under- or over-aged. The GER was 106 in rural areas and 96 in urban areas. This means that a large number of children outside primary school age were enrolled in grades I-V in rural areas. The figure for the urban areas shows that the enrolment is more stringent in urban areas, with no children beyond the recommended age taken.

The GER came down over the period of 15 years – from 107 in 1998 to 104 in 2013 (Table 6.1). Gender-wise, much reduction in GER was found among the boys but not among the girls. For boys, it was 108 in 1998 which came down to 101 in 2013.

Residence-wise, more reduction in GER was noticed in urban areas than in rural areas. In urban areas, the GER was 105 in 1998 which was reduced to 100 in 2005 and to 96 in 2013.

*Grade-wise distribution of students:* Percentage distribution of students by grade of enrolment also changed over one-and-a-half decade (Table 6.2). The distribution was wider in 1998 than in recent past. In 1998, a third of the primary students were enrolled in grade I which gradually decreased to about 20% in each of the grades II and III, and

**Table 6.1**  
*Trends in gross enrolment ratio by residence and gender, 1998–2013*

Children groups	Years				
	1998	2000	2005	2008	2013
All	107	108	104	103	104
<i>Gender</i>					
Boys	108	108	103	101	101
Girls	109	107	106	106	108
<i>Residence</i>					
Rural	108	108	105	104	106
Urban	105	106	100	100	96

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

to nearly 14% in each of the grades IV and V – indicating high dropout of students over the five years of primary education. The proportion of the first graders gradually fell from 33.4% in 1998 to 31.7% in 2000, to around 28% in 2005 and 2008, and to 21.3% by 2013. Consequence of this is the increase of proportions of students in other grades. In 2013, the proportion of students in the first three grades was 21-22% in each and 17-18% in each of the other two grades. A similar trend was observed when data were analysed by gender and by area of residence of the students. Gender and residence-wise analyses on 2013 data are provided in Annex 6.1.

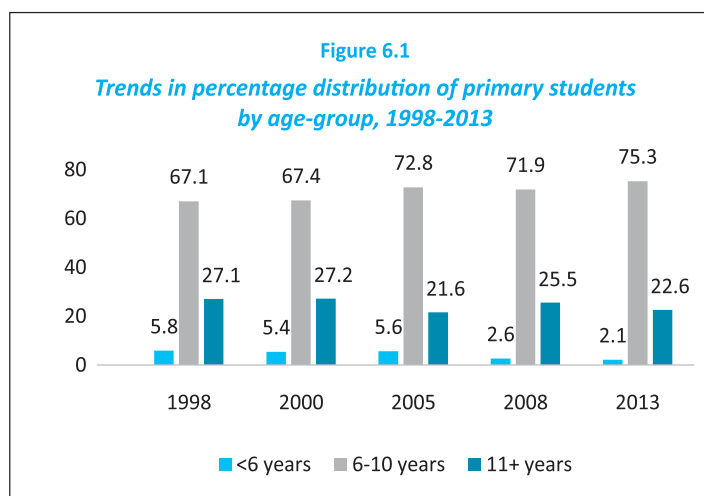
**Students' age-grade gap:** A gross enrolment ratio higher than 100 already gave an indication of presence of under and over aged students in primary education. Figure 6.1 clearly shows the change in the proportion of under and over aged students in primary education. It can be seen that the proportion of children below six years as well as over 10 years have decreased over time. For instance, in 1998, children below six years were 5.8% and children over age 10 were 27.1% in primary schools. Over 15 years, the figures came down to 2.1% and 22.6%, respectively. As a result, proportion of students in primary education belonging to the official age-range (6-10 years) has gradually increased. For instance, the proportion at the right age-range was 67.4% in 1998, which increased to over three quarters in 2013. Over eight percentage points increase over a period of one-and-a-half decade.

The above is a gross calculation on the age issue and sometimes may be misleading. For instance, it did not say anything among those students who enrolled in a grade lower than the grade appropriate to their age, although they all belonged to the official primary age range. Table 6.3 shows it in a better way. The table was created through matching ages of the students with grades of enrolment. On average, perfect matching of age and grade was found 28.4% in 2013 which actually

**Table 6.2**  
*Trends in percentage distribution of primary students by grade, 1998–2013*

Grades	Years				
	1998	2000	2005	2008	2013
I	33.4	31.7	28.0	28.3	21.3
II	19.6	20.3	21.8	21.6	22.2
III	19.4	18.7	19.5	19.5	21.3
IV	13.8	14.3	14.8	16.3	17.9
V	13.7	15.1	19.5	14.2	17.3
Total	100.0	100.0	100.0	100.0	100.0

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

**Table 6.3**  
*Percentage distribution of primary students by the difference between age and grade of current enrolment and year, 1998–2013*

Difference (age-grade)	Years				
	1998	2000	2005	2008	2013
Younger	10.3	9.8	12.7	6.1	7.5
Right age	18.3	19.9	25.0	20.2	28.4
1 year older	24.4	25.1	26.6	30.9	30.3
2+ years older	47.0	45.2	35.7	42.8	33.8
Total	100.0	100.0	100.0	100.0	100.0

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

increased over time from 18.3% in 1998. Similarly, proportion of students one year older than appropriate ages of their grades also increased from 24.4% in 1998 to 30.3% in 2013. The rate of perfect matching increased 10.1 percentage points over 15 years and the rate of one year deviation increased 5.9 percentage points; totalling 16 percentage points. If we are reluctant to a year deviation from grade it can be said that proportion of students enrolled in age appropriate grades increased at least one percentage points by a year. Although the situation has improved over the period, over a third of the primary students of 2013 were in a grade two or more years behind their age. So, the situation is still at a serious stage. However, enrolment of under-aged children also reduced over this period.

## B. School type-wise enrolment

Percentage distribution of students by school type over the years is provided in Table 6.4. Majority of the primary students are enrolled in the government primary schools throughout the period; however, the share of government schools has changed over time. It has gradually decreased from 68.3% in 1998 to 56.9% in 2008 and then increased to 58.2% in 2013. Increased share of the newly nationalized primary schools (called registered or non-registered non-government primary schools in earlier studies) is also noticeable. Their share was 15.2% in 1998 which decreased at around 20% afterwards. Totalling the shares of these two types of schools, it can be said that while in 1998, 83.5% of the primary students were enrolled in educational institutions directly or indirectly managed by the Directorate of Primary Education (DPE), the main provider of primary education in the country. The figure decreased to 79.7% by 2013. This means that at present about a fifth of the primary students were enrolled in institutions which were not managed by DPE.

The share of the kindergartens increased substantially over the past one-and-a-half decade. Kindergartens share in primary education was only 1.5% in 1998 which increased to 2.1% in 2000, 4.3% in 2005, 4.7% in 2008, and 7.4% in 2013 (Table 6.4). Major

increase was observed between 2008 and 2013. Increase in the share of madrasas was also noticed up to 2005 which reduced afterwards. Proportion of primary students in the madrasas (combining ebtedayee and higher) increased from 7% in 2000 to 9.4% in 2005 then fell to 7% in 2008 and 6.6% in 2013. Share of the independent ebtedayee madrasas was always much less than that of the ebtedayee section of the higher madrasas (dakhil, alim, fazil or kamil). It was because madrasas, in general, are established with an ebtedayee section (calling them ebtedayee madrasa) which are then converted to higher madrasas.

Among other types, the share of the primary sections of the high schools never surpassed 2%. The share of the non-formal primary education (NFPE) was 8.8% in 1998 which gradually decreased to 6.1% in 2005, then jumped up to 9.6% in 2008 and again is reported to be down to 4.3% in 2013 (Table 6.4). Reliability of NFPE statistics in a national sampling is somewhat problematic because these schools are not evenly

**Table 6.4**  
*Percentage distribution of primary students by school type and year, 1998–2014*

School types	Years				
	1998	2000	2005	2008	2013
Government primary	68.3	61.0	59.2	56.9	58.2
Newly nationalized primary <sup>1</sup>	15.2	21.1	19.4	20.5	21.5
Non-formal primary	8.8	7.1	6.1	9.6	4.3
Ebtedayee madrasa	1.3	2.6	3.7	2.2	1.4
High madrasa	3.2	4.4	5.7	4.8	5.2
Kindergarten	1.5	2.1	4.3	4.7	7.4
High school	1.6	1.6	1.6	1.3	2.0
Total	100.0	100.0	100.0	100.0	100.0

1. This includes former non-government schools (both registered and unregistered), community and satellite schools

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

distributed in all areas. Such a non-steady situation of the non-formal schools may be because they are fully dependent on foreign aid. Steady increased capacity of the state system (as seen in Chapters 3 and 4) may also be a strong cause of reduction in the need for non-formal provision and thus the number of schools.

Let us take a look at the 2013 data once again (Table 6.5). It shows that proportionate distribution of girls by school type was mostly similar to that of the boys. However, a noticeable difference was observed between the proportions of students for rural and urban areas. Proportionately more rural students chose government, newly nationalized and non-formal schools than their counterparts in urban areas, whereas, the urban students' share in the kindergartens and the primary section of the high schools was much higher. At the national level, 7.4% of the students enrolled in the kindergartens, but it was 18.7% among the urban students. Again, whereas only 2% of the primary students enrolled in primary classes attached to high schools at the national level, the urban students' share in these was 10%. These raise equity issues within the primary education system, since facilities substantially vary by school type (Chapters 3 and 4).

### C. Net enrolment

The net enrolment rate (NER) is defined as the *number of children aged 6-10 years currently enrolled in any grade in any school for every 100 children of the same age range*. NER at the national level was estimated to be 94.3% in 2013 (Table 6.6). It was significantly higher for the girls than for the boys (95.3% vs. 93.3%;  $p < 0.01$ ), but the children of rural and urban areas enrolled roughly equally— the rates being 94.1% and 95.5%, respectively.

The primary NER significantly increased over the past one-and-a-half decade (Table 6.6). Such improvement was not only at the national level but also for the children of both genders as well as for rural and urban areas. At the national level, the NER was 77% in 1998 which gradually increased to 86.8% in 2005. Following no increase between 2005 and 2008; it rose to 94.3% in 2013. On

**Table 6.5**  
*Percentage distribution of primary students by school type, gender and residence, 2013*

School types	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Government primary	56.6	59.8	59.4	51.4	58.2
Newly nationalized	21.3	21.7	23.4	11.2	21.5
Non-formal primary	4.1	4.5	4.8	1.6	4.3
Ebtedayee madrasa	2.0	0.8	1.3	1.9	1.4
High madrasa	5.7	4.8	5.3	4.9	5.2
Kindergarten	8.2	6.6	5.3	18.7	7.4
High school	2.1	1.9	0.5	10.3	2.0

Source: Education Watch Household Survey, 2013

**Table 6.6**  
*Trends in net enrolment rate by gender and residence, 1998–2013*

Residence and gender	Years					Level of significance
	1998	2000	2005	2008	2013	
All Bangladesh	77.0	79.8	86.8	86.4	94.3	$p < 0.001$
<i>Gender</i>						
Boys	75.5	79.8	85.6	85.6	93.3	$p < 0.001$
Girls	78.5	79.9	88.0	87.1	95.3	$p < 0.001$
Level of significance	$p < 0.001$	ns	$p < 0.001$	$p < 0.01$	$p < 0.01$	
<i>Residence</i>						
Rural	76.7	79.6	86.6	86.2	94.1	$p < 0.001$
Urban	79.0	81.5	88.1	87.6	95.5	$p < 0.001$
Level of significance	$p < 0.05$	$p < 0.01$	$p < 0.05$	$p < 0.05$	ns	

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

average, the increase was more than one percentage point per year over 15 years. The rate of improvement per year was somewhat higher in the later period than the former – 1.6 and 1.4 percentage points, respectively.

A significantly higher NER for girls than boys was recorded in all the household surveys of *Education Watch* except in 2000 where no difference was observed (Table 6.6). Improvement in NER over the period of one-and-a-half decade was one percentage point higher for the boys than for the girls. Separately, the boys progressed 17.8 percentage points and the girls progressed 16.8 percentage points. The rate of progress was faster for the boys than the girls during 1998–2005; an opposite situation was observed during 2008–2013. It should be noted that during 2005–2008, whereas boys NER was stagnant but the girls NER lessened one percentage point.

Urban-rural gap in primary NER was noticed in every household survey of *Education Watch* except the latest one in 2013 (Table 6.6). The NER in urban areas was higher than that in rural areas. However, the progress was slightly more among the rural children than for their urban counterparts. The rural NER increased by 17.4 percentage points and the urban NER by 16.5 percentage points. Although a faster increase in NER was noticed in rural areas than the urban areas during 1998–2005 but both the areas increased with an equal rate during 2008–2013.

Two other indicators related to school enrolment of children may be presented here. These are real net enrolment rate (RNER) and adjusted net enrolment ratio (ANER). Concept of the first one evolved through *Education Watch* studies and the second one was borrowed from the recent EFA global monitoring reports (UNESCO 2014, 2015). The following are the definitions for them.

- Real net enrolment rate (RNER): Enrolment of the children belonging to official age group for primary education at primary classes, expressed as a percentage of the population in that age group.
- Adjusted net enrolment ratio (ANER): Enrolment of the children of official age group for primary education either at that level or the levels above, expressed as a percentage of the population in that age group.

In 2013, the real net enrolment rate (RNER) was found to be 78.3% and the adjusted net enrolment ratio (ANER) to be 80.6%. The RNER was 75.8% for the boys and 80.9% for the girls ( $p < 0.001$ ). It was 78.6% among rural children and 76.9% among urban children with no statistical difference. On the other hand, the ANER was 78.2% for the boys and 83.1% for the girls. It was mostly equal in rural and urban areas (80.6% and 80.1%, respectively). Table 6.7 provides trends in RNER and ANER during 1998–2013. NERs and GERs are also provided in this table for comparison. Two messages can be discerned from this table. First, the adjusted net enrolment rate was slightly higher than the real net enrolment rate throughout the period, indicating a lesser proportion enrolled in the right grade for age. Second, the figures corresponding to gross enrolment ratio was always the highest followed by net enrolment rate and adjusted net

Table 6.7

*Trends in various enrolment rates and ratios, 1998–2013*

Rates/ratios	Years				
	1998	2000	2005	2008	2013
Net enrolment rate	77.0	79.8	86.8	86.4	94.3
Gross enrolment ratio	107.0	108.0	104.0	103.0	104.1
Real net enrolment rate	70.9	73.8	77.0	75.7	78.3
Adjusted net enrolment ratio	71.4	74.6	78.4	76.3	80.6

Sources: *Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013*



enrolment ratio. The real net enrolment rate always produced the lowest figure, again indicating the age-grade gap. Annex 6.2 provides trends in adjusted net enrolment ratio by gender and area of residence.

An attempt was made to project the duration of full achievement of NER, RNER and ANER. Compound Growth Model was used to do so. The results show that it would require more six years to reach 100% NER, 37 years to reach 100% RNER and 26.7 years to reach 100% ANER. In other words, Bangladesh may achieve the full NER by 2019 if the current rate of progress continues. Similarly, the country may achieve full RNER by 2050 and full ANER by 2014. Considering the SDG target timeline it can be said that the rate of progress is rather slow.

#### D. Socio-economic differentials of net enrolment

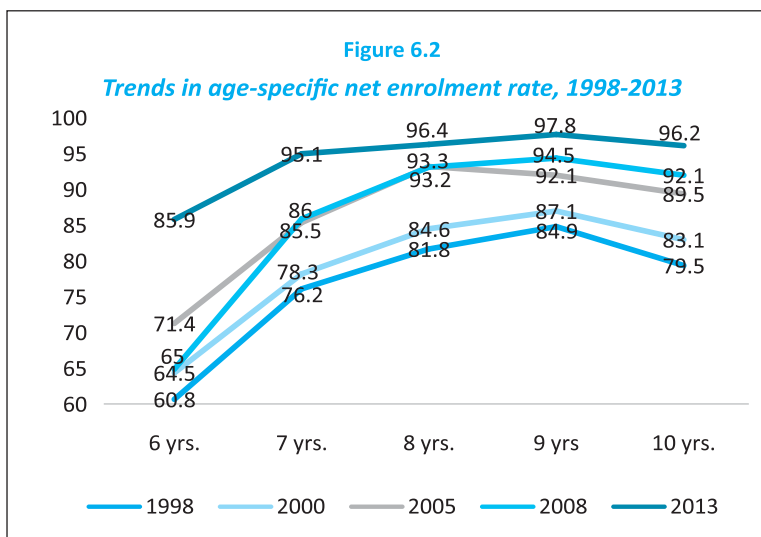
Difference in primary NER in terms of socio-economic background of the children has been a persistent phenomenon throughout the period of the study. The background factors considered were children's age, parental education and household food security status.

*Age-specific NER:* The age-specific NER in 2013 is provided in Annex 6.3. Except for the children of age six years, NER was more than 94% for the children of each single age. This was observed irrespective of gender and residence. At the national level, the NER for the children of age six years was 85.9%. It was 83.9% among the boys and 87.9% among the girls, and 85.3% in rural areas and 88.5% in urban areas. The rate for the boys was less than for the girls at every age. The gap was highest at age ten years. Whereas, over 98% of the girls of age nine and ten were currently enrolled in school it was 97.2% for the nine-year old boys and 94.4% for ten-year old boys (Annex 6.3).

Figure 6.2 shows changes in age specific NER of the primary aged children from five household surveys under *Education Watch*. Statistically significant increase in NER with the increase of age was observed throughout the period of 15 years. However, wide variations in NERs of the first and the last age cohort point to the need for a serious look at enrolment of the children of age six years. During 1998–2013, the rate increased significantly for each of the primary schooling age cohort. The highest rate of increase was recorded at age six which gradually decreased

up to the age of nine and again increased at age 10. NER increased 25.1 percentage points at age six years, 18.9 percentage points at age seven years, 14.6 percentage points at age eight years, 12.9 percentage points at nine years and 16.7 percentage points at 10 years. Drastic fall of NER at age six during 2005–2008 and jump of it during 2008–2013 needs further investigation.

*Parental education and NER:* Similar to previous years, NER significantly increased with the increase of parental education in 2013 (Annexes 6.4 and 6.5). The NER was 90% if the mothers had no education and



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013



97.5% if they had secondary or more education. Similarly, it was 91% if the fathers had no education and 97.8% if they had secondary or more education. Increase of NER with the increase of mothers' education was found among the children of both the genders and among those living in rural areas, but increase in NER was consistent for both gender and urban and rural areas with increase of fathers' education.

Before entering into the analysis of changes in NER in terms of parental education during the past 15 years it would be interesting to see how the parental education of the primary aged children have changed over time. Two indicators were used: proportion of parents never schooled and proportion of parents completing primary education. In 1998, two-thirds of the mothers and 55.7% of the fathers of the children of age 6–10 years had never been to school (Table 6.8). Both the figures gradually decreased over time due to expansion of primary education in the country and reached 33.9% and 41.8%, respectively in 2013. Combining schooling of both the parents it was estimated that in 1998, none of the parents of about half of the children had been to school. This proportion came down to 25.3% by 2013.

Improvement in the proportion of parents completing primary education was also observed— from 21.7% in 1998 to 48.8% in 2013 in the case of mothers and from 32.8% in 1998 to 43.8% in 2013 in the case of fathers (Table 6.9). Overall, the proportion of both the parents completing primary education was 17% in 1998 which gradually and steadily increased to 33.3% in 2013. Earlier the fathers were more educated than mothers but the situation has reversed in recent past. Whether such a vast increase in the parental education has any implication in changing parental role in school operation and specifically in students' learning may be of interest for further exploration.

The primary NER significantly increased over time against every level of parental education (Tables 6.10 and 6.11). The increase was likely to be more if the parents were never schooled or less educated because NER was already high among the children of educated parents. Gap in primary NER between two extreme levels of mothers'

Table 6.8

*Trends in percentage of parents without schooling, 1998–2013*

Parents	Years				
	1998	2000	2005	2008	2013
Mothers	66.3	62.7	50.6	44.8	33.9
Fathers	55.7	53.9	48.2	46.9	41.8
Both	49.1	46.0	36.4	33.3	25.3

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Table 6.9

*Trends in percentage of parents completing primary education, 1998–2013*

Parents	Years				
	1998	2000	2005	2008	2013
Mothers	21.7	24.8	32.1	39.3	48.8
Fathers	32.8	33.9	37.9	40.5	43.8
Both	17.0	19.1	24.1	28.0	33.3

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Table 6.10

*Trends in net enrolment rate by mothers' education, 1998–2013*

Mothers' education	Year					Level of significance
	1998	2000	2005	2008	2013	
Nil	70.7	72.9	81.2	80.8	90.0	p<0.001
1 – 4 yrs.	87.7	88.3	89.7	88.1	95.8	p<0.001
5 – 9 yrs.	91.4	92.9	94.2	91.6	96.6	p<0.001
10 yrs.+	96.2	97.6	96.8	95.4	97.5	ns
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

education also decreased over time. For instance, in 1998, primary NER was 70.7% if the mothers had no education and 96.2% if they completed secondary education or more (Table 6.10). These figures were found 90% and 97.5%, respectively in 2013. Gap between the NERs of two extreme levels of mothers' education was 25.5 percentage points in 1998 which declined to 7.5% in 2013. Over 15 years, the NER for each level of mothers' education increased up to 90% or more. Similar level of changes were noticed in terms of fathers' education too (Table 6.11). The NER increased 19.3 percentage points for the children of the never schooled mothers and 22.6 percentage points for the children of never schooled fathers. In 2013, the NER was 90% or more for every level of parental education. In 2013, NER was 90% or more for every level of parental education.

Table 6.11

*Trends in net enrolment rate by fathers' education, 1998–2013*

Fathers' education	Year					Level of significance
	1998	2000	2005	2008	2013	
Nil	68.4	71.6	81.4	81.4	91.0	p<0.001
1 – 4 yrs.	84.5	85.8	87.6	88.0	95.6	p<0.001
5 – 9 yrs.	87.8	89.7	93.0	90.2	96.5	p<0.001
10 yrs.+	94.4	95.1	95.6	95.5	97.8	p<0.01
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

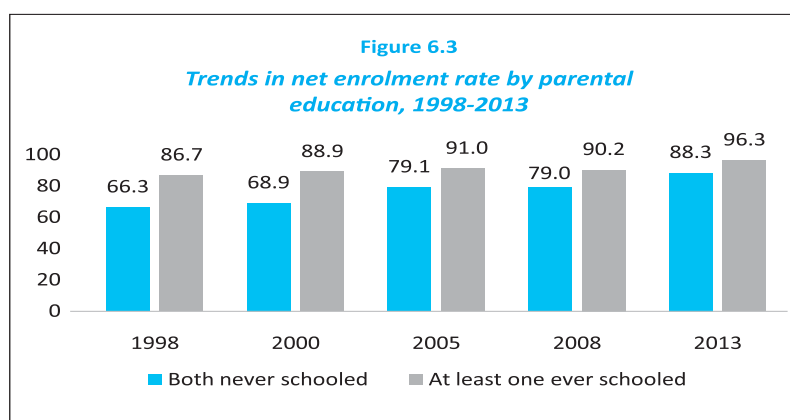
Figure 6.3 shows trends in primary NER for the children of never schooled parents and for at least one parent ever schooled. In 1998, two-thirds of the children of the parents none of whom had ever been to school were currently enrolled. The figure increased to 68.9% in 2000 and to 79% during 2005–2008 and jumped up to 88.3% in 2013. NER was 86.7% in 1998 for those having at least one ever schooled parent. The figure rose to 91% in 2005 and 96.3% in 2013. Increase in NER for both the cases was statistically significant. Year-wise analysis also shows significantly higher NER if at least one parent had schooling than both without schooling.

*Yearly food security status and NER:*

As a proxy for income level or economic status of the households,

yearly food security status was collected. The respondents were asked to rate their households in a four point scale taking into account the past year's income from all sources and expenditure in every heads. The points in the scale were: *always in deficit*, *sometimes in deficit*, *breakeven* and *surplus*. In 2013, the primary NER has significantly increased with the increase of yearly food security status of households (Annex 6.6). Separate analysis shows that this was the case for the children of both genders as well as for rural children.

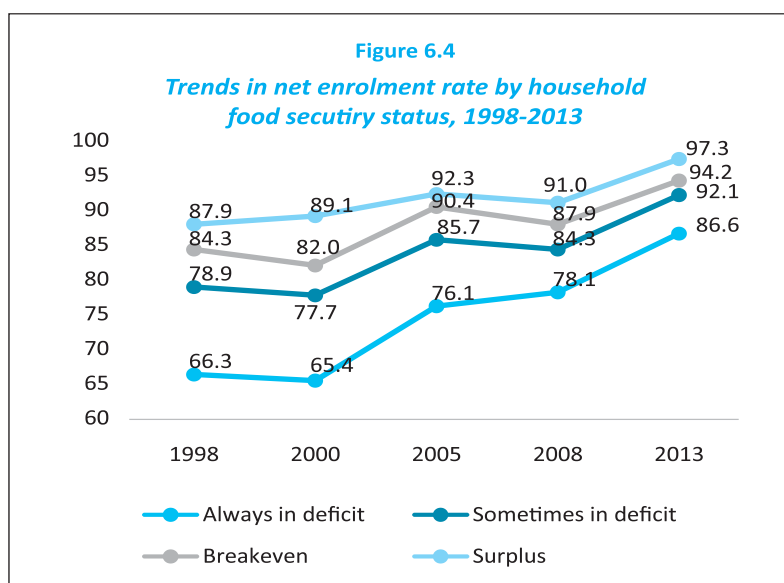
Figure 6.4 presents progress in NER by yearly food security status of households during 1998–2013. The following are the observations in brief.



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

- On average, the enrolment situation of primary school age children has improved during this period for all four economic categories of households. Major improvement was noticed in the *always in deficit* households (20.3 percentage points) and the least improvement in the *surplus* households (9.4 percentage points).
- Gap in NER between *always in deficit* and *surplus* households halved over 15 years – 21.6 percentage points in 1998 to 10.7 percentage points in 2013.
- Improvement was faster during 2008–2013 compared to that during 1998–2005 in all four categories of households.

Some more analyses of NER based on 2013 data are provided in Annexes 6.7 to 6.10. These provide NER in terms of ethnicity, religion, electricity availability at home and distance between home and nearest primary school. All analyses are done separately for boys and girls and for urban and rural children. Overall, no difference was observed in NER in terms of religion, ethnicity or distance between home and school. However, the NER was found significantly higher among those having electricity connection at home than those who did not have.

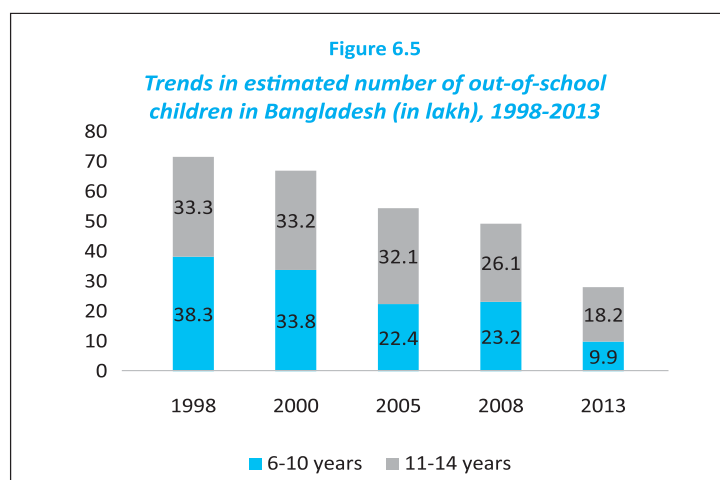


Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

## E. Out-of-school children

In Bangladesh, education for the children aged 6–10 years is compulsory by law (GoB 1990). Thus, proportion of out-of-school children was calculated for them. Out-of-school children includes those who never enrolled in school and those enrolled but dropped out before crossing the above age limit. In other words, children of age 6–10 years who were currently not enrolled in school were considered as out-of-school children.

The proportion of out-of-school children has been reduced over the last 15 years. In 1998, 23% of the 6–10 years old children were out-of-school which came down to 20.2% in 2000 and 13.2% in 2005. A slight increase was noticed in 2008 with a proportion of 13.6% and then this decreased again to 5.7% in 2013. Thus, the proportion of out-of-



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013  
Various reports of Bangladesh Bureau of Statistics

school children came down to a quarter over 15 years' period from 1998 to 2013. Decrease in the out-of-school children was observed in all groups of children categorized by age, gender, residence, parental education, yearly food security status and religious beliefs. Major improvement was noticed in the poorest (always in deficit) households and among the children of never schooled (or with a few years of education) parents.

Total number of out-of-school children was estimated through extrapolating the above figures with the population of age 6–10 years gathered from various census publications of the Bangladesh Bureau of Statistics (BBS). The estimates show that the number of out-of-school children was 3,830,093 in 1998, 3,380,703 in 2000, 2,236,939 in 2005, 2,321,837 in 2008 and 985,366 in 2013 (Figure 6.5). Declining the out-of-school children in absolute number is really an indication of progress in access to primary education. Annex 6.11 provides details of this calculation.

One of the KPIs is to reduce the number of out-of-school children among those aged 6–10 years and as well as 11–14 years. Following the similar way, as mentioned above, it was estimated that 33,31,521 children aged 11–14 years were out-of-school in 1998 (Figure 6.5). The number reduced over time and reached 33,18,796 in 2000, 32,05,784 in 2005, 26,12,050 in 2008 and 18,18,353 in 2013. Totalling those in both the age-groups, it can be said that 71,61,614 children of age 6–14 years were out of school in 1998 which reduced to 28,03,719 in 2013. This means a reduction of 61% over a period of 15 years. Details of the calculation of out-of-school children among aged 11–14 years is provided in Annex 6.12.

## F. Multivariate analysis of enrolment

A multivariate logistic regression model was developed in order to predict net enrolment of the children aged 6–10 years. This would help understand the predictive power of various background characteristics of the children in their enrolment in school. The dependent variable was the children's enrolment status measured dichotomously, viz., currently enrolled or currently not enrolled. Ten independent variables were

**Table 6.12**  
*Logistic regression model predicting primary net enrolment, 2013*

Predictors	Regression coefficients	Odds ratios	95% confidence interval
<b>Students age</b>			
6 yrs.	0	1.00	
7 yrs.	1.31	3.72	2.62 – 5.29
8 yrs.	1.68	5.38	3.64 – 7.96
9 yrs.	2.20	9.06	5.55 – 14.78
10 yrs.	1.75	5.74	3.96 – 8.34
<b>Gender</b>			
Boys	0	1.00	
Girls	0.35	1.42	1.10 – 1.83
<b>Fathers education</b>			
Nil	0	1.00	
1 – 4 yrs.	0.60	1.82	1.20 – 2.76
5 – 9 yrs.	0.64	1.89	1.32 – 2.73
10 yrs.+	0.84	2.32	1.14 – 4.71
<b>Mothers education</b>			
Nil	0	1.00	
1 – 4 yrs.	0.75	2.11	1.43 – 3.12
5 – 9 yrs.	0.88	2.40	1.71 – 3.38
10 yrs.+	0.64	1.90	0.85 – 4.24
<b>HH food security status</b>			
Always in deficit	0	1.00	
Sometimes in deficit	0.62	1.85	1.22 – 2.81
Balance	0.70	2.01	1.32 – 3.06
Surplus	1.23	3.43	2.10 – 5.62
Constant	- 0.01		
-2 Log Likelihood	1859.05		
Cox & Snell R <sup>2</sup>	0.06		
Nagelkerke R <sup>2</sup>	0.17		

Source: Education Watch Household Survey, 2013

primarily considered. These include age, gender, residence, mothers education, fathers education, household food security status, availability of electricity at home, distance between homes and nearest primary educational institutions, ethnicity, and religion. Each of them were measured categorically (Annex 6.13). Distribution of the children aged 6–10 years in terms of the above characteristics is provided in Annex 6.14.

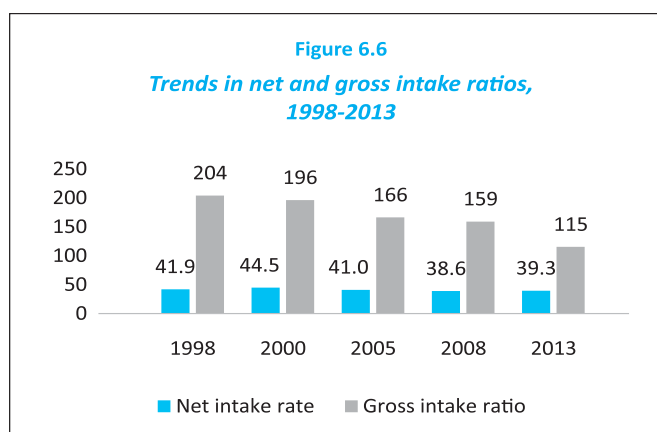
In building the model a stepwise approach was followed and the variables appeared in the model through forward selection and backward elimination. Thus, only the variables having statistically significant contribution in explaining the variability in the dependent variable appeared in the final model. The final model included only five of the above independent variables. These, in terms of chronology of appearance in the model, are age, mothers' education, household food security status, fathers' education and gender. Table 6.12 provides the model with regression coefficients and their odds ratios along with 95% confidence limit. Following are the major observations from this analysis. Chronology of appearance indicate importance of the variables in explaining variation in the dependent variable. In other words, chronologically importance of them in predicting school enrolment of children aged 6–10 years. It should be mentioned that, these five variables explained only 6% of the variation in enrolment.

A comparison between the model based on 2008 data (Nath and Chowdhury 2009, page 73) and this can be made. The first difference is that seven background characteristics appeared in the 2008 model and five in 2013 model. Five characteristics are common in both. The two additional variables appeared in 2008 model were residence and distance between home and nearest primary school. Secondly, the predicting variables explained 13% of variability in school enrolment in 2008 and 6% in 2013. Thirdly, age of children came out as the most important predictor in both the models followed by mothers' education. Reduction in both the number of explanatory variables and capacity of them in explaining variability in the dependent variable indicate that children's characteristics other than those used in the analyses becoming more important over time. This is more relevant in the context of fast increasing enrolment situation as well as a situation with a high enrolment rate.

## G. Gross and net intake ratios

These two indicators are based on the entry age of primary education. In our case it is the children of age six. Exploration of access to education at the entry age is the aim of this section. Following are the definitions of these two.

- *The gross intake ratio (GIR)* is the total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age.
- *The net intake rate (NIR)* is the new entrants in the first grade of primary education who are of the official primary school-entrance age, expressed as a percentage of the population of the same age.



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

In 2013, GIR was estimated as 115% and the NIR 39.3%. Trends analyses show that both the ratios decreased over time during 1998–2013 (Figure 6.6). Of the two, the rate of decrease was much faster in the case of GIR than that of NIR. The GIR was over 200% in 1998 which gradually reduced to 166% in 2005 and to 139% in 2013. On the other hand, NIR was over 40% during 1998–2005, which came down below 40% later. On the whole, very little change was observed in NIR over the past 15 years.

Among the children of age six, in 2013, 36.5% enrolled in pre-primary education, 46.9% in primary education (39.3% in grade I and rest in grade II), 2.4% in non-graded madrasas and 14.2% did not enrol in any educational institution (Annex 6.15).

Half of the girls and 43.6% of the boys enrolled in primary education. The rate was about 47% in both urban and rural areas.

Table 6.13 provides the above analysis for various years during 1998–2013. It shows that the proportion of six years old children currently enrolled in primary education has decreased over the period. On the other hand, the proportion of them currently enrolled in pre-primary education has increased a lot – below 10% in 1998 to 36.5% in 2013. The proportion of six years old enrolled in non-graded madrasas also increased. Their tendency of being out-of-school has also decreased significantly.

**Table 6.13**

*Trends in percentage distribution of children aged six years by level of education currently enrolled, 1998–2013*

Level of education	Years				
	1998	2000	2005	2008	2013
Pre-primary	9.5	10.8	16.5	18.8	36.5
Primary	50.3	53.3	54.0	43.8	46.9
Non-graded madrasa	1.0	0.5	1.0	2.3	2.4
Out-of-school	39.2	35.4	28.5	35.0	14.2
Total	100.0	100.0	100.0	100.0	100.0

*Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013*

Table 6.14 provides age distribution of the first graders in various years. Children aged 4–13 years were found enrolled in grade I. The table shows an improvement of the situation over time. The following is a summary of this improvement.

- The proportion of children aged 4–5 years in grade I has decreased during 1998–2013. Enrolment of eight years or older children in grade I also decreased over the period.
- The proportion of children of age six enrolled in grade I has increased over time. For instance, only a fifth of the first graders were of age six in 1998 which gradually increased to 34.2% in 2013. The proportion of seven years old also increased somewhat in grade I; from 26.1% in 1998 to 31.2% in 2013.
- Mean age as well as standard deviation of age of first graders decreased during 1998–2013. Thus, the coefficient of variation also decreased – from 25% in 1998 to 20.3% in 2013.

All these findings portray a shrinking age-grade gap in primary education.

In an ideal situation there should be very little or no difference between GIR and NIR. A higher GIR than NIR, which is the case here, indicates that children in Bangladesh start their primary education late. There were two reasons for lower NIR. First, a good proportion of the children of age six did not enrol in school and second, a portion enrolled in pre-primary education. The situation related to the first reason has improved but the second one has deteriorated. It can be seen that parents were not willing to admit their children in the first grade of primary education at age six and still they are not. After introduction of pre-



primary education they became willing to admit their children in pre-primary at age six rather than at the appropriate age of five. That's why a very high NER but a low NIR is seen.

Now the question comes how long it would take to admit all children in grade I at their right age. Using Compound Growth Model it was estimated that another 30 years would require to bring all children of age six years to grade I of primary education. This means that Bangladesh would see its all children of age six years admitted in grade I by 2043 if current

growth rate continues. If one year is relaxed, all children of age 6–7 years will admit in grade I by 2031 – after the end of SDG period.

## H. Students' classroom attendance

Students' attendance in classrooms is the second important measure of schooling after enrolment. Similar to the previous *Education Watch* studies, to derive the attendance rate, head count was done in the classrooms on the survey day and the figure was compared with the student registers. On average, in 2014, nearly three-quarters of the registered students attended classes on the survey day. The attendance rate was higher among the girls than the boys (76.4% vs. 72.4%). It was found to be much higher for students of grade V than the other grades. There may be a link with the Primary Education Completion Examination (PECE). Annex 6.16 shows that whereas 72–75% of the registered students of grades I–V attended classes on the survey day it was 81.6% for students of grade V. The attendance rate was substantially higher among girls than boys in every grade.

School type-wise analysis shows that the non-formal schools performed better with 89.4% of students' attending followed by the kindergartens which counted an attendance rate of 83.3% (Annex 6.17). The

**Table 6.14**  
*Percentage distribution of the first graders by age and year, 1998-2013*

Age (in year)	Year				
	1998	2000	2005	2008	2013
4–5 yrs.	16.5	16.3	18.5	8.9	9.1
6 yrs.	20.0	21.8	23.8	23.9	34.2
7 yrs.	26.1	27.1	29.7	33.4	31.2
8 yrs.	17.8	18.3	16.4	19.9	15.5
9 yrs.+	19.6	16.5	11.6	13.9	10.0
Total	100.0	100.0	100.0	100.0	100.0
Mean	7.2	7.1	6.8	7.2	6.9
S. d.	1.8	1.7	1.5	1.4	1.4
C. V.	25.0	23.9	22.1	19.4	20.3

Note: S.d. = Standard deviation, C.V.= Coefficient of variation

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

**Table 6.7**

*Trends in various enrolment rates and ratios, 1998–2013*

Rates/ratios	Years				
	1998	2000	2005	2008	2013
Net enrolment rate	77.0	79.8	86.8	86.4	94.3
Gross enrolment ratio	107.0	108.0	104.0	103.0	104.1
Real net enrolment rate	70.9	73.8	77.0	75.7	78.3
Adjusted net enrolment ratio	71.4	74.6	78.4	76.3	80.6

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

students' attendance rate was 72.4% in the government primary schools and 71.4% in the newly nationalized primary schools. The ebtedayee madrasas were at the bottom in this regard with an attendance rate of 65%. Girls were ahead of the boys in attending schools of every type.

Students' classroom attendance also increased over time. It was about 60% during 1998-2000, which increased to 67.7% in 2008 and 74.7% in 2014. Increase in attendance rate occurred in all four common types of primary educational institutions, viz., government, newly nationalized, non-formal and ebtedayee madrasa. The non-formal schools had the highest attendance rate and the ebtedayee madrasas had the lowest in each survey year.

Information on classroom capacity and schools ability to provide seating space to the registered students were presented in Chapter 3. Let us now connect it with students' attendance. It was seen that the classrooms were less capable to provide space to all the registered students. This was not a problem for the students because their attendance was less than the capacity of the classrooms. In 2014,

out of 44 registered students the schools were able to give space to 39.6 students but only 33.1 were present in the classrooms (Annex 6.18). In other words, schools had the ability to give space to 89.2% of the registered students but as the attendance rate was 75.2% all attendees had space in the classrooms. This means that all students who attended in schools could be modestly accommodated. School type-wise separate analysis also show similar situation in each of the school type. The above analyses done separately for rural and urban schools are provided in Annex 6.19.

Table 6.15 provides trends in mean numbers of registered students, students who can seat with ease and those who attended school as well as the percentages of these categories. It shows that these percentage increased over time during 1998–2014. In each survey year, the students' attendance rate was lower than the percentage of students who could seat with ease, although both increased over time.

Attendance rate of the students of primary grades needs to be increased. One cannot expect that all students attend in schools everyday because of many practical reasons like illness, household necessity, etc. However, an expectation of 90% may not be treated as high if our intention is to achieve quality education for all. Using the same model as mentioned in other cases it was projected that if the current rate of progress continues, more 12.9 years would be required to have 90% attendance rate among primary students. In other words, Bangladesh would have to wait till 2027 to reach 90% attendance rate at primary level.

## 1. Summary findings

It is an important consideration for Education for All (EFA) as well as for assessing quality of any education system. Various indicators were used to assess students' enrolment in primary education. Students' classroom attendance was also investigated.

**Table 6.15**

*Trends in mean number of students registered, can seat with ease in classroom and attended in school by school type, 1998–2014*

Year	Mean number of students...			Percentage of registered students...	
	Registered	Can seat with ease	Attended in school	Can seat with ease	Attended in school
1998	48.2	32.0	28.4	66.4	58.9
2008	41.2	37.0	27.9	89.8	67.7
2014	44.4	39.6	33.1	89.2	74.5

*Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014*



- Access to primary education has increased over time. It was observed in terms of net enrolment rate (NER), real net enrolment rate (RNER) and adjusted net enrolment ratio (ANER). NER is calculated as the ratio of students of age 6-10 years *enrolled in any grade* in school against the 6-10 year old child population. RNER refers to 6-10 year olds who are *enrolled in primary grades* against the child population in that age group; while ANER is based on 6-10 year olds who are *enrolled in the primary stage or beyond* against the child population in that age group.
- There were improvements over time in all of the access indicators. NER increased from 77% in 1998 to 94.5% in 2013, RNER increased from 70.9% in 1998 to 78.3% in 2013, and ANER increased from 71.4% in 1998 to 80.6% in 2013. The girls surpassed the boys in enrolment throughout the period (1998–2013). The rates were higher for the rural children than those of urban areas in 1998 but an opposite scenario was observed in recent years.
- A wide variation in the distribution of primary students among various grades was a reality in earlier years. For instance, in 1998, a third of the primary school students were enrolled in grade I which came down to 13.7% in grade V. In 2013, on the other hand, the proportions of students in the first three grades were 21–22% in each and 17–18% in each of the last two. The more balanced proportions are an indication of less dropout in primary grades across the board, improvement in retention for higher grades, and thus greater efficiency.
- In 2013, children's school enrolment was found to be significantly and positively associated with children's age, parental education and household food security status. At the same time, difference in enrolment rate for various degrees of household food security and parental education decreased over time. This appears to be related to absolute improvement across the board in economic situation of households and the level of parental education as well as the efforts of schools to attract children to school and hold on to them.
- Although the entry age for primary education is six years by law; earlier, the parental tendency was to enrol their children in the first grade of primary education at age 7–9 years. The situation has changed over time. More parents are bringing their children to school at the right age. Only a fifth of the first graders was of age six in 1998 which gradually increased to over a third (34.2%) in 2013. Six to seven years old children comprised of 46% of the first graders in 1998, which increased to 65.4% in 2013. Coefficient of variance in age among the first graders decreased from 25% in 1998 to 20.3% in 2013. Still in 2013, a quarter of the first graders were eight years or older.
- The increasing tendency of six years old children being enrolled in pre-primary education appears to be a new phenomenon. In 1998, when pre-primary education was not common, less than 10% of six years old children enrolled in such education; the rate gradually increased and reached 36.5% by 2013. By this time, the government had instructed all primary schools to open pre-primary classes.
- As a result of increased enrolment, the number of out-of-school children decreased in absolute number. Of the children aged 6–10 years, 38.3 lakh were out-of-school in 1998 which is reported to have decreased to 33.8 lakh in 2000, 22.4 lakh in 2005, about the same in 2008 and a decrease to about 9.9 lakh in 2013. Number of out-of-school children among aged 11–14 years also reduced over time – 33.3 lakh during 1998–2000 to 32.1 lakh in 2005, 26.1 lakh in 2008 and 18.2 lakh in 2013. Over 28 lakh children of age 6–14 years were out-of-school in 2013.
- Students' classroom attendance rate increased over time – from 58.9% in 1998 to 67.7% in 2008 and 74.5% in 2014. This Improvement was observed in each type of primary institutions during 1998-2014, viz., government (from 58.1% in 1998 to 72.4% in 2014), newly nationalized (52.1% to 71.2%), non-formal (80.7% to 89.4%) and ebteyadee madrasa (47.4% to 65%).





## Chapter 7

# Internal Efficiency of Education Institutions



Promotion, dropout and repetition, survival of students at various grades, completion of students the full cycle of primary education and coefficient of efficiency are the issues related to internal efficiency of any primary education provision. Household survey gives a partial picture of dropout but nothing about the other indicators. An ideal method of estimating a range of internal efficiency indicators is to follow a cohort of students for five consecutive years. In absence of this, a reconstructed (synthetic) cohort analysis was done to estimate the indicators related to internal efficiency of primary education. This method is based on cross-sectional data from grade-wise school records on promotion, repetition and dropout and is a recognised method of gauging internal efficiency of schools.

### A. Promotion, dropout and repetition

Grade-wise information on number of students enrolled, promoted, dropped out and repeated during 2013 and the number of students enrolled in various grades in 2014 were collected from each of the educational institutions under survey. This allowed school type and grade-wise calculation of promotion, dropout and repetition rates for 2013-14.

On average, from 2013 to 2014, 92% of the students were promoted to the next grade in primary educational institutions, 1.1% dropped out and 6.9% repeated grades (Table 7.1). These rates varied from one grade to another. The promotion rate was much higher in grade V (97.6%) than any other grades due to high pass rate in Primary Education Completion Examination (PECE). It was much lower in grades III and IV (about 90%). The likely cause is that schools controlled the promotion rate at this stage in order to ensure high pass rate in PECE. The repetition rates in these two grades were also much higher than other grades.

No particular trend was observed in the rates. For instance, the promotion rates were around 92% for the students of the first two grades which then dropped to about 90% for those in grades III and IV and jumped up to 97.6% for the students of grade V. Just an opposite scenario was observed in the case of repetition rates. The dropout rates were below 2% in each of primary grades.

Over the period of the past 16 years, the promotion rate increased and the dropout and repetition rate decreased (Table 7.2). Not much variation was observed in these rates between 1998 and 2000. A negative change occurred in 2008 but a positive change observed in 2014. The promotion rate was about 87% in 1998 and 2000 which dropped to 77.6% in 2008 and increased to 92% in 2014. From about 5% in 2000, the dropout rate increased to 11.5% in 2008 and dropped to only 1.2% in 2014. The

**Table 7.1**

#### *Promotion, dropout and repetition rates by grade, 2013-14*

Grade	Percentage of students			Total
	Promoted	Dropped out	Repeated	
Grade I	91.8	0.8	7.4	100.0
Grade II	92.3	0.9	6.8	100.0
Grade III	89.8	1.3	8.9	100.0
Grade IV	90.0	1.8	8.2	100.0
Grade V	97.6	1.3	1.1	100.0
All	92.0	1.2	6.8	100.0

Source: Education Watch Educational Institution Survey, 2014

**Table 7.2**

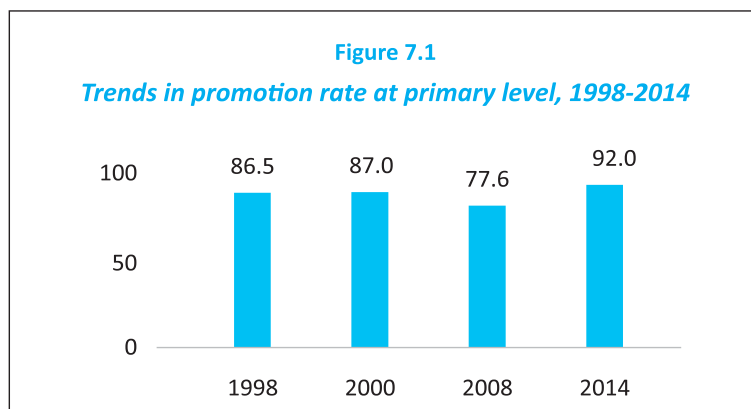
#### *Trends in promotion, dropout and repetition rates by grade, 1998–2014*

Year	Percentage of students			Total
	Promoted	Dropped out	Repeated	
1998	86.5	5.6	7.9	100.0
2000	87.0	4.9	8.1	100.0
2008	77.6	11.5	10.9	100.0
2014	92.0	1.2	6.8	100.0

Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

repetition rate was about 8% in 1998 and 2000 which increased to 10.9% in 2008 and then came down to 6.8% in 2014. Figure 7.1 presents trends in promotion rate (consolidating all grades) at primary level for the period 1998–2014.

School type-wise analysis shows that the promotion rates were much higher in the kindergartens and the non-formal schools (98–99%), followed by the government primary schools (92%) and the newly nationalized primary schools and ebtedayee madrasas (about 90%) (Table 7.3). Compared to others, a much higher dropout rate was observed in the ebtedayee madrasas and repetition rates in the government and newly nationalized primary schools and the ebtedayee madrasas. Annex 7.1 provides similar analysis for the four survey years during 1998–2014 separately for four types of schools which were common in each school survey.



Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

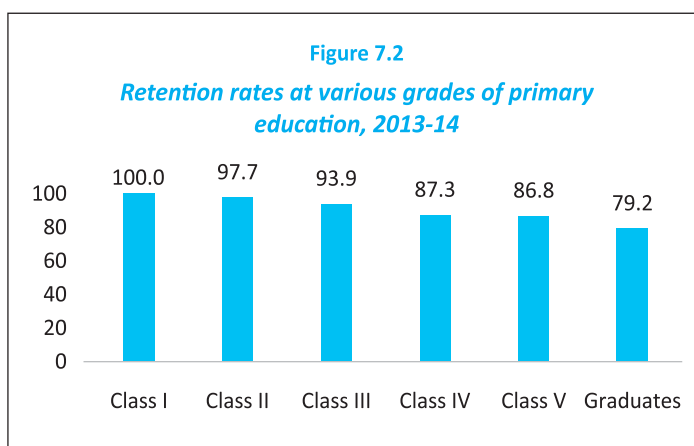
**Table 7.3**  
*Promotion, dropout and repetition rates by school type, 2013-14*

School type	Percentage of students			Total
	Promoted	Dropped out	Repeated	
Government	92.0	1.1	6.9	100.0
Newly nationalized	90.9	1.6	7.5	100.0
Kindergarten	99.0	0.3	0.7	100.0
Non-formal	98.0	1.7	0.3	100.0
Ebtedayee madrasa	89.6	4.6	5.8	100.0
All	92.0	1.2	6.8	100.0

Source: Education Watch Educational Institution Survey, 2014

## B. Retention and cycle completion

Retention of students in various grades, survival up to grade V and completion of the full cycle of primary education are three important indicators for assessing internal efficiency of a primary education system. School level grade-wise data on number of students registered in 2013 and 2014, and numbers of students promoted to the next grade, who remained in the same class and who dropped out during the year in 2013 were collected and analysed. A reconstructed cohort method was used. In this method, a hypothetical cohort of 1,000 students entering in grade I is reconstructed and assumed that they would experience the current promotion, repetition and dropout rates for the next five years. This allows calculation of estimates of retention rates at various grades, survival up to grade V and completion of the primary level. Data were analysed by using UNESCO-PROAP software called Edu-Analysis (UNESCO 2001). Reliability of the estimates largely depends on authenticity of school records.



Source: Education Watch Educational Institution Survey, 2014

Overall, among the students who enrolled in grade I, 97.7% survived up to grade II, 93.3% up to grade III, 87.3% up to grade IV and 86.6% up to grade V (Figure 7.2). Thus, the proportion of students who survived up to the end grade of primary education was 86.6%. The full cycle of primary education was completed by 79.2% of the students. The figure also shows that more dropout of students occurred between grades II to III (6.6%) and at grade V (7.6%).

Gender-wise analysis shows that the retention rate was higher for boys than girls in grades II and III but an opposite direction was observed afterwards (Table 7.4). Higher dropout of girls occurred between grades II and III and at grade V. This was so after grade III for the boys. Ultimately, 81.3% of the boys and 90.5% of the girls survived up to grade V and the primary cycle completion rate was 72.4% among the boys and 85.9% among the girls.

Residence-wise analysis shows that the retention rate was higher for the rural students than those of urban areas in grades II and III (Table 7.4). It was slightly higher for the urban students at grade IV. Overall, 86.9% of the rural and 86.3% of the urban students survived up to grade V – the last grade of primary education. The primary cycle completion rate was found to be 79.7% for the rural students and 77.1% for the urban students.

**Table 7.4**  
*Retention rates at various grades of primary education by gender and residence, 2013-14*

Grades	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Grade I	100.0	100.0	100.0	100.0	100.0
Grade II	97.2	97.1	98.2	95.1	97.7
Grade III	96.0	91.2	94.5	91.2	93.9
Grade IV	90.6	92.1	87.2	89.7	87.3
Grade V	81.3	90.5	86.9	86.3	86.8
Graduates	72.4	85.9	79.7	77.1	79.2

Source: Education Watch Educational Institution Survey, 2014

A large difference was observed in the grade-wise retention rates of the students of various types of schools (Table 7.5). The government primary and the non-formal primary schools showed mostly a similar performance in this regard. These two types were ahead of others in retention, survival and completion

**Table 7.5**  
*Retention rates at various grades of primary education by school type, 2013-14*

Grades	School type				
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee
Grade I	100.0	100.0	100.0	100.0	100.0
Grade II	97.6	91.9	94.5	99.0	84.2
Grade III	93.1	90.7	88.6	98.7	71.6
Grade IV	91.5	89.3	77.7	90.8	60.8
Grade V	88.4	70.3	60.2	88.4	46.1
Graduates	86.3	63.3	51.7	86.8	36.8

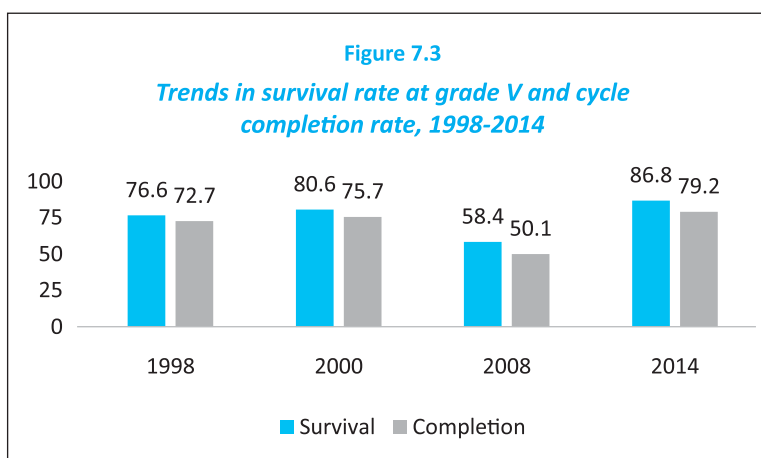
Source: Education Watch Educational Institution Survey, 2014

rates. In both, 88.4% of the students survived up to grade V; and rate was over 86%. The completion rate was 86.8% among the students of non-formal primary schools and 86.4% among those of the government primary schools. Performance of these two types of schools was much ahead of the combined performance of five types of schools.

Grade-wise survival and completion rates were found to be low among the students of other three types of schools (Table 7.5). Among them, the newly nationalized primary schools were ahead followed by the kindergartens and the ebtedayee madrasas. Highest dropout of students occurred from grade IV to V in these institutions – 19% in the newly nationalized primary schools, 17.5% in the kindergartens and 14.7%



in the ebtedayee madrasas. Furthermore, in the newly nationalized schools, 8.1% of the students dropped from grade I to II and 7% during grade V. Proportion of students reduced at every higher levels in the kindergartens and the ebtedayee madrasas. Overall, the survival rate at grade V and the cycle completion rate were 70.3% and 63.3%, respectively in the newly nationalized primary schools, 60.2% and 51.7%, respectively in the kindergartens, and 46.1% and 36.8%, respectively in the ebtedayee madrasas. Survival and completion rates for each type of school by residence is provided in Annex 7.2.



Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

Trends in survival and completion rates in various survey years are provided in Figure 7.3. It shows that both the rates increased from 1998 to 2000 but declined in 2008; the highest rates in both the indicators were found in 2014. A similar trend was observed when data were separately analysed for boys and girls and for rural and urban schools (Annex 7.3).

Cycle dropout rate is the reverse of the cycle completion rate. On average, the cycle dropout rate was found to be 20.8% in 2014. It was 27.6% among the boys and 14.1% among the girls. The dropout rate was 20.3% among the students of rural areas and 22.9% among those of urban areas. School type-wise analysis shows that the cycle dropout rate was highest among the students of ebtedayee madrasas (63.2%) followed respectively by those of the kindergartens (48.3%) and the newly nationalized primary schools (36.7%). It was the lowest among the students of the non-formal primary schools (13.2%). A slightly higher rate was observed among the students of the government primary schools (13.7%).

### C. Coefficient of efficiency

Coefficient of efficiency is a composite measure for internal efficiency of an education institution. For primary education, it is a *ratio of expected pupils years required to complete the full cycle of primary education by the graduates and total years actually spent to produce those graduates expressed in percentage term*. The ideal number of this coefficient is 100. This number can be achieved if there is no repetition or dropout during the cycle and all students get promotion smoothly every year. In other words, the students who enrol in grade I, all of them complete the full cycle of primary education in due course after five years.

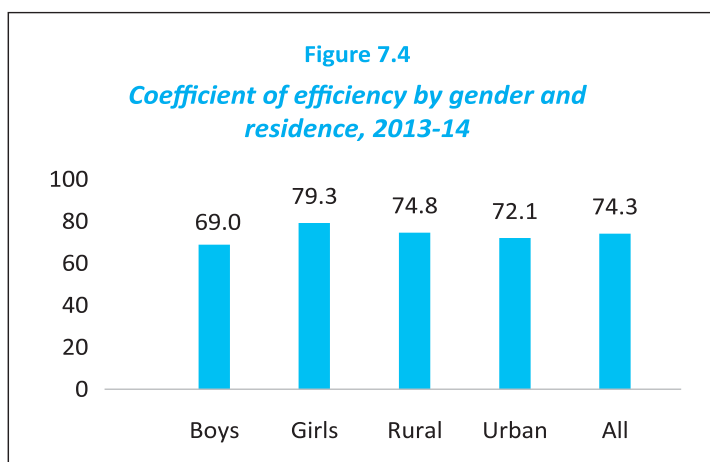
Before going to the discussion on coefficient of efficiency, let's take a look at *pupil years invested per graduate* which is the basis for this section's analysis. In 2014, on average, 6.7 pupil years were invested to produce a graduate; 7.2 years for the boys and 6.3 years for the girls. It was 6.7 years for the rural students and 6.9 years for the urban students. School type-wise variation was also observed in this. Non-formal primary schools, on average, took 5.6 years to produce a graduate and the government primary school took 6.5 years. The ebtedayee madrasas took the highest duration to produce a graduate (10.4 years) followed by the kindergartens (8.2 years) and the newly nationalized primary schools (7.5 years) (Annex 7.5).

On the whole, the coefficient of efficiency was found 74.3% compared to the ideal number of 100 for the primary education provisions in the country (Figure 7.4). The coefficient was higher among the girls than the boys (79.3% vs. 69%). Overall, the rural schools were more efficient than the urban schools; the coefficients were 74.8% and 72.1%, respectively.

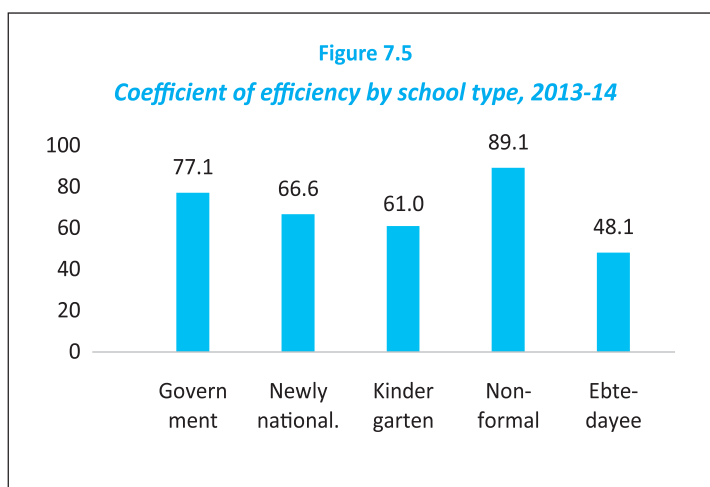
Similar to other indicators, the coefficient of efficiency varied by school type (Figure 7.5). It was highest for the non-formal primary schools and lowest for the ebtedayee madrasas. The coefficients were 89.1% and 48.1%, respectively for these two types of schools. A huge gap between these two types was observed – 41 percentage points. The coefficient of efficiency was 77.1% for the government primary schools, 66.6% for the newly nationalized primary schools and 61% for the kindergartens.

Urban-rural gap was observed in the coefficient of efficiency in each type of school (Annex 7.5). The rural government primary schools were more efficient than those located in urban areas (78.2% vs. 72.5%). On the other hand, a reverse result was observed in the case of newly nationalized primary schools and the kindergartens. The urban schools of both types were more efficient than their respective rural counterparts. The coefficient was mostly equal for rural and urban non-formal primary schools.

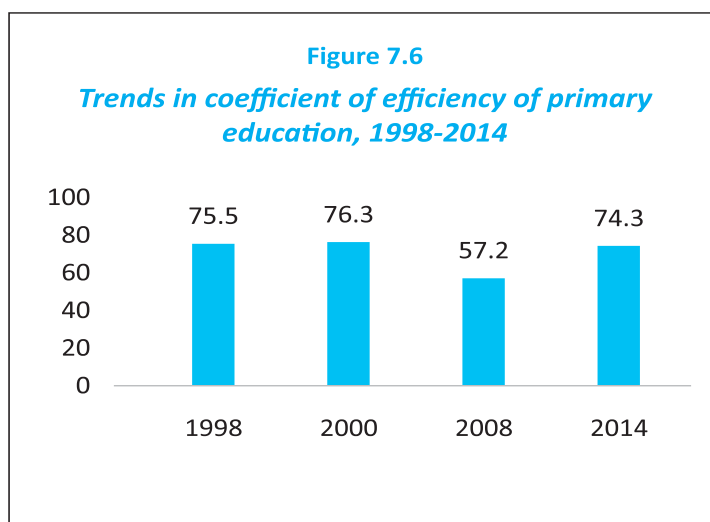
Of the four survey years, the coefficient of efficiency of primary education was found mostly equal in three, viz., the first two and the last one (Figure 7.6). The coefficient was 75.5% in 1998, 76.3% in 2000 and 74.3% in 2014. A drop in the coefficient of efficiency was observed in 2008, for reasons not quite clear from this investigation.



Source: Education Watch Educational Institution Survey, 2014



Source: Education Watch Educational Institution Survey, 2014



Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

## D. Summary findings

Internal efficiency of primary education system, an *output* indicator, was explored through creating a *synthetic* cohort of student. The estimates included promotion, dropout and repetition rates, survival up to grade V, completion of primary education, and coefficient of efficiency.

- Consolidating the five grades together, the promotion rate was 86.5% in 1998 which increased to 87% in 2000 and then decreased to 77.6% in 2008 and again increased to 92% in 2014. The promotion rate was higher among the girls than the boys but not much variation was observed between rural and urban schools.
- During 2013-14, among those who enrolled in grade I, 86.8% survived up to grade V and 79.2% graduated (completed primary education). This latter figure means that 20% children drop out before completing the primary cycle. The completion rate was 72.4% for boys and 85.6% for girls; and 79.7% for rural and 77.1% for urban students. This varied widely for different types of schools – 86.3% for government schools, 86.8% for non-formal schools, 63.3% for newly nationalized schools, 51.7% for kindergartens and 36.8% for ebte dayee madrasas.
- The coefficient of efficiency of primary education was 74.3% in 2013-14. It was 69% for boys and 79.3% for girls; and 74.8% for rural and 72.1% for urban students. School type-wise, it was 89.1% for non-formal schools, 77.1% for government schools, 66.6% for newly nationalized schools, 61% for kindergartens and 48.1% for ebte dayee madrasas.
- The rural government primary schools were more efficient than those in urban areas. An opposite scenario was observed in newly nationalized primary schools and in kindergartens. A higher and equal level of efficiency was noticed in the non-formal schools of both rural and urban areas.
- Of the four survey years, the coefficient of efficiency of primary education was found similar in three of the years, viz., the first two and the last one. The coefficient was 75.5% in 1998, 76.3% in 2000 and 74.3% in 2014. A drop in the coefficient of efficiency was observed in 2008, the reason for which is not entirely clear.



# Chapter 8

## Competencies Achievement by Fifth Graders



Learning achievement of the students is presented in this chapter. This is one of the immediate outputs from education system in the quality assessment framework. *Education Watch* developed a test instrument which was administered twice in 2000 and 2008. The instrument, administered on grade V students, measures 27 competencies through 64 items. Along with thorough analysis of the test data of 2014, this chapter presents trends in learning achievement over the past 14 years. Nature of the question items against each of the competencies and the minimum level of skills needed to qualify for each of them are provided in Annexes 8.1 to 8.6. More details on the test is available in Chapter 2.

## A. Average achievement

In 2014, number of competencies achieved by each student varied from 4–27 with a mean 20.1 and median 21. Only 2% of the students achieved less than 10 competencies, 28.7% of them achieved 10–18 competencies and 69.3% achieved 19 or more competencies. Analysis of quartiles shows that a quarter of the students achieved 18 or less number of competencies, another quarter achieved 19–21 competencies, the third quarter achieved 22–23 competencies and the fourth quarter achieved 24 or more competencies. Quintile distribution of the number of competencies achieved shows that the first quintile (20%) of the students achieved 17 or less number of competencies, the second quintile of them achieved 18–20 competencies, the third quintile of them achieved 21–22 competencies, the fourth quintile of them achieved 23–24 competencies and the fifth quintile of them achieved 25 or more competencies. Annexes 8.7 and 8.8 presents distribution of students by number of competencies achieved, school type, residence and gender.

Only 1.6% of the students achieved all 27 competencies under test. This was 1.4% among the boys and 1.9% among the girls, and 1.1% among the rural students and 4.2% among the urban students. School type-wise analysis shows that 1.6% of the government school students, 0.3% of the newly nationalized school students and 5.9% of the kindergarten students achieved all 27 competencies. Such a performance was not done by any of the students of non-formal primary schools or the ebtedayee madrasas.

Of the 27 competencies under test, the assessed students, on average, achieved 20.1 competencies in 2014 (Table 8.1). In other words, the students achieved 74.4% of the competencies under assessment. The achievement of the girls was significantly higher than the boys (19.9 vs. 20.3;  $p < 0.001$ ). Also, the students of urban schools significantly surpassed their rural counterparts (21.6 vs. 19.8;  $p < 0.001$ ). The rural students achieved 73.3% of the competencies and the urban students 80%. Gender-wise separate analyses for the students of rural and urban schools show that, although no gender difference was observed in urban schools, the girls of rural schools significantly surpassed the boys (Table 8.1).

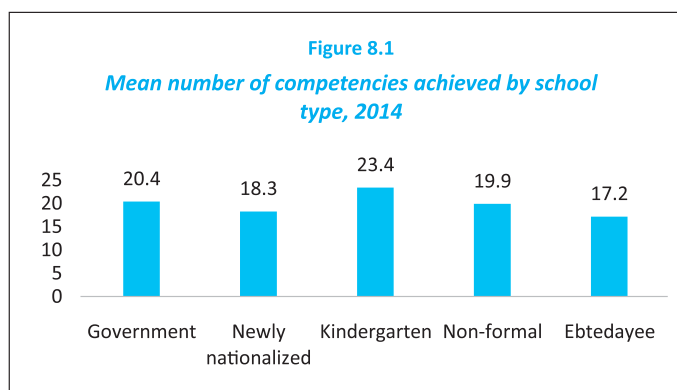
Statistically significant variation by school type was observed in the students' achievement of competencies ( $p < 0.001$ ). Of the five types of educational institutions brought under assessment in 2014, the highest performance was found among the students of the kindergartens and the lowest among those of the ebtedayee madrasas (Figure 8.1). The average number of

**Table 8.1**  
*Mean number of competencies achieved by residence and gender, 2014*

Residence	Gender		All	Level of significance
	Boys	Girls		
Rural	19.6	20.1	19.8	$p < 0.01$
Urban	21.7	21.5	21.6	ns
All	19.9	20.3	20.1	$p < 0.001$
Level of significance	$p < 0.001$	$p < 0.001$	$p < 0.001$	

Source: Education Watch Competencies Achievement Test, 2014

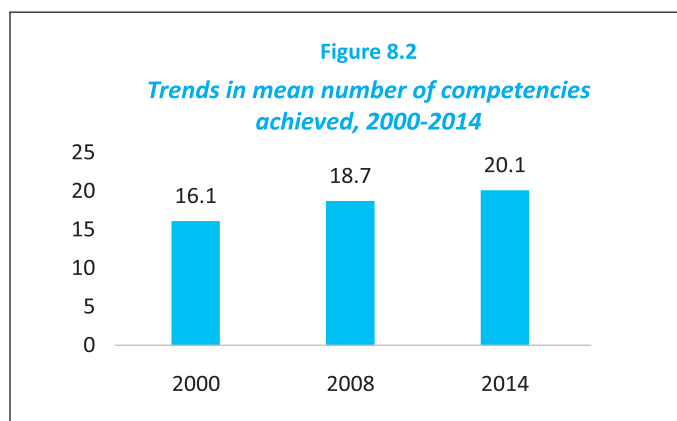
competencies achievement of the students of these institutions was 23.4 and 17.2, respectively. Among others, the government primary school students achieved 20.4 competencies, the non-formal primary school students 19.9 and the newly nationalized primary school students 18.3. The kindergarten students achieved 86.7% of the 27 competencies, the government primary school students achieved 75.6%, the non-formal primary school students achieved 73.7%, the newly nationalized primary school students achieved 67.8% and the ebtedayee madrasa students achieved 63.7% of the competencies under test.



Source: Education Watch Competencies Achievement Test, 2014

Statistically significant gender difference in achievement of competencies was found in two types of schools, viz., the government primary schools and the kindergartens (Annex 8.9). In both, the girls surpassed the boys. Residence-wise variation was observed in three types of schools, viz., government, newly nationalized, and non-formal primary schools (Annex 8.10). The urban students outperformed the rural students in the first two types of schools but an opposite direction was observed in the third type.

Figure 8.2 shows that average achievement of competencies significantly increased over time – from 16.1 in 2000 to 18.7 in 2008 and 20.1 in 2014 ( $p < 0.001$ ). The rate of increase was about a third of a competency per year or one competency by three years. In other words, students achieved 59.6% of 27 competencies in 1998, which increased to 69.3% in 2008 and 74.4% in 2014. Increase was recorded one percentage point per year.



Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

Table 8.2 presents mean, median, standard deviation and coefficient of variation of the number of competencies achieved by the students in each of the test years. It shows steady increase in the mean number of competencies achieved as well as the median and gradual decrease of standard deviation. As a result, coefficient of variation also decreased over time. This indicates a decreasing trend in student to student variation in learning achievement which is a sign of gradual homogeneity in students' performance.

**Table 8.2**  
*Some basic statistics on students' achievement of competencies by year, 2000-2014*

Test year	Mean	Standard deviation	Median	Coefficient of variation
2000	16.1	6.0	16.0	37.3
2008	18.7	4.7	20.0	25.1
2014	20.1	4.3	21.0	21.4

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

Of the three test years, the boys significantly outperformed the girls in the first two and an opposite scenario was observed in the third (Table 8.3). Both boys and girls improved almost equally during 2000–2008 but improvement of the girls was more pronounced than the boys during 2008–2014. The boys achieved 2.6 more competencies in 2008 than 2000 and the girls achieved 2.7 more competencies over the same period. On the other hand, from 2008 to 2014, the boys achieved 0.5 additional competencies compared to the girls who achieved 3.4 additional competencies. Overall, improvement of the girls was almost double of the boys. The boys gained 3.1 more competencies over 14 years and the girls gained 6.1 more competencies.

The urban students significantly outperformed their rural counterparts in all three test years (Table 8.3). The difference between the areas was 3.8 competencies in 2000 which reduced to 1.7 in 2008 and 1.8 in 2014. Over the period of 14 years, the rural students achieved 4.5 additional competencies and the urban students achieved 2.5 additional competencies. Overall, the improvement over the 14 years was the most among the rural girls (5.3 competencies) followed by rural boys (3.6 competencies), urban girls (2.8 competencies) and urban boys (2.2 competencies).

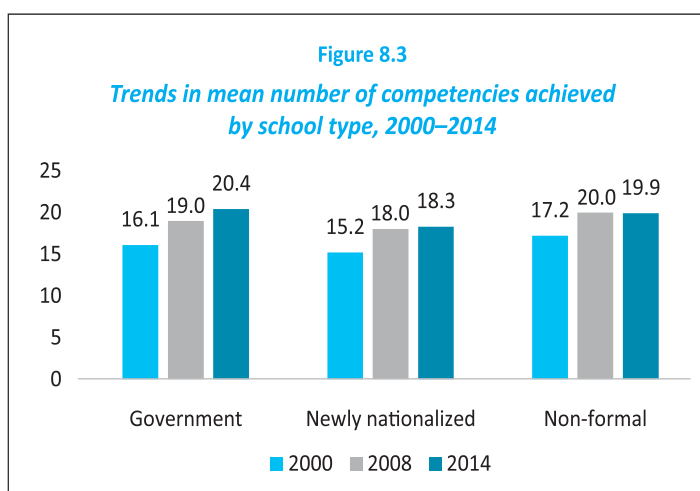
Let us now take a look at the performance of the three types of schools which were common in all three test years. The types included: government primary schools, newly nationalized primary schools and the non-formal primary schools. Over 14 years, the government primary schools on average achieved 4.3 more competencies, the newly nationalized schools 3.1 competencies and the non-formal schools gained 2.7 competencies (Figure 8.3). Statistically significant improvement was observed in each of the three types of schools during 2000–2008. However, the improvement was statistically significant

only for the government schools during 2008–2014 but no difference in other two types of school. During this period (2008–2014), performance of the ebtedayee madrasa students also improved significantly; they gained two more competencies (Annex 8.11). Change in competencies achieved by the students of kindergartens could not be detected because they were brought under test in 2014 only.

**Table 8.3**  
*Trends in mean number of competencies achievement students by gender and residence, 2000–2014*

Student groups	Years			Level of significance
	2000	2008	2014	
<i>Gender</i>				
Boys	16.7	19.3	19.8	p<0.001
Girls	15.5	18.2	21.6	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
<i>Residence</i>				
Rural	15.3	18.4	19.8	p<0.001
Urban	19.1	20.1	21.6	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All	16.1	18.7	20.1	p<0.001

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014



Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014



Residence and gender-wise analyses are provided in Annexes 8.12 and 8.13. Residence-wise analysis shows that the highest gain over the 14 years was recorded for the rural government schools followed by the newly nationalized rural primary schools. The improvement was 4.7 and 4.1 competencies, respectively. Gender-wise analysis shows that the improvement was highest among the girls of the government primary schools (5.7 competencies) followed by the boys of the similar institutions (4 competencies).

## B. Subject-wise achievement

Mean is not a good statistic to compare the students learning achievement in different subjects because number of competencies varied from one subject to another. A better way of comparison is to transform their mean achievement into percentage form. Subject-wise analysis shows that the fifth graders of 2014, on average, did best in Primary Science (83.3%) followed by Bangladesh & Global studies (78.7%), Bangla (73.7%), Mathematics (69.2%) and English (62.0%) (Table 8.4 and Annex 8.14). Difference between the highest and lowest performing subjects was 21.3 percentage points. No change in the chronology of the subjects in terms of students' performance was observed when data were analysed by gender or residence. Difference between the highest and the lowest performing subjects was 21 percentage points or more for each of the four groups of students. Although the girls performed better than the boys in Bangla, English, Bangladesh & Global Studies, and Primary Science; the boys performed better than the girls in Mathematics. Otherwise, the students of urban schools outperformed their rural counterparts in each of the five subjects. For more analysis on this see Annex 8.15.

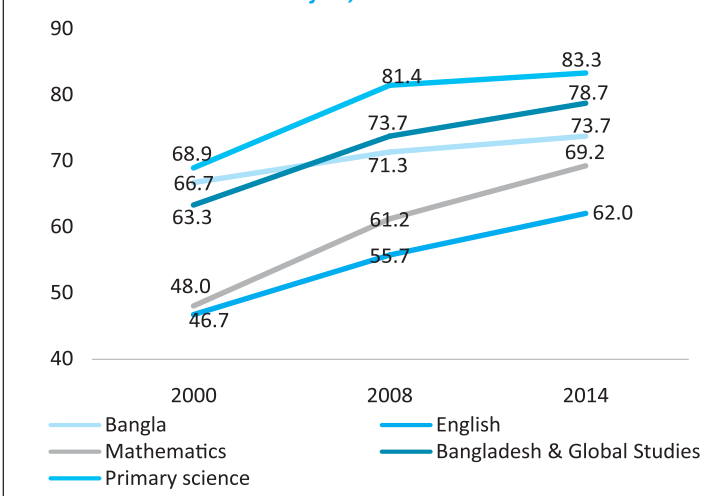
Similar to the aggregate level, the students' of each of the five types of schools showed their best performance in Primary Science and worst in English (Annex 8.16). Again, the students of the kindergartens did best and the students of the ebtedayee madrasas did worst in each of the subjects. Kindergarten students achieved 87–91% of the competencies in Primary Science, Bangladesh & Global Studies, Mathematics and Bangla, and 71% of the competencies in English. Otherwise, ebtedayee madrasa students' performances in various subjects varied

**Table 8.4**  
*Percentage of competencies achieved by subject, gender and residence, 2014*

Subjects	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Bangla	70.7	76.3	72.3	80.0	73.7
English	61.0	63.0	61.0	66.0	62.0
Mathematics	70.6	67.6	68.0	75.2	69.2
Bangladesh & Global Studies	78.0	79.2	77.5	83.8	78.7
Primary Science	82.6	84.0	82.6	87.0	83.3
All	73.8	75.2	73.4	79.9	74.5

Source: Education Watch Competencies Achievement Test, 2014

**Figure 8.4**  
*Trends in percentage of competencies achieved by subject, 2000-2014*



Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

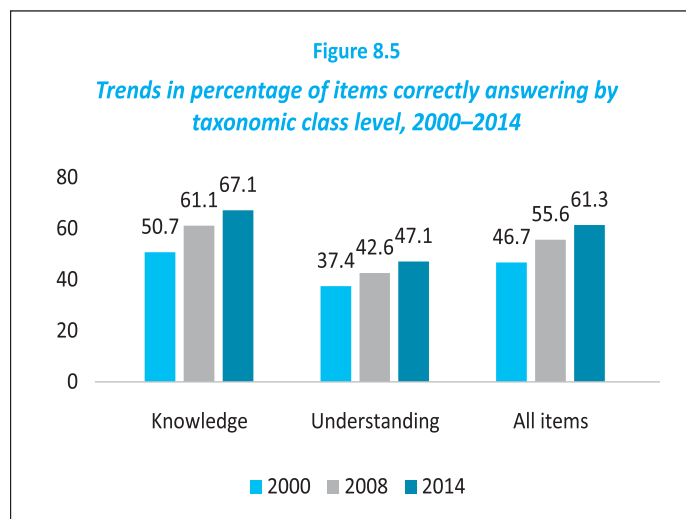
from 52–77%. Chronology of the schools in terms the performance of their students was found similar in each of the subjects which also coincides with the school type-wise chronology at the aggregate level.

Figure 8.4 shows that the fifth graders performance increased over time in each of the subjects under the test. Performance in Mathematics increased the most– from 48% in 2000 to 69.2% in 2014; an increase of 21.2 percentage points. This was followed by English and Bangladesh & Global studies – increase was similar in both; over 15 percentage points. Least increase was recorded in Bangla – only seven percentage points (from 66.7% in 2000 to 73.7% in 2014. Chronology of the subjects in terms of students' performance was similar in 2008 and 2014. Students showed better in Bangla than Bangladesh & Global Studies in 2000 which later interchanged. However, position of other subjects was similar in each of the test years.

### C. Performance by taxonomic class level

Of the 64 items under test, 45 fall under 'knowledge' domain and 19 under 'understanding' domain (comprehension 6, application 7, analysis 3 and synthesis 3). An attempt was made to analyse the students' performance according to the above two broad classification. In 2014, of the 45 items of 'knowledge' level the students on average provided correct answers to 30.2 items and out of 19 'understanding' level items they were successful in nine items (Annex 8.17). Both the figures increased over time meaning that learning achievement of the fifth graders in Bangladesh gradually increased in both 'knowledge' and 'understanding' domain. This can better be communicated if the means are transformed into percentage form, i.e., percentage of knowledge/understanding level items correctly answered by the students. Figure 8.5 provides the increasing trends in both domains in percentage form.

It should be noted that in all three test years, the fifth graders performed better in the items falling in the 'knowledge' domain than those falling in 'understanding' domain. Again, the gap between them has increased over time – 13.3 percentage points in 2000 to 18.5 percentage points in 2008 and 20.1 percentage points in 2014. This means that students' progress in the 'knowledge' domain items were faster than that in the 'understanding' domain. Over 14 years, performance of students' increased 16.4 percentage points in 'knowledge' domain items and 9.7 percentage points in 'understanding' domain items.



Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

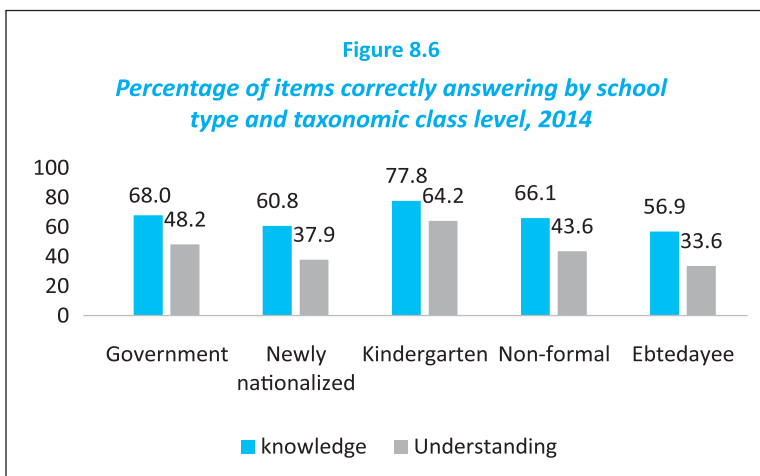
The girls surpassed the boys in both the domains not only in 2014; they also progressed more than the boys in both domains (Annex 8.18). For instance, in 2014, the girls achieved 67.8% of 'knowledge' level and 47.4% of 'understanding' level items. These figures were respectively 66.4% and 46.8% for the boys. Whereas, the girls improved 14 percentage points in the items of 'knowledge' domain and 7.9 percentage points in the items of 'understanding' domain over the period; the boys' progress was respectively 10.2 and 5.2 percentage points.

Although the urban students showed better performance than the rural students in both domains in each of the test years, the progress over time was higher among the rural students than their urban counterparts

(Annex 8.19). The rural school students' performance increased 18.2 percentage points in 'knowledge' level items and 10 percentage points in 'understanding' level items. These figures were respectively 10.3 and 9.5 percentage points for the urban students.

School type-wise analysis shows that the students of each of the five types of schools did better in the items falling under 'knowledge' domain than those falling under 'understanding' domain in 2014 (Figure 8.6). In both the domains, the kindergartens did the best followed by the government schools, non-formal schools, newly nationalized schools and the ebtedayee madrasas, respectively. Performance gap between the two domains was much higher in three types of schools, viz., ebtedayee madrasa, newly nationalized primary schools and the non-formal primary schools (22–23 percentage points). This gap was slightly lower in the case of government primary schools (19.8 percentage points) and much lower in kindergartens (13.6 percentage points).

Of the three common school types, highest progress was recorded in the government primary schools – 17.6 percentage points in 'knowledge' domain and 11.6 percentage points in 'understanding' domain (Annex 8.20). Progress was respectively 15.3 and 4.7 percentage points for newly nationalized primary schools. Least progress was noticed in the non-formal primary schools. Progress of this school type was 4.4 percentage points in 'knowledge' domain and 'nil' in 'understanding' domain.



Source: Education Watch Competencies Achievement Test, 2014

#### D. Classification of competencies

Percentage of students achieving each of the 27 competencies and their breakdown by gender, residence and school type are provided in Annexes 8.21 and 8.22. More than 90% of the students achieved six competencies and more than 80% of the students achieved 17 competencies. Otherwise, one competency was achieved by less than 10% of the students. Statistically significant gender difference was observed in 12 competencies. The girls surpassed the boys in nine of them and the boys did better than girls in the rest. Surprisingly, each of these three are on Mathematics. Urban-rural difference was statistically significant in 25 competencies. The urban students surpassed their rural counterparts in each of them. Statistically significant variation by school type was also observed in each of the 27 competencies under test.

Let us now categorize the competencies according to the performance of the students. The categories are: *very difficult*, *difficult*, *easy* and *very easy*. Following are the definitions.

- **Very difficult:** If less than 40% of the students attained a particular competency (the level of achievement is 'poor')
- **Difficult:** If 40–59.9% of the students attained a particular competency (the level of achievement is 'moderate')

- Easy: If 60–79.9% of the students attained a particular competency (the level of achievement is ‘satisfactory’)
- Very easy: If 80% or more of the students attained a particular competency (the level of achievement is ‘excellent’)

Table 8.5 provides frequency distribution of the competencies according to the above classification. Overall, the students showed ‘excellent’ performance in 17 competencies, ‘satisfactory’ in three, ‘moderate’ in five and ‘poor’ in two. List of the competencies according to this classification is provided in Table 8.6. The boys showed ‘excellent’ performance in 15 competencies and the girls in 17 (Table 8.5). The rural students did so in 16 competencies and the urban students in 18. Students of all four groups showed ‘poor’ performance in ‘writing in English’. In addition, the boys and rural students did poorly in the competency on Religion & Moral Education.

School type-wise distribution of competencies shows that the students of kindergartens did ‘excellent’ in 21 competencies, government and non-formal schools did so in 17 each, newly nationalized primary schools in 12 and the ebtedayee madrasas in nine (Table 8.7). Adding the ‘satisfactory’ level with this, it was observed that kindergarten students showed ‘satisfactory’ or

**Table 8.5**  
*Frequency distribution of number of competencies by level of achievement and school type, 2014*

Level of achievement	Difficulty level	Gender		Residence		All
		Boys	Girls	Rural	Urban	
Poor	Very difficult	2	1	2	1	2
Moderate	Difficult	5	7	5	2	5
Satisfactory	Easy	5	2	4	6	3
Excellent	Very easy	15	17	16	18	17

Source: Education Watch Competencies Achievement Test, 2014

**Table 8.6**  
*Classification of competencies according to the level of performance, 2014*

Level of performance	Competencies	Difficulty level
Poor	1. Writing skills in English	Very difficult
	2. Life sketch of prophet Mohammed (SM) or the preachers of own religion	
Mediocre	1. Writing skills in Bangla	Difficult
	2. Word problem solving in mathematics	
	3. Knowing about the country	
	4. Knowing about the children of other countries	
	5. Knowing preventive measures of common diseases	
Satisfactory	1. Skills on four basic arithmetical operations	Easy
	2. Skills on measurement units	
	3. Scientific investigation skills	
Excellent	1. Reading skills in Bangla	Very easy
	2. Listening skills in Bangla	
	3. Reading skills in English	
	4. Listening skills in English	
	5. Basic number skills	
	6. Identification of geometric figures	
	7. Knowing the duties as family members	
	8. Knowing the duties as member of society	
	9. Knowing the duties as citizens of Bangladesh	
	10. Manners with persons of various relationships	
	11. Knowing the importance of good health	
	12. Knowing about environment and health systems	
	13. Knowing about the importance balanced diet	
	14. Information collection ability	
	15. Observation skills on natural objects	
	16. Identification of cause and effect relationship	
	17. Science and technology in everyday life	

Source: Education Watch Competencies Achievement Test, 2014

‘excellent’ performance in 26 of the 27 competencies. Such a performance was found in no other type of school. Students of each type of school did poorly in ‘writing in English’. Poor performance was also found in the competency on Religion & Moral Education in four types of school except kindergarten. The other two competencies in which the newly nationalized primary schools and the ebte-dayee madrasas showed ‘poor’ performance are ‘writing in Bangla’ and ‘word problem solving in mathematics’. These two types of school did poorly in four competencies each. Nine competencies were identified in which the students of all five types of schools showed ‘excellent’ performance. Box 8.1 provides the list of ‘excellent’ performing competencies.

In 2000, students showed excellent performance only in three competencies which increased to 12 in 2008 and 17 in 2014 (Table 8.8). Adding the ‘satisfactory’ level competencies with these it can be said that in 2000, the students had ‘satisfactory’ or ‘excellent’ performance in 15 competencies which increased to 19 in 2008 and 20 in 2014. On the other hand, number of ‘poor’ performing competencies reduced from three in 2000 and 2008 to two in 2014. Students performed poorly in two competencies in all three test years. These are: writing in English and life sketch of Prophet Mohammad (SM) or the preachers of own religion. Students’ also did poorly in ‘word problem solving in mathematics’ in the first two test years but they showed ‘moderate’ performance in this competency in 2014. This means that these three competencies were relatively harder.

### E. Socio-economic correlates of achievement of competencies

We present below students’ achievement of competencies cross-tabulated by their socio-economic characteristics. The characteristics include parental education, household food security status, religion, and electricity availability at home.

In 2014, mean number of competencies achieved by the students’ significantly increased with the increase of their parental education. For instance, students’ on average achieved 19.2 competencies if their mothers

Table 8.7

*Frequency distribution of number of competencies by level of achievement and school type, 2014*

Level of achievement	Difficulty level	School types				
		Govern-ment	Newly nation.	Kinder-garten	Non-formal	Ebte-dayee
Poor	Very difficult	2	4	1	2	4
Moderate	Difficult	5	5	0	6	4
Satisfactory	Easy	3	6	5	2	10
Excellent	Very easy	17	12	21	17	9

Source: Education Watch Competencies Achievement Test, 2014

#### Box 8.1

**Competencies in which the students of all five types of schools showed ‘excellent’ performance in 2014**

1. Listening skills in Bangla
2. Listening skills in English
3. Basic number skills
4. Knowing the duties as member of society
5. Manners with persons of various relationships
6. Knowing the importance of good health
7. Knowing about environment and health systems
8. Information collection ability
9. Observation skills on natural objects

Source: Education Watch Competencies Achievement Test, 2014

Table 8.8

*Frequency distribution of number of competencies by level of achievement and year, 2000–2014*

Level of achievement	Difficulty level	Years		
		2000	2008	2014
Poor	Very difficult	3	3	2
Moderate	Difficult	9	5	5
Satisfactory	Easy	12	7	3
Excellent	Very easy	3	12	17

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

had no schooling, they achieved 19.4 competencies if the mothers had 1–4 years of schooling, 20.1 competencies if mothers had 5–9 years of schooling and 22.5 competencies if the mothers had 10 years or more schooling ( $p < 0.001$ ) (Annex 8.23). For similar levels of fathers education these figures were 19.2, 19, 20.2 and 23.1, respectively ( $p < 0.001$ ) (Annex 8.24).

Household food security status was also positively linked to the mean number of competencies achieved. Students from *always in deficit* households on average achieved 19 competencies, *sometimes in deficit* households achieved 19.6 competencies, *breakeven* households achieved 20 competencies and surplus households achieved 20.8 competencies ( $p < 0.001$ ) (Annex 8.25). Students achieved more competencies if they had electricity available at home than those had no such facility. Mean number of competencies achieved by the students of these two groups of students were 20.1 and 17.9 respectively ( $p < 0.001$ ) (Annex 8.26). Students of both Muslim and non-Muslim households achieved equally (Annex 8.27).

Gender and residence-wise analyses were performed in all the above cases. For each, the results were similar to the aggregated level. Greater urban-rural difference than gender-wise difference was also noticed here.

## F. Summary findings

Students of grade V were assessed through a competency-based learning achievement test developed by the *Education Watch Group*. This is an important *output* indicator, also may be described as learning outcome or student outcome, for assessing quality of education. Taxonomic domains and subject-wise analyses were also done.

- In 2014, of the 27 competencies selected for testing from the grade V terminal competencies indicated in the primary curriculum, the fifth graders, on average, achieved 20.1 of the competencies in 2014. This number was 23.4 for the students of kindergartens, 20.4 for those of the government schools, 19.9 for those of the non-formal schools, 18.3 for those of the newly nationalized schools and 17.2 in the ebtedayee madrasas. Girls surpassed the boys and urban students did better than rural students.
- The mean number of competencies achieved by the students increased over time – from 16.1 competencies in 2000 to 18.7 in 2008 and 20.1 in 2014. The boys outperformed the girls in the first two tests but an opposite result was observed in the latest test. On the other hand, the urban students outperformed their rural counterparts in all three tests. A sharp increase in test results was noticed among the students of government primary schools during the three surveys. The students of newly nationalized and non-formal schools did significantly better from 2000 to 2008, but showed no significant difference between 2008 and 2014.
- On average, the students achieved 74.5% of the competencies in the 2014 test. It was 83.3% in Primary Science, 78.7% in Bangladesh & Global Studies, 73.7% in Bangla, 69.2% in Mathematics and 62% in English. Students' performance increased in all five subjects over time. The highest increase was recorded in Mathematics (21.2 percentage points) followed by English and Bangladesh & Global Studies (over 15 percentage points in each). The least increase was recorded in Bangla (7 percentage points).
- Although the students' performance increased in both 'knowledge' and 'understanding' domains, the rate of increase was faster in the 'knowledge' domain than in the 'understanding' domain. Students performed much better in 'knowledge' domain than in 'understanding' domain in all three tests.
- Strong positive correlation between students' performance and their socioeconomic background was observed in each of the tests. As expected, students' performance improved with the increase of parental schooling and household food security status.







## Chapter 9

# Education and Literacy of Population





Education impacts on human life in many different ways. Such impacts happen not only on the individual, but also on society at large. Some individual impacts are immediate; for instance, achievement of competencies at the end of primary education. The share of literate persons in a society and the mean length of schooling of population are examples of direct impact of schooling on society. Previous chapters showed improvement of primary education in the country; some immediate results like completion of primary education and learning achievement of young people were described. This chapter looks at the education and literacy status of the population at large, which is a major outcome of primary education, as well as the trends in this respect.

## A. Schooling of the population

It is obvious that initiatives for school enrolment of children and their completion of primary or further education would improve the educational status of the population. To understand trends in education of the population four indicators were considered: *percentage of ever schooled population*; and *percentages of population completing primary, junior secondary and secondary education*. The following are the definitions:

- *Ever schooled population*: Percentage of population having at least one year of schooling of any form among those aged six years or more.
- *Primary education completer*: Percentage of population completing the full cycle of primary education (five years) in any recognized institution among those aged 11 years or more.
- *Junior secondary education completer*: Percentage of population completing the full cycle of primary education as well as the first three grades of secondary education (total 8 years) in any recognized institution among those aged 14 years or more.
- *Secondary education completer*: Percentage of population completing the full cycle of primary and secondary education (total 10 years) in any recognized institution among those aged 16 years or more.

In 2013, 72.1% of the population aged six years or more had at least one year of schooling (Table 9.1). The females surpassed the males (73.8% vs. 70.8%;  $p<0.001$ ) and the urban population was ahead of the rural population (81.5% vs. 70%;  $p<0.001$ ). Among the population aged 11 years or above, 54.9% completed the full course of primary education and the males surpassed the females (56.3% vs. 53.6%;  $p<0.001$ ). So did the urban population in completing primary education (71.2% vs. 51.3%;  $p<0.001$ ) (Table 9.3). The higher educational attainment of the 6+ population and their female edge are clearly the results of massive primary education expansion.

**Table 9.1**  
*Percentage of population of various age groups completing various levels of education by gender and residence, 2013*

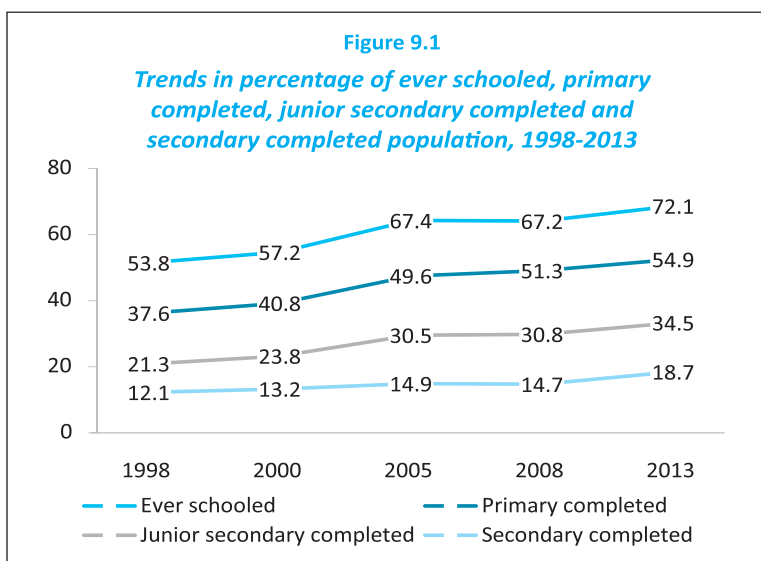
Gender and residence	Indicators			
	Even schooled	Primary completer	Junior secondary completer	Secondary completer
<i>Gender</i>				
Males	73.8	56.3	37.6	22.8
Females	70.4	53.6	31.5	14.9
Significance	$p<0.001$	$p<0.001$	$p<0.001$	$p<0.001$
<i>Residence</i>				
Rural	70.0	51.3	30.2	15.0
Urban	81.5	71.2	53.5	35.0
Significance	$p<0.001$	$p<0.001$	$p<0.001$	$p<0.001$
All	72.1	54.9	34.5	18.7

Source: Education Watch Household Survey, 2013

Percentage of population completing junior secondary education (among aged 14 years or more) and percentage of population completing secondary education (among aged 16 years or more) were 34.5 and 18.7% respectively (Table 9.1). Males were significantly ahead of the females in both and the urban population surpassed their rural counterparts.

The gender gap as well as the urban-rural gap increased with the indicators considering higher level of education. Again, the gender gap was much less than the urban-rural gap in each of the indicators. Gender gap was 3.4 percentage points in the case of ever schooled population which increased to 7.9 percentage points for secondary school completers. Urban-rural gap was 11.5 percentage points for ever schooled population which was about 20% or more for other three indicators.

Percentage of population ever schooled, and those who completed primary, junior secondary and secondary education increased in Bangladesh over the past 15 years (Figure 9.1). Among the population aged six years or above, 53.8% completed at least one year of schooling in 1998 which reached 72.1% in 2013 – an increase of 18.3 percentage points. Among the population aged 11 years or above, 37.6% completed the full course of primary education in 1998 which increased to 54.9% in 2013 – an improvement of 17.3 percentage points over 15 years. Percentage of population aged 14 years or above completing junior secondary education and population aged 16 years or above completing secondary education were 21.3% and 12.1%, respectively in 1998. Both the figures increased over time and reached 34.5% and 18.7%, respectively in 2013. Improvement occurred 13.2 percentage points for the former and 6.6 percentage points for the later indicator.



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

**Table 9.2**  
*Trends in percentage of population (6 yrs. +) ever schooled by gender and residence, 1998-2013*

Gender and residence	Years					Increase
	1998	2000	2005	2008	2013	
Gender						
Males	57.9	61.4	70.2	69.5	73.8	15.9
Females	49.6	58.0	64.6	64.9	70.4	20.8
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
Residence						
Rural	51.0	54.5	65.3	65.3	70.0	19.0
Urban	68.6	71.6	78.8	78.0	81.5	12.9
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
All	53.8	57.2	67.4	67.2	72.1	18.3

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Progress over time occurred much faster in the first two of the four indicators. On average, rate of increase was more than one percentage points in both. It was less than one percentage point in the case of the third indicator and much less (0.44 percentage points) in the case of the fourth indicator. Improvement, in the first three indicators, was much higher during 1998–2005 than during 2008–2013. However, an opposite result was observed in the case of the fourth indicator.



Trend analysis of the above type was performed separately for males and females and for rural and urban population (Tables 9.2 to 9.5). The findings are summarized below.

- In each indicator, improvement has occurred more among the females than males. Again, improvement for the rural population was more than that for the urban population.
- Statistically significant gender difference persisted in all four indicators throughout the period (1998–2013). Males were ahead of the females in each of the cases.
- Urban population significantly surpassed their rural counterparts throughout the period (1998–2013) in all four indicators.

Educational qualification of the adult population (aged 15 years or above) was analysed separately and presented in Table 9.6. In 1998, about half of the adult population in Bangladesh had not a single year of schooling but this came down to about a third in 2013. This means that over two-thirds of the adults had at least one year of schooling in 2013. Rate of adults completing primary education also increased from 37.8% in 1998 to 54.4% in 2013. Similar trends were also seen in terms of percentage of adults completing junior secondary,

Table 9.3

*Trends in percentage of population (11 yrs. +) completed primary education by gender and residence, 1998–2013*

Gender and residence	Years					Increase
	1998	2000	2005	2008	2013	
Gender						
Males	42.2	44.8	52.6	53.1	56.3	14.1
Females	32.9	36.6	46.5	49.5	53.6	20.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
Residence						
Rural	33.6	37.0	46.2	48.1	51.3	17.7
Urban	57.1	59.3	67.1	68.4	71.2	14.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
All	37.6	40.8	49.6	51.3	54.9	17.3

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Table 9.4

*Trends in percentage of population (14 yrs. +) completed junior secondary education by gender and residence, 1998–2013*

Gender and residence	Years					Increase
	1998	2000	2005	2008	2013	
Gender						
Males	26.8	29.1	35.2	34.1	37.6	10.8
Females	15.5	18.4	25.9	27.5	31.5	16.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
Residence						
Rural	17.1	19.9	26.5	27.2	30.2	13.1
Urban	41.7	43.5	50.9	49.7	53.5	11.8
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
All	21.3	23.8	30.5	30.8	34.5	13.2

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Table 9.5

*Trends in percentage of population (16 yrs. +) completed secondary education by gender and residence, 1998–2013*

Gender and residence	Years					Increase
	1998	2000	2005	2008	2013	
Gender						
Males	16.7	17.9	19.5	18.7	22.8	6.1
Females	7.3	8.4	10.4	10.7	14.9	7.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
Residence						
Rural	8.4	9.6	11.2	11.5	15.0	6.6
Urban	29.5	31.1	33.8	31.4	35.0	5.5
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	
All	12.1	13.2	14.9	14.7	18.7	6.6

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

Table 9.6

*Cumulative percentage distribution of adult population (15y+) by level of education and year*

Level of education	Years					Change 1998-2013
	1998	2000	2005	2008	2013	
Total	100.0	100.0	100.0	100.0	100.0	-
Never schooled	49.8	46.3	36.6	35.7	32.1	-17.7
Ever schooled	50.2	53.7	63.4	64.3	67.9	17.7
Primary completed (V+)	37.8	41.1	49.2	51.7	54.4	16.6
Junior secondary completed (VII+)	21.4	24.0	30.4	31.1	34.6	13.2
Secondary completed (X+)	11.5	12.6	14.2	14.3	18.3	6.8
Higher secondary completed (XII+)	5.8	6.4	7.0	7.0	8.7	2.9
Bachelor degree holder	2.7	3.0	3.2	3.0	3.5	0.8
Masters/MPhil/PhD degree holder	0.7	0.8	1.0	0.9	1.0	0.3

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

secondary or higher secondary education. However, the rate of increase deteriorated with the increase of the level of education. In 2013, 34.6% of the adults had at least eight years of schooling, 18.3% completed secondary and 8.7% completed higher secondary education. Proportion of adults with a Bachelor degree was 3.5%. Only 1% of the adults had Master, MPhil or a PhD degree.

## B. The literacy situation

Self-reported literacy status of population was collected in four household surveys except in 1998. It is a customary method of assessing literacy where household heads report literacy status of all members of households following a prescribed definition. This method is followed in most household-based surveys and national censuses conducted by the Bangladesh Bureau of Statistics (BBS). The same definition was followed in the *Education Watch Household Surveys*. The definition is *ability of reading and writing a communication letter*. If someone is reported as 'able to do so' s/he is considered as literate; otherwise not.

Literacy rates were estimated for the population of three groups based on their age. General trend is to do it for two groups, viz., all population (aged 7 years or above) and adult population (aged 15 years or above). Post-primary aged population (11 years or above) was considered as the third group.

Literacy rate for all population (7 years or above) was found to be 52.7% in 2013. It was 57% for the population aged 11 years or above and 55% for the adult population (15 years or above). Statistically significant gender difference favouring the males was observed in each of them (Table 9.7). Gender difference increased with the increase of age limit. For instance, it was 3.4 percentage points for aged seven years and above, 4.3 percentage points for aged 11 years and above and 6.4 percentage points for adult population.

Statistically significant urban-rural difference was also observed in each of the three literacy estimates (Table 9.8). These differences were much higher than the differences found in terms of gender. The urban

Table 9.7  
*Literacy rate of population by age group and gender, 2013*

Age groups	Gender		Both	Level of significance
	Males	Females		
7+ yrs.	54.4	51.0	52.7	p<0.001
11+ yrs.	59.4	55.1	57.2	p<0.001
15+ yrs.	58.3	51.9	55.0	p<0.001

Source: Education Watch Household Survey, 2013



population surpassed their rural counterparts in each of the three indicators. The gap was 18.8 percentage points for the population aged seven years and above, 18 percentage points for the population 11 years and above and 20.4 percentage points for the adult population.

Trends in age-specific literacy rates are provided in Annex 9.1. In each survey year, starting from a very low rate it increased up to a certain level and then decreased gradually. The rate was highest among aged 15–19 years followed by age group 20–24 years and 25–29 years, respectively. Over the period of 13 years (2000–2013), the literacy rate increased among the population of each age group.

Literacy rates of each age-group of population gone up over the period of 13 years (Figure 9.2). Among the population aged 7 years and above, the literacy rate was 37% in 2000 which increased to 52.7% in 2013. The rate increased from 42% in 2000 to 57.2% in 2013 for the population aged 11 years and above and from 41.6% in 2000 to 55% in 2013 for the adult population. Overall increase was 15.7 percentage points for the population aged 7 years and above, 15.2 percentage points for those aged 11 years and above and 13.4 percentage points for those aged 15 years and above.

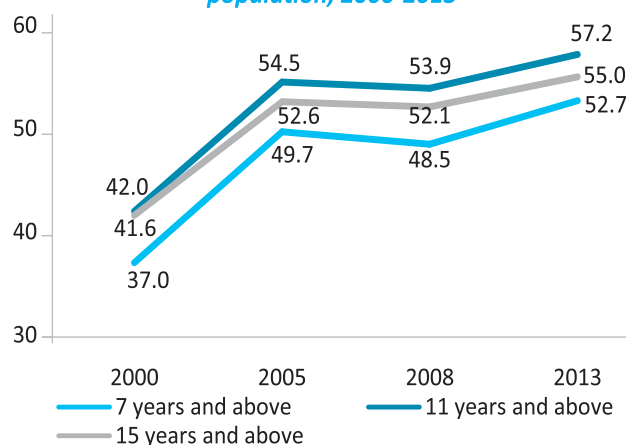
The gender gap in literacy has come down over time. For instance, among aged 7 years and above the males were 7.3 percentage points ahead of the females in 2000, which reduced to 7.2 percentage points in 2005, 3.9 percentage points in 2008 and 3.4 percentage points in 2013 (Table 9.9). This was because of faster increase of female literacy rate than that of males. Increase in literacy rate was

**Table 9.8**  
**Literacy rate of population by age group and residence, 2013**

Age groups	Residence		Both	Level of significance
	Rural	Urban		
7+ yrs.	48.5	67.3	52.7	p<0.001
11+ yrs.	53.8	72.3	57.2	p<0.001
15+ yrs.	51.3	71.4	55.0	p<0.001

Source: Education Watch Household Survey, 2013

**Figure 9.2**  
**Trends in literacy rate of various age-group of population, 2000-2013**



Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

**Table 9.9**  
**Trends in literacy rate of population by age-group and gender, 2000–2013**

Age-group and gender	Years				Increase 2000–13
	2000	2005	2008	2013	
7 years and above					
Males	40.6	53.3	50.4	54.5	13.9
Females	33.3	46.1	46.5	51.0	17.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	
Difference	7.3	7.2	3.9	3.4	
15 years and above					
Males	47.3	58.2	55.7	58.3	11.0
Females	35.8	47.0	48.6	51.9	16.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	
Difference	11.5	11.2	7.1	7.0	

Sources: Education Watch Household Survey, 2000, 2005, 2008, 2013

recorded 17.7 percentage points for the females and 13.9 percentage points for the males. Similar trend was observed for the other two age-groups of population too; however the table shows for the adults only. Females are still lagging behind the males.

Literacy rate was much higher among urban population than their rural counterparts in every survey year (Table 9.10). The urban-rural gap in literacy was much prominent than the gender gap throughout the period. In most cases the gap was 20 percentage points or more. The gap reduced over time but very slowly. Progress over time was higher in rural areas than in urban areas. For instance, the literacy rate increased by 15.1 percentage points for the rural population of age seven years and above but the increase was 11.7 percentage points for the urban population of the same age group. Similarly, the rate increased by 13.8 percentage points among the adults of rural areas and 9.1 percentage points for those of urban areas.

Extrapolating the literacy rates found in the sample survey to the national population it was estimated that 42.4 millions of adults in Bangladesh were not literate in 2013. They were 19.4 million among the males and 23 million among the females. This figure was 6.6 times in rural area than urban area (36.8 million and 5.6 million, respectively). Extrapolating the literacy rate to the population aged 7 years and above it was estimated that 57.5 million of them were not literate in 2013. No sign of decreasing non-literate adult population was evident. The number of non-literate adult population was 42.9 million in 2000 which decreased to 38.9 million in 2005 but increased to 41.9 million in 2008 and 42.4 million in 2013.

*Literate households:* Percentage of households having at least one literate person also increased over time. In 2000, 61.1% of the households had at least one literate person; this figure increased to 78% in 2005, 78.5% in 2008 and 82.9% in 2013 (Figure 9.3). The rate of increase was much faster during the first few years which became slower in later period. Although, overall, the increase was recorded 21.8 percentage points over 13 years, it was 23.4 percentage points in rural areas and 11.8 percentage points in urban areas. Improvement in urban areas was negligible after 2005. In 2013, proportion of households with at least one literate person was 81.4% in rural areas and 89.9% in urban areas with a gap of 8.5 percentage

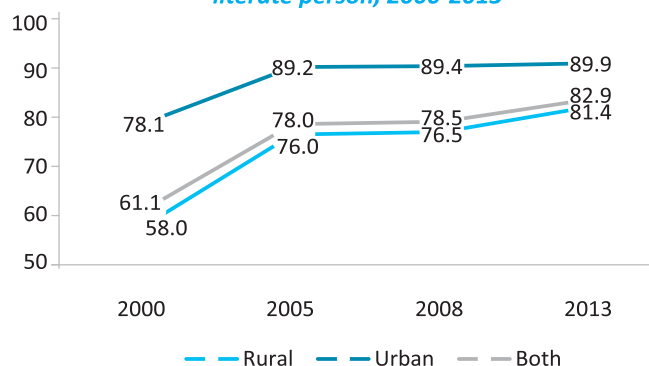
Table 9.10

*Trends in literacy rate of population by age-group and residence, 2000–2013*

Age-group and residence	Years				Increase 2000–13
	2000	2005	2008	2013	
7 years and above					
Rural	33.4	46.4	45.4	48.5	15.1
Urban	55.6	67.1	65.4	67.3	11.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	
Difference	22.2	20.7	20.0	18.8	
15 years and above					
Rural	37.5	49.0	48.6	51.3	13.8
Urban	62.3	71.1	70.8	71.4	9.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	
Difference	24.8	22.1	22.2	20.1	

Sources: Education Watch Household Survey, 2000, 2005, 2008, 2013

Figure 9.3

*Trends in percentage of households with at least one literate person, 2000–2013*

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

points. Urban-rural gap also reduced over time – from 20.1 percentage points in 2000 to 13.2 percentage points in 2005, 12.9 percentage points in 2008 and 8.5 percentage points in 2013.

As a result of proportionate increase of literate households over time number of households without any literate person has decreased. It was estimated that the number of households without any literate person was 9.6 million in 2000, 6.2 million in 2005, 6.5 million in 2008 and 5.7 million in 2013.

Household literacy status was cross-tabulated with a number of household characteristics (Annex 9.2). It was observed that 52.3% of the *always in deficit*, 71.3% of the *sometimes in deficit*, 82.3% of the *breakeven* and 93.9% of the *surplus* households had at least one literate person ( $p < 0.001$ ). It was 82.1% among the Muslim and 87.6% among the non-Muslim households ( $p < 0.001$ ). Male headed households were much ahead of the female headed households in this (84.1% vs. 72.1;  $p < 0.001$ ). Proportion of literate households was 65% if the household head had no schooling, 84.6% if they went to school but did not complete primary education, 97.6% if they completed primary education and 100% of they completed secondary education. Finally, if the household heads were literate, by definition, all those were literate households but if the heads were not literate none of the two-thirds of those households were literate.

### C. Education and literacy of the youth

The youth are a very important section of the population in every society. Although, there is variation in the concept of who belongs to this group; a common way of defining it is bracketing them according to age. According to the latest census in Bangladesh, 9.1% of total population belongs to age group 15–19 years and 8.7% belongs to age group 20–24 years; both adding up to 17.8%. In absolute number, this was 24.8 million. Adding the age group 25–29 years, the youth population would be 37.5 million or about 27% of the total population. This section provides trends in educational qualification and literacy status of youth population. Following the United Nations and the World Bank practice, those belonging to the age-group 15–24 years is considered as the youth population.

**Educational qualifications:** In 2013, 92.8% of the youth were ever schooled, 79.5% completed at least primary education, 53.8% completed at least junior secondary education and 29.3% completed at least secondary education (Table 9.11). Only 1.4% of the youth had a Bachelor degree and 10.6% of them completed higher secondary education. The females were ahead of the males in the first three indicators; however, it was the opposite for the other three indicators. On the other hand, urban youth surpassed their rural counterparts in each of the six indicators.

Level of education of the youth increased over the period of 15 years (Table 9.12). Whereas in 1998, 68.9% of the youth attended any type of school and completed at least one year of schooling (i.e., ever schooled) it increased by 23.9 percentage points over 15 years and reached 92.8% in 2013. Similarly, the proportion of youth completing primary

**Table 9.11**  
**Percentage of youth (15–24 years) at various levels of education by gender and residence, 2013**

Levels of education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Ever schooled	91.1	93.1	7.5	6.3	92.8
Primary completed (V+)	76.3	82.3	78.0	85.2	79.5
Junior secondary completed (VIII+)	51.9	55.5	50.8	65.8	53.8
Secondary completed (X+)	30.9	28.1	26.4	41.4	29.3
Higher secondary completed (XII+)	11.7	9.9	8.5	19.7	10.6
Bachelor degree holder	1.7	1.3	1.1	2.9	1.4

Source: Education Watch Household Survey, 2013



Table 9.12

Trends in percentage of youth (15–24 years) at various levels of education, 1998–2013

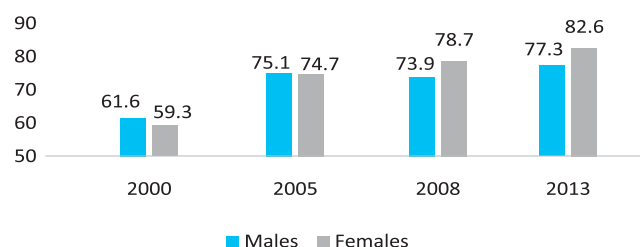
Levels of education	Years					Increase 1998–2013
	1998	2000	2005	2008	2013	
Ever schooled	68.9	76.2	86.8	89.1	92.8	23.9
Primary completed (V+)	53.3	60.4	71.5	76.4	79.5	26.2
Junior secondary completed (VII+)	30.9	36.1	45.5	48.0	53.8	22.9
Secondary completed (X+)	14.6	16.1	15.7	18.9	29.3	14.7
Higher secondary completed (XII+)	5.9	6.7	5.8	8.3	10.6	4.7
Bachelor degree holder	1.4	1.6	1.1	0.9	1.4	0.0

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

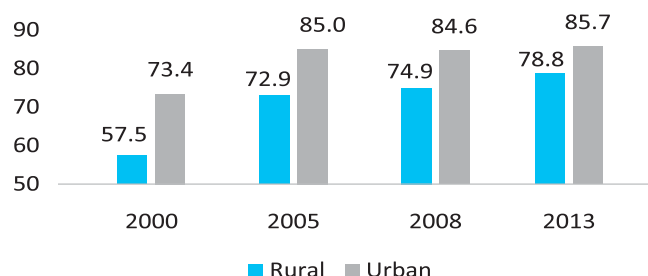
education increased 26.2 percentage points from 53.3% in 1998 to 79.5% in 2013. Increase was 22.9 percentage points if junior secondary education completers are considered and 14.7 percentage points in secondary. Improvement in the proportion of higher secondary completers was below five percentage points and no increase was observed in the proportion of Bachelor degree holders.

**Literacy status:** Literacy rate of the youth was 60.4% in 2000 which reached 74.9% in 2005, 76.5% in 2008 and 80.2% in 2013. Youth literacy rate increased by about 20 percentage points over 15 years – on average, i.e., 1.33 percentage points per year. Literacy rate increased over time for the youth in respect of both gender and residence. It increased by 15.7 percentage points for the males and by 23.3 percentage points for the females. Increase was by 21.3 percentage points for rural youth and 12.3 percentage points for urban youth.

It was interesting to observe that the relationship of youth literacy rate with gender changed over time (Figure 9.4). For instance, males were significantly ahead of the females in 2000. No gender difference was observed by 2005 and the females surpassed the males in 2008 with a significant margin. This gap favouring the females further widened by 2013. Annex 9.3 provides more details.

Figure 9.4  
Trends in youth literacy rate by  
gender, 2000–2013

Sources: Education Watch Household Survey, 2000, 2005, 2008, 2013

Figure 9.5  
Trends in youth literacy rate by  
residence, 2000–2013

Sources: Education Watch Household Survey, 2000, 2005, 2008, 2013

On the other hand, literacy rate of the urban youth was significantly higher than that of the rural youth throughout the period, although the gap was reduced over time (Figure 9.5). The urban-rural gap was 15.9 percentage points in 1998 which came down to 12.1 percentage points in 2005, 9.7 percentage points in 2008 and 7.7 percentage points in 2013. Annex 9.4 has more on this.

#### D. Estimated years required to reach full achievement on some indicators

Using the Compound Growth Model (mentioned in Chapter 2) and rates found in various indicators during the observation period (1998–2013), this section estimates years required to full achievement in some selected indicators presented in this chapter. It was estimated that the country would require more 16.8 years to have at least one year of schooling of all population aged six years or above, 24 years to have all population aged 11 years or above completing primary education, and 33 years to have all population aged 14 years or above with eight years of schooling (Table 9.13). Again, more 27.8 years would be required for all adults (15 years or above) to be literate at present standard (capability of writing a letter). The estimated figure was 23.7 years for each of the population aged 7 years or above and 11 years or above. However, it

**Table 9.13**  
*Estimation of years required to achieve various levels of education and literacy*

Indicators	Compound growth rate	Years required to achieve since 2014	Year of achievement
All population aged 6 years or more will have at least one year of schooling	0.0197	16.8	2030
All population aged 11 years or more will complete primary education	0.0254	24	2037
All population aged 14 years or more will complete junior secondary education	0.0327	33	2046
All population aged 16 years or more will complete secondary education	0.0294	57.8	2071
All population aged 7 years or more will be literate	0.0275	23.6	2037
All population aged 11 years or more will be literate	0.024	23.6	2037
All population aged 15 years or more will be literate	0.0217	27.8	2041
All households will have at least one literate person	0.0237	8	2021
All youth (15–24y) will have at least one year of schooling	0.02	3.8	2017
All youth (15–24y) will complete primary education	0.027	8.6	2022
All youth (15–24y) will complete junior secondary education	0.0376	16.8	2030
All youth (15–24y) will complete secondary education	0.0475	26.4	2040
All youth (15–24y) will complete higher secondary education	0.0398	57.5	2071
All youth (15–24y) will be literate	0.022	10.1	2023

was estimated that each household of Bangladesh would have at least one literate person by the next eight years.

The youth (15–24 years) were found to be more advanced than others in these regards because they were the most beneficiaries of the recent educational development of the country. The country will see no youth without schooling by next 3.8 years and all youth will complete primary education by 8.6 years and be literate of present standard by 10 years. Bangladesh would be able to achieve the following within the SDG period (2016–30) if current growth rate is maintained.

- All population aged 6 years or above will have at least one year of schooling by next 16.8 years (by 2030)
- All youth (15–24 years) will have at least one year of schooling by next 3.8 years (by 2017), complete primary education by next 8.6 years (by 2022), complete junior secondary education by next 16.8 years (by 2030) and will be literate by next 10 years (2023)
- All households will have at least one literate person by next 8 years (by 2021)

## E. Summary findings

The level of schooling and literacy status of the population are two direct *outputs* of primary education development in the country. These were explored for various age groups of the population.

- Four indicators were taken to understand the changes in level of education of the population. These include: (a) ever schooled population aged six years or above, (b) primary education completers aged 11 years or more, (c) junior secondary education completers 14 years or above, and (d) secondary education completers who are 16 years or above. Increase was observed in each of the four indicators; however, it was faster in the first two than the latter two. The rate of increase per year was more than one percentage point in the first two indicators, less in the third and only 0.4 percentage point in the fourth.
- Females were significantly ahead of the males in each of the indicators. The urban population outperformed their rural counterparts in all four indicators. Progress was seen more among the females than the males in each of the four indicators and it was higher for rural females than their urban counterparts. For instance, proportion of ever schooled males increased 15.9 percentage points and of ever schooled females it increased 20.8 percentage points. Again, increase in ever schooled population was 19 percentage points in rural areas and 12.9 percentage points in urban areas. Increase in primary completers was 17.7 percentage points in rural areas and 14.1 percentage points in urban areas. It may be noted that the females started from a lower base; nonetheless, a faster progress for women is encouraging.
- The literacy rate of the population also increased over time. Overall increase was 15.7 percentage points for the population aged 7 years and above, 15.2 percentage points for those aged 11 years and above and 13.4 percentage points for those 15 years and above. Literacy rate of the males was significantly ahead of that for the females in all four surveys but the gender-gap narrowed over time. For instance, gender-gap in adult literacy was 11.5 percentage points in 1998, which decreased to 11.2 percentage points in 2000, 7.1 percentage points in 2008 and 7 percentage points in 2013. Similarly, literacy rate of urban population was significantly higher than rural population in each survey year. The urban-rural gap also decreased over time but at a slower pace than gender-gap.

- The percentage of households with at least one literate person (hence called a literate household) also increased over time. In 2000, 61.1% of the households had at least one literate person which increased to 78% in 2005, 78.5% in 2008 and 82.9% in 2013. The rates of literate households were much higher in urban areas than in rural areas throughout the period, though the urban-rural gap has come down over time. On the other hand, the overall rate of progress in reduction of illiteracy has slowed down considerably in recent years.
- The impact of expansion of primary education was the most among the youth (15–24 years) which is seen in their educational attainment. During 1998–2013, the proportion of ever schooled youth increased by 23.9 percentage points (from 68.9% in 1998 to 92.8% in 2013), primary completers by 26.2 percentage points (from 53.3% to 79.5%), junior secondary education completers by 22.9 percentage points (from 30.9% to 53.8%) and secondary school completers by 14.7 percentage points (from 14.6% to 29.3%). Progress in respect of secondary school completion has been considerably lower than in the earlier stages of education.
- Analysis of age-specific literacy rate showed the highest literacy rate among youth. The youth literacy rate was 60.4% in 2000 which reached 74.9% in 2005 and 80.2% in 2013. The increase was 20 percentage points throughout the period or 1.55 percentage points per year. Increase in youth literacy was noticed across the board in terms of age group, gender and residence.
- Using a Compound Growth Model, it is projected, taking 2013 as the base year that Bangladesh would require another six years to reach 100% NER, but 37 years to reach 100% enrolment of children in the 6-10 years age group (RNER) in appropriate primary grades. In other words, these respective targets would be achieved in 2019 and 2050 at the current rate of progress. It was also projected that the population of age six and above will have at least one year of schooling by 2030 and it will be 2037 by the time all of the 11+ population complete primary education. However, all youth (15-24 years) will complete primary education by 2022 and be literate by 2023. There would be no 'non-literate household' by 2021.



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## Chapter 10

# Discussion, Conclusions and Recommendations





This final chapter of the *Education Watch* 2015 report contains three sections. A discussion of the findings of this study is presented in the first section. This also draws relevant information and ideas from previous *Education Watch* studies and other relevant work. The second section highlights the key messages emanating from the study. Based on the findings and the key messages, the third section presents some policy recommendations for enhancement of quality of primary education in line with education related goals and targets of the UN Sustainable Development Goals (SDG) 2016-2030.

## A. Discussion and conclusions

This *Education Watch* explored the state of the quality of primary education in Bangladesh. This has been done by using an *Input-Process-Output* framework. Along with the latest data collected in 2013-14, this study utilized all relevant data collected under *Education Watch* since 1998. Thus changes documented in different parameters of quality of primary education over the past one-and-a-half decades is portrayed in this study. This has not been attempted so far in Bangladesh. The significance of this exercise lies not only in the availability of estimates of various indicators of quality of education consistently for a considerable time, but also in the selection of the set of quality-related indicators.

The issue of quality was explored from a holistic perspective utilising a variety of useful indicators suggested by experts and professional organizations including UNESCO (2005), Mayer *et al.* (2000), Chapman and Adams (2004), Gobinda and Varghese (1993), and Chowdhury *et al.* (1997). Along with these, two sets of indicators used by the Directorate of Primary Education (DPE), viz., Key Performance Indicators (KPI) and Primary School Quality Level (PSQL), were also brought under consideration. The government's annual reports on the performance of primary education consider these two sets of indicators (DPE 2013, 2014). Government reports use students' learning achievement and coefficient of efficiency as outputs of primary education. In this study, we also measured educational levels and literacy status of the population. More importantly, this study examined quality through an equity lens with specific reference to gender, residence (urban/rural), school type and socioeconomic backgrounds of the students and their families.

The Constitution of Bangladesh stipulates discrimination-free education and equal opportunity for all (Article 17, Government of Bangladesh 1998). The Sustainable Development Goals or SDGs adopted at the United Nations in September 2015 also call for ensuring inclusive and equitable education with quality (United Nations 2015).

The overarching education goal, Sustainable Development Goal (SDG) 4, one of 17 SDGs, is to: *Ensure inclusive and equitable quality education and promote life-long learning opportunities for all*. The seven education targets under SDG 4 include quality general education at primary and secondary level and early childhood development, care and education for all children (Targets 4.1 and 4.2). Equal access for all women and men to affordable quality technical, vocational and tertiary education and increase in relevant skills for employment, decent jobs and entrepreneurship are called for (Targets 4.3 and 4.4). Elimination of gender disparity in education and ensuring access to all including those with disabilities are urged (Target 4.5). Literacy for youth and adults as a right and a public good is a target (Target 4.6). Acquiring by all learners knowledge and skills needed for global citizenship and sustainable development is required (Target 4.7). In addition, the targets call for building necessary physical infrastructure, expanding scholarship for students as part of international cooperation, and increasing the supply of qualified teachers (Targets 4a, 4b, and 4c). (United Nations 2015)

This study is particularly timely, because the year 2015 marks the culmination of international EFA goals and MDGs, as well as setting new sustainable development agenda for the next 15 years up to 2030. This study thus can be considered as a summative assessment of the past years' efforts and a baseline for the next 15 years, i.e., Education 2030.

**Physical and learning facilities.** Physical facilities in the educational institutions and the learning facilities therein are two critical issues that need to be in place for delivery of quality education. These are important because teaching and learning cannot happen properly if these are not in place. Less than minimally adequate physical and learning facilities existed in the primary educational institutions in Bangladesh for long. Due to various initiatives under the three Primary Education Development Programmes (PEDPs) improvements started and satisfactory results have been seen in some of the areas.

Physical facilities improved in terms of numbers of classrooms and teachers' rooms and their construction standard. Newly constructed classrooms are more spacious than those previously constructed and thus student seating capacity increased over time. However, despite this improvement, educational institutions are able to provide the students with a seat in the classroom in many schools only because all of the students do not turn up at school every day. Considering the increasing trend of students' attendance, greater attention is required to increasing the seating capacity in classrooms. Less than 10% of the classrooms had an area of 507 sq. ft. specified as the standard in PSQL. There is also deficiencies in making the classrooms disability-friendly by constructing access ramps. The majority of schools had playground and a lot of improvement was observed in providing electric lights and fans in the classrooms, but more need to be done in these areas.

Having hygienic drinking water facility and toilets for students and teachers of both genders is a basic requirement in a school. Huge improvement has been observed in this regard since 1998. Schools in the past had to bring water from outside and keep it in a jar for use; three-quarters of the schools now have on-premise drinking water. Toilet facilities improved over the same period. There are more of these and more are clean and in good working condition. These were generally cleaner when separate toilets existed for boys and girls and for male and female teachers. Providing separate toilets for males and females apparently reflected a greater awareness and concern about keeping them clean and in working order.

**Co-curricular activities.** One of the aims of the National Education Policy 2010 is 'to take necessary steps to create facilities of playground, sports, games and physical exercises in all educational institutions for the healthy growth of the physical and mental qualities of the learners' (NEP aims and objectives, 28). Government has started two nationwide football tournaments among the primary school students – one for boys and the other for girls. This initiative has created opportunities for girls to take part in football. More schools still need to do more in organizing physical exercises like drill, physical training, parade, etc. These are supposed to be daily activities before the start of the academic routine. The same can be said for annual sports, cultural competition and cub-scouting.

Although the National Education Policy 2010 emphasised co-curricular activities for students at all levels these are far from common practice in school. Quality primary education cannot be fulfilled if co-curricular activities are not integrated with curricular activities. Non-formal schools do not do these in a formal way, but these activities (especially physical exercises and activities for cultivation of culture through singing, dancing, drama, etc.) are very much integrated into classroom work. The formal school could do more in this respect.

Hoisting of national flag in school premises and singing of national anthem before start of classroom activities are important symbolic activities for inculcating, discipline, patriotism and national awareness. The National Education Policy 2010 aims ‘to inspire students with the spirit of our War of Liberation and develop patriotism, [and] nationalism’ among them (Aims and objectives, 2). Much improvement was seen in both of these practices, though there are many schools where these have not become regular activities – especially in madrasas.

**Teachers.** The role of teachers is critical in any education system. Previous studies portrayed poor teaching-learning provisions in majority of the classrooms (Nath and Mahbub 2008, Nath *et al.* 2014, 2015) which has serious implications for learning achievement of students – a direct and key output of primary education. Except in 2000, the *Education Watch* did not do any rigorous study on classroom teaching-learning practices; so it is not possible to assess changes in this regard. But, the *Education Watch* study of 2014 on Primary Education Completion Examination (PECE) indicated serious deficiencies in this respect (Nath *et al.* 2015).

A higher number of teachers in schools, decrease of student-teacher ratio, increase in educational qualification of teachers and more trained teachers than before are expected to bring about improvement in teaching-learning and its outcomes. *Education Watch* reports and other independent studies have questioned if higher educational qualification of teachers and more of them having training have actually changed classroom practices and contributed to better learning outcomes. Why this is so needs to be probed systematically. Problem areas appear to be inadequate supervision and monitoring of teachers and lack of feedback from them; failure of training to create a responsible and motivated teaching cadre; lack of condition and incentives to use teachers’ skills fully in the classrooms, among other factors.

A recent *Education Watch* study showed that a significant proportion of primary school students depends on private tutoring from own school teachers and there is a positive relationship between this and performance in PECE (Nath *et al.* 2015). The issues related to teachers need to be assessed including their skills and competencies which they gained through education and training, how they use these in classroom, performance standards for teachers, professional support and supervision of teachers, and rewards and incentives for performance.

**Management in school.** Leadership in educational institutions seems to have become better and more responsive than before. There has been an increase in educational qualifications of the SMC members, their training, and inclusion of more female members in the committees. Increase of attendance rate of the members in the meetings is also a sign of improvement. However, we did not see much difference between 2008 and 2014 in terms of issues discussed in the SMC meetings and types of decisions taken. Student absenteeism and construction and repair of physical infrastructure of schools were among the issues most frequently discussed in the meetings. In order to improve quality of education, discussion on classroom teaching-learning also came out as frequent topics in both periods. It seems that before introduction of PECE, in-school examination of the students of each grade were on the agenda of the SMC meetings which has now shifted to PECE and related issues. Students of other grades may be getting less attention regarding their assessment, especially those in the first 2 to 3 grades. There appears to no sign in practice of improved capability and leadership skills of the SMCs as reflected in scope and impact of school-level decision-making.

**Access and participation.** There is clearly an overall improvement in children’s enrolment in primary education as well as their classroom attendance over time. The absolute and relative number of out-of-

school children has decreased. These improvements resulted from targeted initiatives by the government and the NGOs aiming at underserved populations – especially, girls, poor households and rural and remote areas.

As a result of increased enrolment, the number of out-of-school children decreased in absolute numbers. Of the children aged 6–10 years, 3.8 million were reported to be out-of-school in 1998 which is estimated to have decreased to 3.4 million in 2000, 2.2 million in 2005, about the same in 2008, and decreased to about one million in 2013. Adding those aged 11–14 years, the number of out-of-school children were about three million in 2013.

Of the children who are still out-of-school, a majority of them belong to the families who are poor and the parents themselves never attended school. These are the most vulnerable households in terms of financial ability and social situation. Location-wise, *haor* and *Char* areas, and the Chittagong Hill Tracts are identified as marginalized and deprived. Innovations like BRAC's boat schools in *haor* areas, and integrating school enrolment component with health or microfinance programmes need to be considered. Affirmative actions including targeted financial incentives (such as a higher amount of stipend) may be considered. UPE cannot be achieved without some innovations in this area. The task became harder with progress. Progress so far has been somewhat easier in picking the lower hanging fruits, it is more difficult to harvest the higher hanging ones!

Going by trends in recent years, Bangladesh would require another six years to enrol all children aged 6–10 years in school, but another 13 years to achieve 90% attendance rate at primary level. Attention to regular attendance call for special measures such as mandatory attendance for participation in school level annual examinations and promotion to the next grade. Closer contacts with parents are necessary. Obstacles related to geography and physical access to school must be addressed. Moreover, classroom activities must be joyful and attractive to the students so that children are eager to come to school and stay for full contact hours. Joyful teaching-learning provisions in the classrooms is the key to ensure students attendance and achieve quality education.

Children's late enrolment in school remained a serious problem till 2014. After introduction of the pre-primary class, a good portion of parents started to send their children to it at age six, which is the initial age for grade I of primary education. A sizeable number of children of 4–7 years are still enrolled in pre-primary education and those of 4–10 years in the first grade of primary education. For better interaction among peers in the class and handling of the class by the teacher, age-homogeneity is necessary for both pre-primary and primary classes. This aspect has not received systematic policy attention, such as mandatory birth registration, and working with parents, community and the local government. The improvement in this respect shows increased awareness of parents, but more efforts are needed to create a culture of timely school enrolment of students.

**Internal efficiency.** Analysis of efficiency of the primary education system in terms of survival of students up to grade V and completion of the full cycle of primary education showed consistently improving numbers. Students must stay in school until they complete the primary education stage. Is improvement in this respect happening through easing promotion criteria between grades and relaxing criteria for passing PECE as well as setting questions and marking examination papers in PECE? Concerns have been expressed in this regard by studies and informed observers. Coefficient of efficiency, therefore, may not result in students' learning achievement.

**Learning outcome.** The good news clearly is that students' learning achievement measured through a competency-based test reported in this study as well as completion of the primary stage by students show a trend of improvement. The girls were behind the boys in earlier years; now girls have overtaken the boys and a new concern may be the disadvantage of boys. However, inequality persists in performance between rural and urban schools and among various types of schools. Location related and school type-wise inequality call for concerted and targeted efforts to creating equal facilities in schools including both infrastructure and teachers.

The other issue related to students' learning achievement was differential performance in 'knowledge' and 'understanding' domains. Students' performed poorly in the 'understanding' domain compared to the 'knowledge' domain throughout the study period (2000–2014). Development of 'understanding' is clearly a greater challenge than teaching in the 'knowledge' domain. It suggests the need for major changes in classroom teaching-learning practices, ensure high attendance rate of students as well continuing formative assessment of learning and formal summative examinations.

It is important to recognise the gradual improvement in results of the competency test developed and administered under *Education Watch*. At the same time, the positive trend by itself does not answer questions that may arise about what is acceptable or desired competency level of students and whether the test performance indicates competency level of students appropriate for effective functioning in further education, in employment or in life situations. It is worth noting that national assessment of competencies in mathematics and language of fifth graders conducted under the auspices of DPE showed that in 2013 only a quarter of the students performed at expected grade level (M&E Division 2014). The gap between 'knowledge' and 'understanding' also signals critical issues about teaching and learning of competencies, assessing competencies, and how competencies are defined and handled in curriculum, teacher training and classroom practices.

Although the government primary schools and the newly nationalized primary schools serve about four-fifths of the primary students in Bangladesh, there are several other types of provisions. Multiple providers including non-formal primary education of both NGOs and the government, religion-based institutions, and the private sector, which have developed historically, have been accepted as a pragmatic approach to reach and serve all children. This study showed large differences in various quality indicators in terms of school type as well as differences within each school type including those run by the government. However, improvement in the government primary schools was more marked compared to the other types under study.

Investment in the PEDP programmes has given the edge to government schools' improvement in 'intermediate' outputs as well as the consequent learning achievement compared to other types. Yet, the nation cannot wait decades to bring the newly nationalized schools to the present level of the government schools. Initiatives with adequate financial allocations are thus required to improve the quality of all schools. Major areas for improvement are physical and learning facilities, teachers' quality and capacity of managing committees. The kindergartens have grown phenomenally and have become an important category in terms of number of students served. While these schools have done relatively well in students' learning achievement test, this is no cause for complacency as noted above with regard to desired and acceptable learning achievement. Given the growing proportions of children enrolled in this private sector category, ways have to be considered regarding bringing these institutions under a national quality surveillance process.

**Reducing gaps among and within school types.** The share of non-formal primary education in total primary education has been reported to have declined rather sharply from a peak of 9.6% in 2008 to 4.3% in 2013. However, as noted in Chapter 6, reliability of data about the proportion of non-formal primary education is problematic. The total number of non-formal schools and their enrolment reported by major providers of non-formal education — such as BRAC, the SHARE Project and ROSC — totalling over 1.7 million, indicate that the proportion of non-formal enrollee could be at least double this reported number in 2013 (Ahmed 2015).

Non-formal primary schools were initiated by the NGOs as an alternative EFA strategy to serve the groups left out by the formal mode of education. As the government system builds its capacity over time, and nationalization of certain schools remain on agenda in line with the National Education Policy 2010, it could be argued that the need for the alternative provision has declined. This, however, cannot be said for some of the ecologically disadvantaged areas like *haor, Char, and coastal and hilly areas* (Nath 2013, UNICEF 2010). The fact of large numbers of out-of-school children and that large numbers continue to attend the non-formal schools testify to their need and demand. The non-formal primary schools, sometimes referred to as the *second chance* for primary education, has to be an important part of the national universal primary education plan (Ahmed 2015).

The stand-alone ebtedayee madrasas were never in a strong position in terms of quality. The *Education Watch* 2008 study showed that these were much behind the ebtedayee sections of the high madrasas (Nath and Chowdhury 2009). Again, of the total number of madrasa students at primary level, only a fifth enrol in the stand-alone ebtedayee madrasas, while the majority attend the ebtedayee sections of the high madrasas. Education of every child is important. As long as the ebtedayee madrasas, independent ones and those linked to high madrasas, remain a part of the system, special steps have to be taken to make them functional and raise their quality, as has been done with the former registered and non-registered non-government schools.

**Females' engagement in education.** Elimination of gender disparity in access to primary and secondary education have been a well-recognised accomplishment. The other areas of increased females' participation are teaching staff, heads of institutions, and SMC. At present over half of the primary students, 63.4% of the assistant teachers, 30.4% of the head teachers, and 41.3% of the SMC members are females. Such an accomplishment has been possible due to affirmative actions and creating various facilities for the girls and women since Independence. Bangladesh's commitment to enhance participation of girls and women in education sector are portrayed in the five-year plan documents (Planning Commission 1973, 1978, 1983, 1985, 1990, 1998, 2011). The commitments are reflected in the primary education development programmes (PEDPs). One of the next steps should be further increase of female head teachers and SMC members so that both genders are equally represented. The question about what changes have happened in school culture and norms or in classroom teaching due to the education sector progress towards gender equity is a pertinent one. This study did not look at this issue but recognizes the need for such an investigation.

Educational levels of the parents of primary school age children, the primary school teachers and the SMC members have improved over time. Moreover, the school teachers are more trained than before. What changes have been made in the teaching-learning provision of the children at home and in school as a result of all these improvements are also a relevant issue for investigation.

**Need for accelerated progress.** The trend of improvement has been reported in educational attainment and literacy status of the general population. These are the direct impacts of expansion of primary education in the country, especially because no other means of acquiring literacy is effectively available in the country.



Although the progress is significant but the country is far from reaching a certain level of education or achieving literacy for all of its citizens. Extrapolation of current trends indicates that Bangladesh would require another 24 years, from the base-year of 2013, to have all population aged 11 years and above to complete primary education, and 28 years to have all adults (15 years and above) to be literate (with the capability of writing a letter). However, at least one person in each household would have a literate person by the next 8 years. The youth (15–24 years) have been the beneficiaries, more than others, of the recent educational development of the country. We are likely to see no youth without schooling within 4 years and all youth will complete primary education in 8.6 years and be literate in 10 years.

Let us look at the first two of the targets of the education related SDGs which reads:

- By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- By 2030, ensure that all girls and boys have access to quality early childhood development, care and education so that they are ready for primary education.

If Bangladesh wants to achieve the above targets of SDG, the whole school education effort have to be brought under a comprehensive development package including pre-primary to secondary education. We would have to ensure enrolment of all children in pre-primary and primary education, a high rate of classroom attendance, completion of both primary and secondary stages and learning achievement at each stage with defined standards. A strong political commitment expressed in adequate budgetary allocations and in backing of measures to overcome governance and management deficiencies is an essential condition for success.

## B. Key messages

The overall message of *Education Watch 2015* is strongly positive. The trend of progress in the last two decades has been maintained. There are major accomplishments, particularly, in what may be called the ‘intermediate’ outputs. The following are the key messages emanating from the findings of the *Education Watch 2015* study.

1. *Educational institutions are better equipped than before; major improvement has been witnessed in the government school facilities.* Physical and educational facilities of primary educational institutions have improved over time, especially in classroom space, sanitation and water facilities as well as educational qualifications and training of teachers. Major improvements were noticed in the government primary schools, which serve about two-thirds of the primary school students. Newly nationalized primary schools lag considerably behind. The majority of the ebtedayee madrasas do not have the minimum required facilities. Despite progress, separate and clean toilet facilities for girls, size of the teaching personnel, high student-teacher ratio, and insufficient learning time especially in double-shift schools are still concern.
2. *Improvement of the systems was noticed in intermediate output indicators.* These include survival of students up to the end of primary education, completion of such education and reduction in dropout and repetition. Learning achievement of the students also showed an improvement over time. However, students’ performance in the ‘understanding’ domain lagged much behind the ‘knowledge’ domain. This signals critical issues about teaching and learning for competencies, assessing competencies, and how competencies are defined and handled in curriculum, teacher training and classroom practices.



3. *Gender disparity in access and participation has been eliminated and females share in primary education is increasing.* Enrolment of more girls than boys is well documented. This study also shows an increasing share of females among the teaching staff, heads of institutions, and in the school managing committees. Proportions of schools with more female teachers than males and SMCs with more female members than male members also showed an upward trend.
4. *Disparity and inequity in primary education is a lingering problem especially in certain geographical areas and socio-economic groups.* Despite progress in school enrolment and learning outcome, ecologically disadvantaged areas and socio-economic groups in poverty indicated by 'food security status' in this study is reflected in inequity in terms of gender, residence (rural/urban) and parental schooling level though the gaps in these respects have narrowed. Variations are visible among school types which call for special effort to overcome.
5. *Educational attainment and literacy status of the population have improved.* As a result of continuous effort to improve primary education and increased enrolment and completion in primary education, a positive change has occurred in educational capability of the population of the country. Educational attainment of the masses, represented by years of schooling completed, their literacy status and households with at least one literate person have increased over time.
6. *There is unfinished business from EFA 2015; these and the broader vision of Education 2030 as part of SDG 2030 require concerted planning and action.* Dropout and non-completion in primary education, out-of-school children, better learning outcome and ensuring necessary resources are the continuing unfinished agenda. In addition, helping all children grow and prepare them to learn through early childhood development and preschool education; extending compulsory education to secondary level; enhancing skills and competencies of learners for further learning, work and life; widening lifelong learning opportunities in a learning society; preparing a new generation equipped for responsible global and local citizenship and for its role in sustainable development; and removing obstacles and disparities for all disadvantaged groups are part of the broader Education 2030 agenda.

### C. Policy recommendations

The findings, the analyses and the main messages of the *Education Watch 2015* study lead to policy imperatives for continuing the effort to move forward with Education 2030 targets in the context of SDG 2030.


1. *Address inequity in input and process related factors among various types of schools and the schools within each type.* This is important for the sake of offering equal opportunity to the children irrespective of the type of school they enrolled and location of the schools. The *upazila* education offices can assess the needs of the schools along with the SMCs and the communities and prepare development plans for need based investment for further improvement of quality of primary education provision. A mechanism for comprehensive *upazila*-based assessment, planning, estimating resource requirements, management and monitoring for achieving universal primary education with acceptable quality has to be established with the involvement of all education providers and the local government bodies. Special attention has to be given to the development of the newly nationalized primary schools.
2. *Emphasize improvement of classroom teaching to make it more interactive and joyful so that students' classroom attendance increases and learning can be enhanced.* Teachers, parents and the school

committee have to work together to bring about the transformation in classroom practices, student engagement and better learning results. The role of SMCs is particularly important in this regard. At present, the parents, teachers and the SMC members have better educational attainment than before. How the increased capabilities of these people can be utilised more effectively for creating a learning culture at home and in school should be identified and implemented.

3. *Encourage on-time entry to primary school to promote a culture and discipline of participation and progression of children in school.* Birth registration, campaign for entry at right age and regular attendance should be the combined responsibility of school, managing committee, parents, community and local government. This would also reduce age related heterogeneity in the classrooms, help better classroom interaction among the students, and an atmosphere for joyful learning can be created. Children of age six or above coming to enrol in school should be admitted in the first grade of primary education irrespective of their prior experience of pre-primary education. Similarly, children below six years should be admitted to pre-primary education.
4. *Emphasize a comprehensive view of learner competencies including the domain of 'understanding' and enhancement of creativity.* This is strongly related to the way students are assessed in school and in PECE and the way teachers prepare them for such assessments. How to move away from the current text-book based and high-stake PECE to an emphasis on formative assessment and public assessment of core competencies more to evaluate the system performance, rather than grading individual students, should receive serious attention. The currently prevailing exam-centric pre-occupation of schools, teachers, and parents needs to be transformed to a learning-centric school and classroom activities, which have to be encouraged by policy measures. A culture of studying the content of a subject in textbooks and other materials including the internet resources and an activity and project approach in classroom, rather than memorising questions-and-answers, will encourage 'understanding' and creativity. Reducing the present student-teacher ratio to an acceptable 30 to 1 will call for at least 50 percent more teaching personnel with the current enrolment level.
5. *The emphasis on quality of education cannot preclude attention to right-based access and participation of all children in school.* Still, about three million children are out-of-school! These children are most vulnerable in terms of disabilities, geographical location, and socioeconomic status. A special programme can be developed to reach these children. A single mode, say non-formal education, might not work well to address everyone. A multiple mode of operation with new package of support attractive than *upabritti* might be required. A systematic effort is needed to identify and reach out to the children at risk of non-enrolment and dropout. To address the issue, DPE can work together with the experienced NGOs with a time bound plan.
6. *Public investment in education needs to be increased very substantially, reversing the trend of decline as share of GDP and national budget.* A holistic approach with strong political commitment is required for this purpose, ensuring that both existing and new resources are better utilised. It cannot be just an incremental approach of adding to the existing pattern of expenditure. Within the medium term, it would be reasonable and feasible to double public resources for education as share of GDP and raise it further in a 10-year time-frame up to a level appropriate for medium level middle income country. Major increase in expenditure for teachers will be needed in the labour-intensive education sector, if the required numbers of teachers are planned to be employed, attracting talented people and holding on to them in the profession. Major investments will also be needed in infrastructure to ensure a threshold of investment without which the system cannot function efficiently.

7. *Intensify and accelerate the work needed to address the unfinished tasks of EFA 2015 and launch a coordinated national effort with a framework of action for Education 2030.* Various elements of the new agenda exist in existing primary, secondary and non-formal education and skills development initiatives. These have to be critically looked at from an overall strategic framework for Education 2030, filling gaps and deficiencies, strengthening components as needed, and maintaining an oversight over progress. A participatory mechanism for this oversight by stakeholders including civil society, NGOs and academics needs to be established with the lead given by the concerned national focal point for SDG coordination. Adapting and adjusting global targets and indicators for the national context, linking the education priorities to other SDG goals and targets, and guiding monitoring and reporting of progress on Education 2030 can be the tasks of the oversight body.

To summarise a key point, the trend of positive development in the last two decades has been encouraging. There are major accomplishments, particularly, in what may be called the intermediate outputs. The unfinished tasks of EFA 2015 and the broader agenda of Education SDG 2030 present a challenge and an opportunity. The positive results in recent years are the capital on which much needed further progress in learning outcome and overcoming lingering disparities in educational participation has to be, and can be, built. To reach the SDG target for 2030, Bangladesh needs to accelerate its progress compared to what was done during the MDG era.

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## Annexes

### Annex 1.1. The fourth Sustainable goal and related targets

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
- 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
- 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
- 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
- 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
- 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
- 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
- 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
- 4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries
- 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

## Annex 1.2

*Percentage distribution of countries by duration of compulsory education and year*

Duration	Developed countries		Developing countries		World	
	2000	2012	2000	2012	2000	2012
5-8 years	3.6	0.0	29.6	21.9	21.4	15.3
9 years	23.6	8.8	26.3	15.8	25.4	13.7
10 years	32.7	28.1	21.2	22.6	24.9	24.2
11 years	25.5	29.8	11.9	14.3	16.2	18.9
12 years	10.9	12.3	9.3	15.8	9.8	14.7
13+ years	3.6	21.0	1.7	9.8	2.3	13.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: EFA global monitoring reports (UNESCO 2003, 2015)

## Annex 1.3

*Global trends in primary adjusted net enrolment ratio, 1990–2012*

Regions	Adjusted net enrolment rate		Change
	1999	2012	
World	84	91	7
Developed countries	98	96	-2
Developing countries	82	90	8
Arab States	80	89	9
Central & Eastern Europe	93	96	3
Central Asia	95	95	0
East Asia and the Pacific	95	96	1
Latin America & Caribbean	93	94	1
North America & W Europe	98	98	0
South and West Asia	78	86	10
Sub-Saharan Africa	59	63	14

Source: EFA global monitoring reports (UNESCO 2003, 2015)

## Annex 1.4

*Adjusted net enrolment rate by income categories of countries, year and gender*

Categories of countries	1999				2012			
	Total	Boys	Girls	Diff.	Total	Boys	Girls	Diff.
Low income	60	63	56	7	83	85	81	4
Middle income	87	90	83	7	92	93	92	1
Lower middle	80	86	74	12	90	91	90	1
Upper middle	94	95	94	1	95	96	95	1
High income	96	96	96	0	96	96	97	1

Source: EFA global monitoring report (UNESCO 2015)

## Annex 1.5

*Global trends in total primary enrolment by income group of countries, 1990–2012*

Categories of countries	Total primary enrolment (000)			Percentage of girls		
	1999	2012	% change	1999	2012	change
Low income	74 538	130 721	75.4	46	48	0
Middle income	492 364	494 614	0.5	46	47	1
Lower middle	241 068	291 582	21.0	45	48	3
Upper middle	251 296	203 032	-19.2	48	47	-1
High income	84 931	79 768	-6.1	49	49	0

Source: EFA global monitoring report (UNESCO 2015)

## Annex 1.6

*Global trends in girls' enrolment in primary education, 1990–2012*

Regions	Percentage of girls in primary education			Change since...	
	1990	1999	2012	1990	1999
World	45.9	47	48	2.1	1.0
Developed countries	48.6	49	49	0.4	0.0
Developing countries	45.4	46	48	2.6	2.0
Arab States	43.4	45	47	3.6	2.0
Central & Eastern Europe	48.5	48	49	0.5	1.0
Central Asia	49.1	49	48	-1.1	-1.0
East Asia and the Pacific	47.1	49	48	0.9	-1.0
Latin America & Caribbean	48.8	48	48	-0.8	0.0
North America & W Europe	48.6	49	49	0.4	0.0
South and West Asia	41.5	44	48	6.5	4.0
Sub-Saharan Africa	45.2	46	47	1.8	1.0

Source: EFA global monitoring reports (UNESCO 2003, 2015)

## Annex 1.7

*Global trends in out-of-school children, 1990–2012*

Regions	Total out-of-school children (000)			Percentage change since...	
	1990	1999	2012	1990	1999
World	104 189	105 769	57 788	-44.5	-45.4
Developed countries	1 829	1 427	2 347	28.0	64.5
Developing countries	100 169	102 930	54 876	-45.2	-46.7
Arab States	7 408	7 772	4 467	-39.7	-42.5
Central & Eastern Europe	1 943	1 763	827	-57.4	-53.1
Central Asia	623	379	295	-52.6	-22.2
East Asia and the Pacific	14 023	11 883	6 923	-50.6	-41.7
Latin America & Caribbean	1 949	3 999	3 763	93.1	-5.9
North America & W Europe	1 808	992	2 060	13.9	107.7
South and West Asia	32 411	36 697	9 814	-69.7	-73.3
Sub-Saharan Africa	44 025	42 283	29 639	-32.7	-29.9

Source: EFA global monitoring reports (UNESCO 2003, 2015)

## Annex 1.8

*Global trends in total primary enrolment by income group of countries, 1990–2012*

Categories of countries	Out-of-school children (000)		
	1999	2012	% change
Low income	38 656	20 749	-46.3
Middle income	64 004	34 221	-46.5
Lower middle	50 348	26 333	-47.7
Upper middle	13 656	7 888	-42.2
High income	3 109	2 821	-0.1

Source: EFA global monitoring report (UNESCO 2015)

## Annex 1.9

*Number of primary educational institutions in different years by type, 2001–2014*

School type	Year				
	2001	2005	2007	2010	2014
Government primary school	37,671	37,672	37,672	37,672	38,033
Newly nationalized primary school	-	-	-	-	25,008
Registered non-govt. school	19,428	19,682	20,107	20,061	193
Non-registered non-govt. school	1,971	946	973	666	1,744
Experimental school	53	54	54	55	55
Ebtedayee madrasa	3,843	6,768	6,726	2,305	2,673
Kindergarten	2,477	2,281	2,253	4,418	16,170
NGO school	170	289	311	361	2,512
Community school	3,268	3,027	3,186	3,169	120
Satellite school	4,095	-	-	-	-
High madrasa attached ebtedayee	3,574	8,329	8,920	9,120	5,526
High school attached primary	1,576	1,353	1,314	858	1,511
BRAC primary school (non-formal)	-	-	-	-	7,779
ROSC school (non-formal)	-	-	-	-	3,818
ShishuKalyan school (non-formal)	-	-	-	-	133
Other schools	-	-	-	-	3,262
Total	78,126	80,401	81,516	78,685	108,537

Sources: *Primary education statistics in Bangladesh 2001 (DPE 2002)*

*Baseline report of second primary education development programme (DPE 2006)*

*Annual primary school census 2010 (DPE 2011)*

## Annex 2.1

*List of indicators used in assessing quality of primary education*

Indicators	Source	Type
1. Percentage of schools established on own land	School survey	Input
2. Percentage of schools having own structure	School survey	Input
3. Percentage of structures with ramp	School survey	Input
4. Percentage of schools having electricity facility	School survey	Input
5. Percentage of schools having playground	School survey	Input
6. Percentage of schools having garden	School survey	Process
7. Percentage of schools keeping floors clean	School survey	Process
8. Percentage of schools keeping walls clean	School survey	Process
9. Percentage of schools surrounding is calm and quiet	School survey	Process
10. Mean number of classrooms per school	School survey	Input
11. Percentage of classrooms attached to ramp	School survey	Input
12. Percentage of classrooms $\geq$ 507 sf. ft.	School survey	Input
13. Percentage of schools having five or more classrooms	School survey	Input
14. Percentage of classrooms made of brick and tin-coated iron sheet	School survey	Input
15. Percentage classrooms with fully in good condition	School survey	Input



Indicators	Source	Type
61. Percentage of head teachers with Bachelor degree	School survey	Input
62. Percentage of head teachers having basic teacher training	School survey	Input
63. Percentage of head teachers having subject-based training	School survey	Input
64. Mean number meeting held per year	School survey	Process
65. Percentage of SMCs maintain written meeting minutes	School survey	Process
66. Attendance rate of SMC members in meeting	School survey	Process
67. Gross enrolment ratio	HH survey	Process
68. Net enrolment rate	HH survey	Process
69. Real net enrolment rate	HH survey	Process
70. Adjusted net enrolment ratio	HH survey	Process
71. Age-grade congruency among primary students	HH survey	Process
72. Gross intake ratio	HH survey	Process
73. Net intake rate	HH survey	Process
74. Co-efficient of variation in age of grade I students	HH survey	Process
75. Students' classroom attendance rate	School survey	Process
76. Promotion rate of students at various grades	School survey	Process
77. Retention rate of students at various grades	School survey	Process
78. Survival rate up to grade V	School survey	Output
79. Primary cycle completion rate	School survey	Output
80. Primary cycle dropout rate	School survey	Output
81. Coefficient of efficiency of the system	School survey	Output
82. Mean number of competencies achieved	Test	Output
83. Subject-wise percentage of competencies achieved	Test	Output
84. Students mean performance by taxonomic class level	test	Output
85. Percentage of ever schooled population	HH survey	Output
86. Percentage of primary education completing population	HH survey	Output
87. Percentage of junior secondary education completing population	HH survey	Output
88. Percentage of secondary education completing population	HH survey	Output
89. Literacy rate	HH survey	Output
90. Literacy rate of 11+ population	HH survey	Output
91. Adult literacy rate	HH survey	Output
92. Percentage of literate household	HH survey	Output
93. Percentage of ever schooled youths	HH survey	Output
94. Percentage of youths completing primary education	HH survey	Output
95. Percentage of youths completing junior secondary education	HH survey	Output
96. Percentage of youths completing secondary education	HH survey	Output
97. Percentage of youths completing higher secondary education	HH survey	Output
98. Literacy rate of youths	HH survey	Output

## Annex 2.2. Glossary

*Adjusted net enrolment ratio (ANER):* Enrolment of the children of official age group for primary education either at that level or the levels above, expressed as a percentage of the population in that age group.

*Adult literacy rate:* Percentage of population aged 15 years or more having ability in reading and writing a communication letter.

*Coefficient of efficiency:* It is a ratio of expected pupils years required to complete the full cycle of primary education by the graduates and total years actually spent to produce those graduates expressed in percentage term.

*Ever schooled population:* Percentage of population having at least one year of schooling of any form among those aged six years or more.

*Gross enrolment ratio (GER):* The gross enrolment ratio (GER) refers to the number of children currently enrolled in primary grades (I-V) for every 100 children of age 6-10 years.

*Gross intake ratio (GIR):* Gross intake ratio is the total number of new entrants in the first grade of primary education, regardless of age, expressed as a percentage of the population at the official primary school-entrance age.

*Junior secondary education completer:* Percentage of population completing the full cycle of primary education as well as first three grades of secondary education (total 8 years) in any recognized institution among those aged 14 years or more.

*Literacy rate:* Percentage of population aged 7 years or more having ability in reading and writing a communication letter.

*Literate household:* Percentage of households having at least one literate person as member.

*Net enrolment rate (NER):* The net enrolment rate (NER) refers to the number of children aged 6-10 years currently enrolled in any grade in any school for every 100 children of the same age range.

*Net intake rate (NIR):* Net intake rate is the new entrants in the first grade of primary education who are of the official primary school-entrance age, expressed as a percentage of the population of the same age.

*Out-of-school children:* Children of age 6–10 years who were currently not enrolled in school were considered as out-of-school children.

*Primary education completer:* Percentage of population completing the full cycle of primary education in any recognized institution among those aged 11 years or more.

*Real net enrolment rate (RNER):* Enrolment of the children belonging to official age group for primary education at primary classes, expressed as a percentage of the population in that age group.

*Secondary education completer:* Percentage of population completing the full cycle of primary and secondary education (total 10 years) in any recognized institution among those aged 16 years or more.

*Student-teacher ratio:* It is a ratio between number of students and number of teachers at school or system level. In other words, it is an average number of students per teacher.

*Survival rate by grade:* Percentage of a cohort of students who are enrolled in the first grade of primary education in a given school year and are expected to reach a specific grade, regardless of repetition.

Annex 3.1. Percentage distribution of schools by year of establishment, school type and residence, 2014

## Annex 3.1

*Percentage distribution of schools by year of establishment, school type and residence, 2014*

Year	School type					Residence		All
	Government	Newly national.	Kinder-garten	Non-formal	Ebteda-ye	Rural	Urban	
Up to 1947	58.0	0.0	0.7	0.0	1.3	20.2	11.4	19.3
1948-1971	28.0	6.7	0.0	0.0	10.7	11.6	7.6	11.0
1972-1990	14.0	66.0	8.7	0.0	70.7	22.0	16.2	21.4
1991-2014	0.0	27.3	90.6	100.0	17.3	46.2	64.8	48.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean age (y)	72.4	31.2	13.4	2.9	33.9	35.0	25.5	34.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.2

*Percentage distribution of schools by distance from upazila, school type and residence, 2014*

Distance (Km.)	School type					Residence		All
	Government	Newly national.	Kinder-garten	Non-formal	Ebteda-ye	Rural	Urban	
≤5 km	24.0	28.0	67.4	55.3	28.0	33.1	93.8	40.1
5.1-10 Km.	29.3	27.3	21.0	30.0	34.7	30.9	6.2	28.0
10.1-15 Km.	20.7	25.3	5.8	7.3	21.3	18.0	0.0	15.9
15 Km.+	26.0	19.3	5.8	7.3	16.0	18.0	0.0	16.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean (y)	11.3	10.8	4.7	6.3	9.9	9.7	2.1	8.8

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.3

*Percentage distribution of schools by level of difficulty to reach school from upazila, season, schools type and residence, 2014*

Difficulty level	School type					Residence		All
	Government	Newly national.	Kinder-garten	Non-formal	Ebteda-ye	Rural	Urban	
Dry season								
Easy	78.7	73.2	97.8	80.7	84.0	78.7	94.8	80.5
Moderately	14.0	15.4	1.5	12.0	6.7	12.9	4.1	11.9
Hart to reach	7.3	11.4	0.7	7.3	9.3	8.4	1.0	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wet season								
Easy	63.3	56.0	93.5	60.7	58.7	61.8	87.5	64.8
Moderately	15.3	22.0	4.3	22.7	24.0	19.1	8.3	17.8
Hart to reach	21.3	22.0	2.2	16.7	17.3	19.1	4.2	17.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.4

*Classroom seating capacity by school type and residence, 2014*

School type	Mean number of students...		
	Registered	Can seat with ease	%
<i>Rural area</i>			
Government	52.6	43.7	83.1
Newly nationalized	39.0	35.2	90.3
Kindergartens	34.7	36.9	106.3
Non-formal	26.4	29.7	112.5
Ebtedayee madrasa	26.7	23.2	86.9
All	43.5	38.6	88.7
<i>Urban area</i>			
Government	75.7	58.6	77.4
Newly nationalized	44.4	36.8	82.9
Kindergartens	40.7	43.7	107.4
Non-formal	29.9	29.8	99.7
Ebtedayee madrasa	-	-	
All	49.9	46.3	92.8

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.5

*Percentage distribution of head teachers and teachers' rooms in terms of construction materials and overall condition by school type and residence, 2014*

Indicators	School type					Residence		All
	Government	Newly national.	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
<i>Construction materials</i>								
Fully brick	87.1	92.6	46.4	0.0	18.3	79.0	67.5	77.2
Brick & tin-coated iron sheet	9.0	4.7	37.4	50.0	36.7	13.0	27.3	15.2
Fully tin-coated iron sheet	3.6	1.4	12.3	50.0	25.0	6.1	4.9	5.9
Tin-coated iron sheet & others	0.0	1.4	3.9	0.0	20.0	1.9	0.3	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Overall condition of structure</i>								
Fully all right	85.7	71.8	69.7	100.0	26.7	76.7	78.2	77.0
Major parts all right	7.8	12.1	19.1	0.0	20.0	11.5	14.0	11.8
Half part all right	1.3	6.7	9.6	0.0	30.0	5.0	7.5	5.4
Major part dilapidated	3.9	9.4	1.1	0.0	18.3	5.7	0.3	5.0
Fully dilapidated	1.3	0.0	0.6	0.0	5.0	1.1	0.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.6

*Percentage of head teachers and teachers' rooms having light and air by school type and residence, 2014*

Indicators	School type					Residence		All
	Govern- ment	Newly national	Kinder- arten	Non- formal	Ebted ayee	Rural	Urban	
<i>Natural light and air flow</i>								
Light	98.7	98.6	91.6	100.0	96.7	98.1	91.5	97.0
Air	98.7	100.0	91.6	100.0	95.0	98.5	91.2	97.3
<i>Electric light and fan</i>								
Light	56.1	33.8	85.5	50.0	31.7	48.7	92.2	55.8
Fan	57.1	28.4	82.1	50.0	31.7	46.6	92.5	54.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.7

*Percentage of schools having soap for hand washing and disable-friendly toilet by school type and residence, 2014*

Facilities in toilets	School type					Residence		All
	Govern- ment	Newly national	Kinder- garten	Non- formal	Ebteda- yee	Rural	Urban	
Soap for hand washing	43.3	35.9	52.2	22.6	11.3	35.0	49.8	36.8
Whether toilets are disable-friendly	2.8	1.4	1.4	1.7	0.0	2.1	2.2	2.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 3.8

*Percentage distribution of schools by number of hygienic toilet, school type and residence, 2014*

Number of hygienic toilets	School type					Residence		All
	Governm- ent	Newly national.	Kinder- garten	Non- formal	Ebteda- yee	Rural	Urban	
Nil	8.7	12.0	10.1	22.0	18.7	14.5	8.6	13.8
1	20.0	25.3	32.6	54.7	40.0	33.9	32.8	33.8
2	30.0	44.0	26.8	0.0	20.0	23.4	23.1	23.3
3	30.0	5.3	16.7	0.0	4.0	12.9	15.9	13.4
4+	8.7	8.0	13.8	0.0	0.0	5.1	15.5	6.3
No toilet	2.7	5.3	0.0	23.3	17.3	10.2	4.1	9.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	2.1	1.7	1.9	0.7	1.1	1.6	2.0	1.6

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.1

*Trends in percentage distribution of schools by gender composition among teachers by residence and school type, 1998–2014*

Year/Gender composition	Residence		School type					All
	Rural	Urban	Governm ent	Newly national.	Kinderg arten	Non-formal	Ebteda yee	
2014								
More females	67.7	83.3	72.7	34.7	75.2	92.7	6.7	69.4
Equal	11.9	6.6	8.7	34.0	7.3	0.0	5.3	11.3
More males	20.5	10.1	18.7	31.3	17.5	7.3	88.0	19.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2008								
More females	46.4	75.4	54.7	13.1	-	94.0	1.9	48.3
Equal	11.2	7.0	13.3	28.6	-	0.0	6.7	10.9
More males	42.5	17.6	32.0	58.3	-	6.0	91.4	40.8
Total	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0
1998								
More females	31.7	63.4	29.0	16.4	72.0	89.4	0.0	40.1
Equal	10.5	6.0	11.0	22.4	10.0	0.0	0.0	9.3
More males	57.9	30.6	60.0	61.2	18.0	10.6	100.0	50.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014

## Annex 4.2

*Percentage of non-Muslim teachers by school type and residence, 2014*

School type	Residence		Both	Level of significance
	Rural	Urban		
Government	16.5	15.5	16.4	ns
Newly nationalized	12.8	17.2	12.9	ns
Kindergarten	13.8	13.2	13.5	ns
Non-formal	21.0	16.0	20.5	ns
Ebtedayee madrasa	0.6	-	0.6	na
All	15.1	14.0	14.8	ns
Level of significance	p<.001	ns	p<0.001	

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.3

*Percentage of teachers received their highest education from madrasas, 2014*

School type					Gender		Residence		All
Government	Newly national.	Kindergarten	Non-formal	Ebtedayee	Males	Females	Rural	Urban	
1.0	3.5	3.4	1.2	58.2	6.6	0.9	3.0	3.0	3.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.4

*Percentage distribution of teachers possessing higher secondary education by stream of education, 2014*

Secondary	Higher secondary	Number of teachers	% of teachers
Hum.	Hum.	1,788	49.5
Sc.	Sc.	829	23.0
Bus.	Bus.	290	8.0
Sc.	Hum.	431	11.9
Sc.	Bus.	131	3.6
Others		142	3.9
Total		3,611	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.5

*Percentage distribution of teachers completing graduate studies by stream of education, 2014*

Secondary	Higher secondary	bachelors	Number of teachers	% of teachers
Hum.	Hum.	Hum.	1,144	49.2
Sc.	Hum.	Hum.	274	11.8
Sc.	Sc.	Hum.	270	11.6
Sc.	Sc.	Sc.	292	12.6
Bus.	Bus.	Bus.	124	5.3
Others			219	9.5
Total			2,323	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.6

*Percentage distribution of teachers by school type and stream of education at secondary level, 2014*

School type	Humanities	Science	Business	Others	Total	n
Government	45.1	46.8	7.9	0.2	100.0	956
Newly nationalized	66.2	27.4	6.4	0.0	100.0	565
Kindergarten	61.9	25.9	11.8	0.4	100.0	1,412
Non-formal	65.8	19.9	13.0	1.2	100.0	161
Ebtedayee madrasa	83.9	7.9	3.2	5.1	100.0	316

Source: Education Watch Educational Institution Survey, 2014



## Annex 4.7

*Percentage distribution of teachers by school type and stream of education at higher secondary level, 2014*

School type	Humanities	Science	Business	Others	Total	n
Government	55.6	32.0	12.2	0.2	100.0	888
Newly nationalized	73.5	15.1	10.9	0.5	100.0	377
Kindergarten	69.5	13.4	16.5	0.6	100.0	1323
Non-formal	73.4	4.3	22.3	0.0	100.0	94
Ebtedayee madrasa	85.6	5.0	5.4	4.0	100.0	278

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.8

*Percentage distribution of teachers by school type and stream of education at bachelors' level, 2014*

School type	Humanities	Science	Business	Others	Total	n
Government	73.9	15.5	10.6	0.0	100.0	644
Newly nationalized	81.8	8.1	10.1	0.0	100.0	148
Kindergarten	79.5	8.9	11.4	0.1	100.0	797
Non-formal	100.0	0.0	0.0	0.0	100.0	12
Ebtedayee madrasa	97.4	2.0	0.7	0.0	100.0	153

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.9

*Percentage distribution of teachers by school type and stream of education at masters' level, 2014*

School type	Humanities	Science	Business	Others	Total	n
Government	71.4	18.1	10.5	0.0	100.0	248
Newly nationalized	82.6	8.7	8.7	0.0	100.0	23
Kindergarten	81.4	7.3	11.4	0.0	100.0	220
Non-formal	100.0	0.0	0.0	0.0	100.0	2
Ebtedayee madrasa	100.0	0.0	0.0	0.0	100.0	64

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.10

*Percentage distribution of teachers by stream at various levels of education, 2014*

Levels of education	Humanities	Science	Business	Others	Total	n
Secondary	53.2	36.5	9.0	0.3	100.0	4,049
Higher secondary	62.7	23.4	13.5	0.4	100.0	3,611
Bachelors	76.5	12.8	10.7	0.0	100.0	2,322
Masters	74.6	14.8	10.6	0.0	100.0	785

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.11

*Percentage distribution of teachers by stream at various levels of education, 2008*

Levels of education	Humanities	Science	Business	Others	Total	n
Secondary	67.2	28.3	3.0	1.5	100.0	
Higher secondary	70.7	20.9	7.5	0.8	100.0	
Bachelors	82.1	13.4	4.1	0.4	100.0	
Masters	83.2	13.2	2.5	1.1	100.0	

Source: Education Watch Educational Institution Survey, 2008

## Annex 4.12

*Percentage of trained teachers by school type, gender and residence, 2014*

School type	Gender		Level of significance	Residence		Level of significance	All
	Males	Females		Rural	Urban		
Government	97.7	92.3	p<0.001	93.9	95.5	ns	94.2
Newly nationalized	92.0	83.9	p<0.001	87.9	85.2	ns	87.8
Kindergarten	16.9	13.7	ns	16.0	13.9	ns	14.9
Non-formal	6.2	65.7	p<0.001	59.3	65.3	ns	59.6
Ebtedayee madrasa	8.2	1.5	p<0.05	6.9	-	na	6.9
Level of significance	p<0.001	p<0.001		p<0.001	p<0.001		p<0.001
All	66.8	65.4	ns	74.3	41.1	p<0.001	65.9

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.13

*Percentage of trained teachers in various subjects by school type, gender and residence, 2014*

School type	Gender		Level of significance	Residence		Level of significance	All
	Males	Females		Rural	Urban		
Bangla	29.2	25.7	p<0.05	30.3	17.0	p<0.001	27.0
English	37.4	28.5	p<0.001	36.0	19.1	p<0.001	31.8
Mathematics	37.4	25.9	p<0.001	34.1	18.3	p<0.001	30.1
Bangladesh & Global Studies	24.2	21.0	p<0.05	25.2	13.3	p<0.001	22.2
Primary Science	27.9	21.8	p<0.001	27.5	13.6	p<0.001	24.0
Religion & Moral Education	5.2	2.2	p<0.001	4.0	1.3	p<0.001	3.3

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.14

*Percentage of teachers having training by subjects and school type, 2014*

Subjects	School type					Level of significance
	Govern ment	Newly national	Kinderga rten	Non-formal	Ebteday ee	
Bangla	37.1	45.5	5.1	14.3	0.0	P<0.001
English	46.0	42.5	6.2	24.8	0.3	P<0.001
Mathematics	41.6	49.6	5.4	26.7	0.3	P<0.001
Bangladesh & Global Studies	30.7	40.0	2.7	11.8	0.9	P<0.001
Primary Science	34.9	38.2	2.5	8.1	0.0	P<0.001
Religion & Moral Education	3.5	5.5	2.1	6.9	0.9	P<0.001

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.15

*Percentage distribution of teachers by number of subject-based training received and year*

No. of training	Year	
	2008	2014
Nil	51.2	42.6
1	20.9	15.8
2	16.1	18.8
3	8.7	12.8
4	1.9	5.4
5	1.2	2.3
6	-	2.2
Total	100.0	100.0

Source: Education Watch Educational Institution Survey, 2008, 2014

## Annex 4.16

*Percentage of teachers received at least one subject-based training  
by school type, gender and residence, 2014*

School type	Gender		Level of significance	Residence		Level of significance	All
	Males	Females		Rural	Urban		
Government	88.3	79.2	p<0.001	81.5	85.4	ns	82.1
Newly nationalized	94.4	82.1	p<0.001	88.3	88.6	ns	88.3
Kindergarten	11.5	7.3	p<0.001	10.6	7.2	p<0.05	8.9
Non-formal	26.7	31.7	ns	32.1	21.3	ns	31.1
Ebtedayee madrasa	2.0	0.0	ns	1.6	-	na	1.6
Level of significance	p<0.001	p<0.001		p<0.001	p<0.001		
All	61.0	55.3	p<0.001	65.4	33.5	p<0.001	57.4

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.17

*Percentage distribution of teachers by type of training received, gender and residence, 2014*

Training type	Gender		Residence		All
	Males	Females	Rural	Urban	
Both	58.0	52.9	62.5	31.8	54.8
Basic	8.8	12.5	11.8	9.3	11.1
Subject-based	3.0	2.6	3.1	1.7	2.7
None	30.2	32.0	22.6	57.2	31.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.18

*Percentage distribution of teachers by type of training received and school type, 2014*

Training type	School type				
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee
Both	80.7	81.1	6.5	19.8	0.6
Basic	13.4	6.7	8.4	40.1	6.2
Subject-based	1.7	7.3	2.3	11.7	0.9
None	4.2	5.0	82.8	28.4	92.2
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.19

*Percentage distribution of teachers by attendance status, gender and residence, 2014*

Attendance status	Gender		Residence		All
	Males	Females	Rural	Urban	
Attended	90.2	88.7	88.7	91.1	89.3
Un-noticed absent	4.3	3.4	3.5	4.3	3.7
On leave	2.1	6.1	4.9	3.9	4.7
Work outside	2.1	1.0	1.7	0.3	1.4
On training	1.2	0.8	1.1	0.4	0.9
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.20

*Percentage distribution of teachers by attendance status and school type, 2014*

Attendance status	School type				
	Govern-ment	Newly national	Kinder-garten	Non-formal	Ebtedayee
Attended	87.3	88.7	92.8	98.8	80.4
Un-noticed absent	3.3	4.6	3.7	0.0	13.7
On leave	6.1	3.2	3.0	1.2	5.9
Work outside	2.1	1.4	0.4	0.0	0.0
On training	1.2	2.1	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.21

*Percentage distribution of teachers by time of presence in school, gender and residence, 2014*

Time of presence	Gender		Residence		All
	Males	Females	Rural	Urban	
Before school started	50.9	50.1	47.2	59.5	50.4
On exact time	15.3	15.9	15.7	15.4	15.7
Within 10 minutes of school started	9.3	12.4	12.2	8.7	11.3
After 10 minutes of school started	24.5	21.6	24.8	16.3	22.6
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.22

*Percentage distribution of teachers by time of presence in school and school type, 2014*

Time of presence	School type				
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee
Before school started	43.4	44.0	62.9	58.7	54.5
On exact time	15.3	13.0	16.6	29.7	17.9
Within 10 minutes of school started	14.9	7.6	7.4	3.9	12.5
After 10 minutes of school started	26.3	35.4	13.1	7.7	15.2
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.23

*Percentage of teachers came to school timely by school type, gender and residence, 2014*

School type	Gender		Level of significance	Residence		Level of significance	All
	Males	Females		Rural	Urban		
Government	59.4	58.5	ns	56.5	70.9	p<0.001	58.8
Newly nationalized	55.5	58.6	ns	56.6	64.9	p<0.05	57.0
Kindergarten	79.5	79.4	ns	81.8	77.2	p<0.05	79.4
Non-formal	100.0	87.2	ns	88.5	88.0	ns	88.5
Ebtedayee madrasa	74.4	63.0	ns	72.4	-	ns	72.4
Total	66.2	66.0	ns	63.0	75.0	p<0.001	66.1

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.24

*Percentage distribution of teachers by length of service (in years), gender and residence, 2014*

Service length (in year)	Gender		Residence		All
	Males	Females	Rural	Urban	
0 – 4	22.9	35.4	30.8	30.8	30.8
5 – 9	18.9	26.9	23.4	25.4	23.9
10 – 14	18.1	14.6	14.9	18.7	15.9
15 – 24	19.1	16.0	17.7	15.7	17.1
25+	21.1	7.1	13.2	9.3	12.2
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.25

*Percentage distribution of teachers by length of service (in years) and school type, 2014*

Service length (in year)	School type				
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee
0 – 4	24.7	14.7	47.1	40.4	23.9
5 – 9	26.8	7.6	25.7	36.6	19.3
10 – 14	17.5	8.0	15.8	17.4	28.0
15 – 24	17.8	35.6	9.1	4.3	19.3
25+	13.2	34.2	2.2	1.2	9.6
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 4.26

*Trends in percentage distribution of schools by student-teacher ratio, 1998–2014*

Student-teacher ratio	Year		
	1998	2008	2014
<25	17.7	17.4	19.9
26 – 40	29.6	37.1	38.6
41 or more	52.7	45.5	41.4
Total	100.0	100.0	100.0

Sources: Education Watch Educational Institution Surveys, 1998, 2008, 2014



## Annex 5.1

*Percentage of schools having SMC by residence, 2014*

School type	Residence			Level of significance
	Rural	Urban	Both	
Government	98.7	97.3	98.7	ns
Newly nationalized	98.7	94.7	98.7	ns
Kindergarten	73.7	82.9	77.5	ns
Non-formal	84.0	88.0	84.7	ns
Ebtedayee madrasa	96.0	-	96.0	na
All	91.9	88.3	91.5	
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.2

*Percentage of females in SMCs by school type and residence, 2014*

School type	Residence			Level of significance
	Rural	Urban	Both	
Government	40.3	45.4	40.7	p<0.05
Newly nationalized	34.4	39.6	34.6	p<0.05
Kindergarten	18.0	17.2	17.7	ns
Non-formal	65.7	71.8	66.2	p<0.05
Ebtedayee madrasa	4.0	-	4.0	na
All	41.8	37.1	41.3	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.3

*Percentage distribution of schools by gender composition in SMCs, school type and residence, 2014*

Gender composition	School type					Residence		All
	Government	Newly national.	Kindergarten	Non-formal	Ebtedayee	Rural	Urban	
More Male	86.4	96.6	95.2	11.9	100.0	69.6	65.9	69.2
Equal	2.7	0.0	1.9	3.2	0.0	2.0	3.5	2.1
More Female	10.9	3.4	2.8	84.9	0.0	28.4	30.6	28.7

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.4

*Percentage of non-Muslim members in the SMCs by school type and residence, 2014*

School type	Residence			Level of significance
	Rural	Urban	Both	
Government	11.4	11.5	11.4	ns
Newly nationalized	10.0	11.7	10.1	ns
Kindergarten	7.6	8.1	7.8	ns
Non-formal	13.2	5.1	12.5	p<0.001
Ebtedayee madrasa	0.0	-	0.0	na
All	10.9	8.8	10.6	p<0.01
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.5

*Cumulative percentage distribution of educational qualification of SMC members by gender and residence, 2014*

Level of education	Gender			Residence			All
	Males	Females	Level of significance	Rural	Urban	Level of significance	
All	100.0	100.0		100.0	100.0		100.0
5 years or more	96.8	90.7	p<0.001	94.2	95.5	p<0.001	94.3
8 years or more	81.8	66.1	p<0.001	74.0	85.9	p<0.001	75.3
10 years or more	63.6	46.3	p<0.001	54.0	76.9	p<0.001	56.4
12 years or more	45.5	28.8	p<0.001	36.0	61.5	p<0.001	38.6
14 years or more	32.7	15.3	p<0.001	22.8	48.7	p<0.001	25.5
16 years	11.8	5.2	p<0.001	7.5	22.7	p<0.001	9.1

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.6

*Cumulative percentage distribution of educational qualification of SMC members by school type, 2014*

Level of education	School type					
	Government	Newly national	Kindergarten	Non-formal	Ebtedayee	Level of significance
All	100.0	100.0	100.0	100.0	100.0	P<0.001
5 years or more	97.6	96.6	99.6	82.6	94.6	P<0.001
8 years or more	83.1	76.0	97.6	48.5	76.2	P<0.001
10 years or more	62.1	54.4	90.8	30.8	57.3	P<0.001
12 years or more	43.1	34.2	77.0	16.0	42.0	P<0.001
14 years or more	31.1	18.8	59.2	6.2	29.0	P<0.001
16 years	10.1	5.1	28.5	1.7	14.1	P<0.001

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.7

*Percentage distribution of SMC members by type of membership and school type, 2014*

Type of SMC membership	School type					All
	Governm ent	Newly national.	Kinderg arten	Non- formal	Ebteday ee	
Teachers' representative	16.6	16.1	14.3	7.2	12.8	14.1
Guardians' representative	34.7	33.5	31.1	52.2	31.8	37.6
Founding member	0.5	0.1	4.9	1.0	3.3	1.0
Land donator/representative	7.9	8.4	4.8	1.1	14.2	6.4
Person interested in education	15.9	15.9	11.8	13.5	11.3	14.8
Selected by higher authority	6.5	9.5	16.5	11.3	12.9	9.5
Elected member	6.3	4.8	5.8	3.7	5.0	5.3
Ex-officio	11.8	11.7	10.7	10.0	8.7	11.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.8

*Percentage of females in SMCs by type of membership and residence, 2014*

Type of SMC membership	Residence		All
	Rural	Urban	
Teachers' representative	42.9	46.6	43.3
Guardians' representative	54.1	48.1	53.5
Founding member	23.3	14.0	21.0
Land donator/representative	8.6	14.8	8.9
Person interested in education	41.9	33.0	41.2
Selected by higher authority	30.3	27.0	29.7
Elected member	29.4	22.2	28.4
Ex-officio	33.0	34.3	33.1
Total	41.8	39.1	41.3

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.9

*Cumulative percentage distribution of level of education of SMC members and mean years of schooling by membership type, 2014*

Type of SMC membership	Level of education					Mean years of schooling
	5 yrs.+	8 yrs.+	10 yrs.+	12 yrs.+	14 yrs.+	
Teachers' representative	100.0	99.6	98.6	84.2	62.5	13.3
Guardians' representative	89.7	59.8	34.6	16.6	8.4	8.0
Founding member	90.3	80.6	68.9	50.8	32.8	10.7
Land donator/representative	97.6	74.3	48.1	30.5	19.2	9.4
Person interested in education	95.8	81.2	58.9	35.0	20.5	9.9
Selected by higher authority	94.6	74.8	57.4	45.1	35.2	10.2
Elected member	96.4	73.4	46.1	24.1	13.2	9.0
Ex-officio	98.5	91.1	81.0	65.0	43.7	11.9
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.10

*Percentage distribution of SMC members by occupation, gender and residence, 2014*

Occupation	Gender		Residence		All
	Males	Females	Rural	Urban	
Agriculture	21.8	0.2	14.1	2.6	12.9
Salaried job	9.2	4.2	6.1	16.0	7.2
Business	28.8	0.6	16.4	24.0	17.2
Day labour	1.1	0.1	0.7	0.8	0.7
Teaching	27.0	25.0	25.9	27.6	26.1
Social work	9.7	2.0	6.6	6.0	6.5
Household work	0.1	67.7	28.8	21.1	28.0
Others	2.3	0.2	1.4	1.9	1.5
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.11

*Percentage distribution of SMC members by occupation and school type, 2014*

Occupation	School type					All
	Government	Newly national.	Kindergarten	Non-formal	Ebtedayee	
Agriculture	12.4	16.6	4.3	11.4	32.8	12.9
Salaried job	7.6	6.0	16.4	2.8	10.8	7.2
Business	17.4	17.3	28.1	10.3	24.0	17.2
Day labour	0.1	0.5	0.0	2.2	1.2	0.7
Teaching	27.7	27.0	37.4	17.1	22.4	26.1
Social work	8.3	6.4	5.0	4.2	5.1	6.5
Household work	25.4	24.8	6.5	50.3	1.7	28.0
Others	1.1	1.4	2.3	1.7	2.0	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.12

*Some basic information about the head teachers by school type and residence, 2014*

Indicators	School type				Residence		All
	Govern- ment	Newly national.	Kinder- garten	Ebteda- yee	Rural	Urban	
No head teacher (% of school)	2.7	4.0	2.2	4.0	3.4	1.4	3.2
% of Female heads	44.5	20.1	23.0	2.8	31.0	34.4	30.4
Small ethnic group (% of heads)	3.4	1.4	0.0	0.0	2.4	0.0	2.2
% of non-Muslim heads	14.3	9.8	8.2	0.0	12.2	7.1	11.5

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.13

*Percentage distribution of head teachers by level of education, 2014*

Level of education	School type				Residence		All
	Government	Newly national.	Kinder-garten	Ebtada yee	Rural	Urban	
Secondary	2.7	20.3	0.0	0.0	8.4	1.4	7.5
Higher secondary	6.8	39.9	12.6	6.9	19.9	7.5	18.4
Bachelor's	47.3	32.9	51.1	31.9	42.7	46.5	43.2
Masters	43.2	7.0	36.3	61.1	29.0	44.6	30.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.14

*Percentage distribution of head teachers by stream of education at various levels of education, 2014*

Level of education	Stream of education			Total
	Humanities	Science	Business	
Secondary	54.6	35.7	9.7	100.0
Higher secondary	60.0	26.4	13.6	100.0
Bachelor's	76.0	11.4	12.6	100.0
Masters	82.1	7.4	10.5	100.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.15

*Percentage of head teachers received training on various subjects by gender and residence, 2014*

Subjects	Gender			Residence			All
	Males	Females	Level of significance	Rural	Urban	Level of significance	
Bangla	43.4	38.2	ns	44.1	26.4	p<0.001	41.8
English	50.1	45.2	ns	50.7	33.4	p<0.001	48.6
Mathematics	46.1	48.4	ns	49.7	26.4	p<0.001	46.8
Bangladesh & Global Studies	34.1	36.1	ns	37.1	19.3	p<0.001	34.7
Primary Science	33.5	33.1	ns	35.5	19.3	p<0.001	33.4
Religion & Moral Education	6.1	2.5	ns	5.2	3.8	ns	5.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.16

*Percentage distribution of schools by issues discussed in SMC meeting and residence, 2014*

Issues discussed	Residence		Both
	Rural	Urban	
Students' absenteeism	43.4	33.4	42.3
Quality of education	23.2	38.3	24.9
Physical facility related	42.6	35.5	41.9
In school examination	14.6	13.1	14.4
PECE and model test	37.4	31.6	36.8
Teacher appointment	3.5	7.0	3.9
Upabritti	15.9	2.0	14.4
Various programmes	9.8	10.1	9.8
Public awareness raising	10.7	7.7	10.4
Admission of students'	3.7	12.4	4.6
Textbook distribution	3.8	1.0	3.5
Communication with parents	3.1	6.2	3.4
Others	32.7	39.5	33.4

Multiple responses counted

Source: Education Watch Educational Institution Survey, 2014

## Annex 5.17

*Percentage distribution of schools by issues discussed in SMC meeting and residence, 2014*

Issues discussed	School type				
	Government	Newly nationalized	Kindergarten	Non-formal	Ebtedayee madrasa
Students' absenteeism	41.3	35.9	16.3	58.7	33.3
Quality of education	11.4	13.5	58.9	40.0	24.6
Physical facility related	53.9	49.1	48.1	15.8	71.0
In school examination	19.6	15.5	9.0	9.8	0.0
PECE and model test	43.9	45.8	27.0	24.5	21.7
Teacher appointment	5.4	1.4	13.8	0.0	10.1
Upabritti	21.7	23.7	1.3	2.0	11.6
Various programmes	15.4	11.0	8.2	1.5	18.8
Public awareness raising	4.1	2.9	0.0	29.2	1.4
Admission of students'	2.9	5.3	16.6	1.6	10.1
Textbook distribution	3.9	1.6	0.0	6.0	0.0
Communication with parents	0.0	0.0	4.3	10.7	0.0
Others	25.9	31.7	39.0	41.3	49.3

Multiple responses counted

Source: Education Watch Educational Institution Survey, 2014



## Annex 6.1

*Percentage distribution of primary students by grade, gender and residence, 2013*

Grade	Gender		Residence		All
	Boys	Girls	Rural	Urban	
I	21.3	21.3	21.4	21.1	21.3
II	23.9	20.7	22.2	22.4	22.2
III	21.6	21.0	21.5	19.8	21.3
IV	17.3	18.5	18.0	17.5	17.9
V	16.0	18.4	16.9	19.2	17.3
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Household Survey, 2013

## Annex 6.2

*Trends in adjusted net enrolment rate by gender and residence, 1998–2013*

	Years				
	1998	2000	2005	2008	2013
All	71.4	74.6	78.4	76.3	80.6
Boys	69.5	74.0	76.4	74.2	78.2
Girls	73.5	75.1	80.6	78.7	83.1
Rural	71.1	74.5	78.2	76.2	80.6
Urban	73.4	74.8	79.6	77.3	80.1

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013

## Annex 6.3

*Age specific net enrolment rate by gender and residence, 2013*

Age (in year)	Gender		Residence		All
	Boys	Girls	Rural	Urban	
6	83.9	87.9	85.3	88.5	85.9
7	95.3	94.8	95.0	95.3	95.1
8	95.7	96.9	96.3	96.9	96.4
9	97.2	98.4	97.6	98.7	97.8
10	94.4	98.3	95.9	97.8	96.2
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Household Survey, 2013

## Annex 6.4

*Net enrolment rate by Mothers' education, gender and residence, 2013*

Mothers education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Nil	88.9	91.1	89.7	92.6	90.0
1 – 4 yrs.	95.5	96.1	95.8	96.1	95.8
5 – 9 yrs.	95.2	98.0	96.8	95.9	96.6
10 yrs.+	98.2	96.8	97.8	97.1	97.5
Level of significance	p<0.001	p<0.001	p<0.001	ns	p<0.001

Source: Education Watch Household Survey, 2013

## Annex 6.5

*Net enrolment rate by fathers' education, gender and residence, 2013*

Fathers education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Nil	89.0	93.3	91.0	91.4	91.0
1 – 4 yrs.	94.6	96.7	95.2	98.8	95.6
5 – 9 yrs.	96.7	96.4	96.8	95.4	96.5
10 yrs.+	98.4	97.2	98.0	97.5	97.8
Level of significance	p<0.001	p<0.001	p<0.001	p<0.01	p<0.001

Source: Education Watch Household Survey, 2013

## Annex 6.6

*Net enrolment rate by household food security status, gender and residence, 2013*

HH food security status	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Always in deficit	84.6	88.7	85.7	100.0	86.6
Sometimes in deficit	90.0	94.2	91.7	95.6	92.1
Balance	94.0	94.4	94.2	94.3	94.2
Surplus	96.7	97.9	97.7	96.0	97.3
Level of significance	p<0.001	p<0.001	p<0.001	ns	p<0.001

Source: Education Watch Household Survey, 2013

## Annex 6.7

*Net enrolment rate by religion, gender and residence, 2013*

Religion	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Muslim	93.2	95.2	94.0	95.3	94.2
Non-Muslim	94.2	95.9	94.6	97.0	95.0
Significance	ns	ns	ns	ns	ns

Source: Education Watch Household Survey, 2013

## Annex 6.8

*Net enrolment rate by availability of ethnicity, gender and residence, 2013*

Ethnicity	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Bangali	93.2	95.3	94.0	95.5	94.2
Others	98.0	95.8	96.8	100.0	96.9
Significance	ns	ns	ns	ns	ns

Source: Education Watch Household Survey, 2013

## Annex 6.9.

*Net enrolment rate by availability of electricity at home, gender and residence, 2013*

Availability of electricity	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Available	94.5	96.1	95.2	95.4	95.3
Not	90.9	93.6	92.1	97.0	92.2
Significance	p<0.001	p<0.01	p<0.001	ns	p<0.001

Source: Education Watch Household Survey, 2013

## Annex 6.10.

*Net enrolment rate by distance between home and nearest primary school, gender and residence, 2013*

Distance	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Within 0.5 km.	92.9	95.1	93.6	95.7	94.0
0.6 – 1.0 km	93.4	96.3	95.0	93.2	94.8
More than 1.0 km	100.0	94.9	97.5	100.0	97.7
Level of significance	p<0.01	ns	p<0.05	ns	ns

Source: Education Watch Household Survey, 2013

## Annex 6.11

*Estimation of out-of-school children aged 6–10 years, 1998–2013*

Year	Population aged 6–10 years	% of out of school children			Out of school
		Never enrolled	Dropped out	Total	
1998	1,66,52,579	20.9	2.1	23.0	38,30,093
2000	1,67,36,155	17.8	2.4	20.2	33,80,703
2005	1,69,46,511	11.0	2.2	13.2	22,36,939
2008	1,70,72,332	12.1	1.5	13.6	23,21,837
2013	1,72,87,130	4.9	0.8	5.7	9,85,366

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013  
Various reports of Bangladesh Bureau of Statistics

## Annex 6.12

*Estimation of out-of-school children aged 11–14 years, 1998–2013*

Year	Population aged 11–14 years	% of out of school children			Out of school
		Never enrolled	Dropped out	Total	
1998	1,22,48,240	13.1	14.1	27.2	3,331,521
2000	1,26,18,998	11.5	14.8	26.3	3,318,796
2005	1,35,83,832	5.0	18.6	23.6	3,205,784
2008	1,41,95,924	3.8	14.6	18.4	2,612,050
2013	1,52,80,279	2.5	9.4	11.9	1,818,353

Sources: Education Watch Household Surveys, 1998, 2000, 2005, 2008, 2013  
Various reports of Bangladesh Bureau of Statistics

## Annex 6.13

*Measurement of variables used in logistic regression analysis*

Variables	Measurement
<i>Dependent variable</i>	
Enrolment	1 = currently enrolled, 0 = not enrolled
<i>Explanatory variables</i>	
Age	1 = 6 yrs., 2 = 7 yrs., 3 = 8 yrs., 4 = 9 yrs., 5 = 10 yrs.
Gender	1 = boys, 2 = girls
Residence	1 = rural, 2 = urban
Mothers' education	1 = nil, 2 = 1–4 yrs., 3 = 5–9 yrs., 4 = 10 yrs.+
Fathers' education	1 = nil, 2 = 1–4 yrs., 3 = 5–9 yrs., 4 = 10 yrs.+
Religion	1 = Muslim, 2 = Non-Muslim
Ethnicity	1 = small ethnic groups, 2 = Bangali
Household food security status	1 = always in deficit, 2 = sometimes in deficit, 3 = breakeven, 4 = surplus
Electricity availability at home	1 = not available, 2 = available
Distance from home to nearest school	1 = within 0.5 km., 2 = 0.6 – 1.0 km., 3 = 1 km.+

## Annex 6.14

*Background characteristics of children aged 6-10 years, 2013*

Background	% of children	Background	% of children
Age		HH food security status	
6 yrs.	19.3	Always in deficit	5.9
7 yrs.	20.1	Sometimes in deficit	25.2
8 yrs.	20.0	Balance	34.4
9 yrs.	18.0	Surplus	34.6
10 yrs.	22.6	Electricity at home	
Fathers' education		Available	67.8
Nil	41.8	Not available	32.2
1 – 4 yrs.	14.4	Religion	
5 – 9 yrs.	29.2	Muslim	87.5
10 yrs.+	14.6	Others	12.5
Mothers' education		Ethnicity	
Nil	33.9	Bangali	98.0
1 – 4 yrs.	17.3	Others	2.0
5 – 9 yrs.	39.3	Distance to school	
10 yrs.+	9.5	Within 0.5 km.	79.7
Parental education		0.6 – 1.0 km	16.0
None ever schooled	25.3	More than 1.0 km	4.3
At one ever schooled	24.9		
Both ever schooled	49.8		

Distance between home and nearest primary school

Source: Education Watch Household Survey, 2013

## Annex 6.15

*Percentage distribution of children aged six years by level of education currently enrolled, gender and residence, 2013*

Level of education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Pre-primary	37.3	35.6	36.2	38.2	36.5
Primary	43.6	50.3	46.9	47.1	46.9
Non-graded madrasa	2.9	1.9	2.3	3.2	2.4
Out-of-school	16.2	12.2	14.6	11.5	14.2

Source: Education Watch Household Surveys, 2013

## Annex 6.16

*Students' attendance rate by grade and gender, 2014*

Grade	Gender		Both
	Boys	Girls	
Pre-primary	71.6	73.5	72.5
Grade I	71.5	73.7	72.6
Grade II	72.4	76.7	74.5
Grade III	70.8	75.9	73.4
Grade IV	70.4	75.2	72.9
Grade V	79.2	83.7	81.6
All	72.4	76.4	74.4
Without PP	72.5	76.8	74.7

Source: Education Watch Educational Institution Survey, 2014

## Annex 6.17

*Students' attendance rate by school type and gender, 2014*

School type	Gender		Both
	Boys	Girls	
Government	70.0	74.7	72.4
Newly nationalized	68.6	73.6	71.2
Kindergartens	82.4	84.4	83.3
Non-formal	88.6	90.0	89.4
Ebtedayee madrasa	63.4	66.8	65.0
All	72.4	76.4	74.4

Source: Education Watch Educational Institution Survey, 2014

## Annex 6.18

*Mean number of students registered, can seat with ease in classroom and attended in school by school type*

School type	Mean number of students...		
	Registered	Can seat with ease	Attended in school
Government	54.3	44.8	39.4
Newly nationalized	39.3	35.3	28.0
Kindergartens	37.2	39.8	31.0
Non-formal	26.6	29.7	23.8
Ebtedayee madrasa	26.7	23.2	17.4
All	44.4	39.6	33.1

Source: Education Watch Educational Institution Survey, 2014

## Annex 6.19

*Mean number of students registered, can seat with ease in classroom and attended in school by school type and residence*

School type	Mean number of students...		
	Registered	Can seat with ease	Attended in school
<i>Rural area</i>			
Government	52.6	43.7	38.3
Newly nationalized	39.0	35.2	28.0
Kindergartens	34.7	36.9	28.7
Non-formal	26.4	29.7	23.6
Ebtedayee madrasa	26.7	23.2	17.4
All	43.5	38.6	32.3
<i>Urban area</i>			
Government	75.7	58.6	52.6
Newly nationalized	44.4	36.8	27.8
Kindergartens	40.7	43.7	34.0
Non-formal	29.9	29.8	26.5
Ebtedayee madrasa	-	-	-
All	49.9	46.3	38.0

Source: Education Watch Educational Institution Survey, 2014

## Annex 7.1

*Trends in promotion, dropout and repetition rates by school type, 1998–2014*

Grade	Percentage of students			Total
	Promoted	Dropped out	Repeated	
<b>Government</b>				
1998	86.4	5.8	7.8	100.0
2000	87.5	4.7	7.8	100.0
2008	77.7	10.3	12.0	100.0
2014	92.0	1.1	6.9	100.0
<b>Newly nationalized</b>				
1998	83.8	5.6	10.6	100.0
2000	85.3	5.2	9.5	100.0
2008	74.2	14.7	11.1	100.0
2014	90.9	1.6	7.5	100.0
<b>Non-formal</b>				
1998	94.3	2.9	2.8	100.0
2000	96.3	3.3	0.4	100.0
2008	-	-	-	-
2014	98.0	1.7	0.3	100.0
<b>Ebtedayee madrasa</b>				
1998	81.3	9.8	8.9	100.0
2000	82.3	7.8	9.9	100.0
2008	72.6	19.4	8.0	100.0
2014	89.6	4.6	5.8	100.0

Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

## Annex 7.2

*Survival, completion and dropout rates by residence and school type, 2013–14*

Indicators	School type				
	Government	Newly nationalized	Kindergarten	Non-formal	Ebtedayee madrasa
<b>Rural areas</b>					
Survival rate	94.8	70.0	51.1	87.2	46.1
Completion rate	87.7	62.8	43.6	85.4	36.8
Dropout rate	12.3	37.2	56.4	14.6	63.2
<b>Urban areas</b>					
Survival rate	90.3	73.8	72.7	96.8	
Completion rate	80.6	67.8	63.0	87.2	
Dropout rate	19.4	32.2	37.0	12.8	

Source: Education Watch Educational Institution Survey, 2014



## Annex 7.3

*Trends in survival and completion rates by gender and residence, 1998–2014*

Indicators	Year			
	1998	2000	2008	2014
<i>Boys</i>				
Survival rate	76.0	78.5	56.5	81.3
Completion rate	72.0	73.5	48.3	72.4
<i>Girls</i>				
Survival rate	77.2	81.0	60.2	90.5
Completion rate	73.4	76.2	51.9	85.9
<i>Rural</i>				
Survival rate	-	79.1	55.8	86.9
Completion rate	-	73.8	47.6	79.7
<i>Urban</i>				
Survival rate	-	82.6	77.8	86.3
Completion rate	-	78.8	69.2	77.1

Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

## Annex 7.4

*Trends in survival and completion rates by school type, 1998–2014*

Indicators	Year			
	1998	2000	2008	2014
<i>Government</i>				
Survival rate		80.8	59.4	88.4
Completion rate	72.0	76.1	53.1	86.3
<i>Newly nationalized</i>				
Survival rate		78.3	48.7	70.3
Completion rate	71.0	73.0	39.7	63.3
<i>Non-formal</i>				
Survival rate		88.3	-	88.4
Completion rate		82.6	-	86.8
<i>Ebtedayee madrasa</i>				
Survival rate		70.0	37.9	46.1
Completion rate	58.5	63.4	31.5	36.8

Sources: Education Watch Educational Institution Surveys, 1998, 2000, 2008, 2014

## Annex 7.5

*Pupil years invested per graduates and coefficient of efficiency by residence and school type, 20013-14*

Indicators	School type				
	Government	Newly nationalized	Kindergarten	Non-formal	Ebtedayee madrasa
<i>Rural schools</i>					
Pupil years invested per graduate	6.4	7.6	9.2	5.7	10.4
Coefficient of efficiency	78.2	66.2	51.6	87.9	48.1
<i>Urban schools</i>					
Pupil years invested per graduate	6.9	7.0	7.2	5.6	
Coefficient of efficiency	72.5	71.3	69.1	88.6	
<i>Both areas</i>					
Pupil years invested per graduate	6.5	7.5	8.2	5.6	10.4
Coefficient of efficiency	77.1	66.6	61.0	89.1	48.1

Source: Education Watch Educational Institution Survey, 2014

## Annex 8.1

*Competencies, test items and minimum levels for qualifying in Bangla*

Competency	Test items	Minimum level for competency achievement
Reading	<ul style="list-style-type: none"> <li>• Answer two questions from a printed paragraph</li> <li>• Answer two questions from a handwritten paragraph</li> </ul>	Answer one correctly Answer one correctly
Writing	<ul style="list-style-type: none"> <li>• Describe a given scenery in four sentences</li> <li>• Describe own home in four sentences</li> <li>• Fill out a form with eight blanks (any six is acceptable)</li> <li>• Write an application with date, salutation, and closing (message with any two acceptable)</li> </ul>	Answer correctly any three on the left
Listening	Answer two MCQ questions based on a pre-recorded paragraph	Answer one correctly

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.2

*Competencies, test items and minimum levels for qualifying in English*

Competency	Test items	Minimum level for competency achievement
Reading	<ul style="list-style-type: none"> <li>• Answer two questions from a printed paragraph</li> <li>• Answer two questions from a handwritten paragraph</li> </ul>	Answer one correctly Answer one correctly
Writing	<ul style="list-style-type: none"> <li>• Describe a given picture in five sentences</li> </ul>	Write three sentences
Listening	Answer two MCQ questions based on a pre-recorded dialogue between two friends	Answer one correctly

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.3

*Competencies, test items and minimum levels for qualifying in Mathematics*

Competency	Test items	Minimum level for competency achievement
Basic numbers	<ul style="list-style-type: none"> <li>• Arrange four given numbers in ascending order</li> <li>• Identify the largest from four given digits</li> </ul>	Answer correctly any one of the items on the left.
Four basic rules	<ul style="list-style-type: none"> <li>• An addition</li> <li>• A subtraction</li> <li>• A multiplication</li> <li>• A division</li> <li>• A simplification</li> </ul>	Do the simplification correctly or any three of the four others
Problem solving	Four sums needing skills on <ul style="list-style-type: none"> <li>• Basic arithmetic operation</li> <li>• Unitary method</li> <li>• Percentage</li> <li>• Graph</li> </ul>	Answer correctly any two of the items on the left
Measurement units	<ul style="list-style-type: none"> <li>• Convert 5 hours and 25 minutes to seconds</li> <li>• Find the length of a pencil</li> </ul>	Answer correctly any one of the items on the left
Geometric figures	<ul style="list-style-type: none"> <li>• Find the number of triangles and rectangles in a figure</li> <li>• Identify four geometric figures</li> </ul>	Answer correctly any one of the items on the left

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.4

*Competencies, test items and minimum levels for qualifying in Bangladesh & Global Studies*

Competency	Test items	Minimum level for competency achievement
Duties as family member	<ul style="list-style-type: none"> <li>• How a family becomes a happy family</li> <li>• Responsibility of family members</li> </ul>	Answer correctly any one of the items on the left
Duties as a member of the society	<ul style="list-style-type: none"> <li>• Responsibility as a member of the society</li> <li>• Why one should not play radio/TV loudly</li> </ul>	Answer correctly any one of the items on the left
Duties as citizen of Bangladesh	<ul style="list-style-type: none"> <li>• Responsibility as a citizen</li> <li>• Eligibility to vote in national elections</li> </ul>	Answer correctly any one of the items on the left
Knowledge about the country	<ul style="list-style-type: none"> <li>• Independence day</li> <li>• Major transportation system</li> <li>• Place of highest rainfall</li> </ul>	Answer correctly any two of the items on the left
Manners with other people	<ul style="list-style-type: none"> <li>• Right manners with teachers</li> <li>• Right manners with younger siblings</li> </ul>	Answer correctly any one of the items on the left
Knowledge about children of other countries	<ul style="list-style-type: none"> <li>• Main food of the children of Maldives</li> <li>• Popular games in Nepal</li> </ul>	Answer correctly any one of the items on the left

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.5

*Competencies, test items and minimum levels for Primary Science*

Competency	Test items	Minimum level for competency achievement
Knowledge about importance of good health	<ul style="list-style-type: none"> <li>• How good health is achieved</li> <li>• Why one takes carbohydrate</li> </ul>	Answer correctly any of the items on the left
Knowledge about physical and environmental health	<ul style="list-style-type: none"> <li>• Which tube well water is safe</li> <li>• How diarrhoea spreads</li> </ul>	Answer correctly any of the items on the left
Knowledge of balanced diet	<ul style="list-style-type: none"> <li>• What is a balanced diet</li> <li>• Why should adolescents take extra food</li> </ul>	Answer correctly any of the items on the left
Knowledge about prevention of common illnesses	<ul style="list-style-type: none"> <li>• Transmission of worms</li> <li>• Skin diseases</li> </ul>	Answer correctly any of the items on the left
Information collection ability	<ul style="list-style-type: none"> <li>• What is the fastest mass media</li> <li>• Highest and lowest temperatures during summer</li> </ul>	Answer correctly any of the items on the left
Observation skills	<ul style="list-style-type: none"> <li>• Which tree has no branch</li> <li>• Plant without a flower</li> </ul>	Answer correctly any of the items on the left
Scientific investigation	<ul style="list-style-type: none"> <li>• Identification of preventive measures for given illness</li> <li>• Identify effects of over population</li> </ul>	Answer correctly any of the items on the left
Cause and effect relationship	<ul style="list-style-type: none"> <li>• Energy that causes a boiling kettle lid to move up</li> <li>• Energy which drives a bullock cart</li> </ul>	Answer correctly any of the items on the left
Everyday science	<ul style="list-style-type: none"> <li>• What is information communication</li> <li>• What are modern agricultural technologies</li> </ul>	Answer correctly any of the items on the left

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.6

*Competency, test item and minimum level for qualifying in Religion & Moral Education*

Competency	Test items	Minimum level for competency achievement
Life sketch of Prophet Mohammed (SM) or the preachers of own religion	Write five sentences on the life of any one of the following: Mohammed (SM), Jesus Christ, Goutam Buddha and Shree Ramakrishna.	Correctly writing three sentences

Source: Nath and Chowdhury (2001). *A question of quality*, Education Watch Report 2000

## Annex 8.7

*Percentage distribution of students by number of competencies achieved, gender and residence, 2014*

Number of competencies	Gender		Residence		All
	Boys	Girls	Rural	Urban	
0	0.0	0.0	0.0	0.0	0.0
1	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0
4	0.2	0.0	0.1	0.1	0.1
5	0.1	0.1	0.1	0.1	0.1
6	0.3	0.3	0.3	0.2	0.3
7	0.2	0.0	0.1	0.1	0.1
8	0.6	0.4	0.6	0.0	0.5
9	0.8	0.9	1.0	0.3	0.9
10	1.3	0.9	1.3	0.2	1.1
11	1.7	1.7	2.0	0.4	1.7
12	1.5	1.2	1.5	0.5	1.3
13	2.4	3.1	3.1	0.7	2.7
14	3.0	2.0	2.8	1.0	2.5
15	3.1	3.1	3.4	1.7	3.1
16	5.7	4.7	5.7	2.5	5.2
17	4.5	3.4	3.9	4.3	4.0
18	7.4	6.6	7.2	6.3	7.0
19	7.7	7.6	7.7	7.5	7.7
20	9.7	9.9	10.0	9.0	9.8
21	9.0	7.9	8.3	9.2	8.5
22	8.6	9.9	9.1	10.3	9.3
23	8.9	10.0	9.0	11.6	9.4
24	8.1	10.1	9.0	9.4	9.1
25	8.0	7.6	7.0	11.7	7.8
26	5.7	6.5	5.6	8.6	6.1
27	1.4	1.9	1.1	4.2	1.6
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.8

*Percentage distribution of students by number of competencies achieved and school type, 2014*

Number of competencies	School type				
	Government	Newly nationalized	Kindergarten	Non-formal	Ebtedayee madrasa
0	0.0	0.0	0.0	0.0	0.2
1	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0
4	0.2	0.1	0.0	0.0	0.3
5	0.0	0.3	0.0	0.1	0.2
6	0.2	0.6	0.1	0.0	0.3
7	0.2	0.0	0.0	0.2	0.5
8	0.2	1.3	0.0	0.3	1.0
9	0.8	1.6	0.0	0.5	3.2
10	0.7	2.8	0.1	0.8	3.0
11	1.8	2.6	0.1	0.5	3.4
12	0.9	2.9	0.3	0.8	3.0
13	2.2	5.4	0.3	2.1	6.2
14	2.3	3.7	0.5	2.8	4.7
15	3.2	3.7	0.3	4.2	7.4
16	4.9	7.5	1.3	4.9	8.2
17	3.2	6.9	1.0	5.4	8.4
18	7.3	8.5	1.6	6.7	8.2
19	8.3	7.4	3.8	9.5	7.9
20	10.0	10.4	6.0	13.7	8.1
21	9.0	7.0	6.3	13.6	7.9
22	10.2	7.0	8.6	11.0	6.6
23	10.2	6.5	11.6	9.0	4.9
24	8.8	7.3	16.7	6.2	3.9
25	7.6	4.7	17.7	4.5	1.2
26	6.2	1.6	17.9	3.0	1.2
27	1.6	0.3	5.9	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.9

*Mean number of competencies achieved by school type and gender, 2014*

School type	Gender		All	Level of significance
	Boys	Girls		
Government	20.1	20.6	20.4	p<0.05
Newly nationalized	18.2	18.3	18.3	ns
Kindergarten	23.2	23.6	23.4	p<0.01
Non-formal	20.0	19.7	19.9	ns
Ebtedayee madrasa	17.2	17.2	17.2	na
All	19.9	20.3	20.1	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.10

*Mean number of competencies achieved by school type and residence, 2014*

School type	Residence		All	Level of significance
	Rural	Urban		
Government	20.0	21.9	20.4	p<0.001
Newly nationalized	18.2	19.1	18.3	p<0.001
Kindergarten	23.4	23.3	23.4	ns
Non-formal	19.9	19.5	19.9	p<0.05
Ebtedayee madrasa	17.2	-	17.2	na
All	19.8	21.6	20.1	p<0.001
Level of significance	p<0.001	p<0.001	p<0.01	

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.11

*Trends in competencies achievement by student groups, 2000-14*

Student groups	Years		
	2000	2008	2014
<i>School type</i>			
Government	16.1	19.0	20.4
Newly nationalized	15.2	18.0	18.3
Non-formal	17.2	20.0	19.9
Ebtedayee madrasa	-	15.2	17.2
High school	-	20.8	-
High madrasa	-	17.0	-
Kindergarten	-	-	23.4
All	16.1	18.7	20.1

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014



## Annex 8.12

*Trends in competencies achievement by school type and residence, 2000-14*

School type	Years			Improvement 2000-14
	2000	2008	2014	
<i>Government</i>				
Rural	15.3	18.6	20.0	4.7
Urban	19.2	20.2	21.9	0.5
<i>Newly nationalized</i>				
Rural	14.1	18.0	18.2	4.1
Urban	19.8	18.4	19.1	-0.7
<i>Non-formal</i>				
Rural	17.1	19.8	19.9	2.8
Urban	17.7	21.3	19.5	1.8

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.13

*Trends in competencies achievement by school type and gender, 2000-14*

School type	Years			Improvement 2000-14
	2000	2008	2014	
<i>Government</i>				
Boys	16.8	19.7	20.8	4.0
Girls	15.4	18.4	21.1	5.7
<i>Newly nationalized</i>				
Boys	15.4	18.4	18.7	3.3
Girls	15.0	17.7	18.6	3.6
<i>Non-formal</i>				
Boys	17.9	20.1	19.8	1.9
Girls	16.9	19.9	19.6	2.7

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.14

*Average competencies achievement in percentage terms by subjects, 2014*

Subjects	Number of competencies under test	Mean number of competencies achieved	Achievement in percentage
Bangla	3	2.21	73.7
English	3	1.86	62.0
Mathematics	5	3.46	69.2
Bangladesh & Global Studies	6	4.72	78.7
Primary Science	9	7.50	83.3
All	27	20.12	74.5

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.15

*Mean number of competencies achieved and its percentage of number of competencies under test by subject, gender and residence, 2014*

Subjects	Number of competencies	Mean number of competencies achieved				Achievement in percentage			
		Gender		Residence		Gender		Residence	
		Boys	Girls	Rural	Urban	Boys	Girls	Rural	Urban
Bangla	3	2.12	2.29	2.17	2.40	70.7	76.3	72.3	80.0
English	3	1.83	1.89	1.83	1.98	61.0	63.0	61.0	66.0
Mathematics	5	3.53	3.38	3.40	3.76	70.6	67.6	68.0	75.2
Bangladesh & Global Studies	6	4.68	4.75	4.65	5.03	78.0	79.2	77.5	83.8
Primary Science	9	7.43	7.56	7.43	7.83	82.6	84.0	82.6	87.0
All	27	19.93	20.31	19.83	21.58	73.8	75.2	73.4	79.9

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.16

*Mean number of competencies achieved and its percentage of number of competencies under test by subject and school type, 2014*

Subjects	School type				
	Government	Newly national.	Kindergarten	Non-formal	Ebtedayee
<i>Mean</i>					
Bangla	2.30	1.82	2.63	2.15	1.81
English	1.86	1.74	2.13	1.81	1.56
Mathematics	3.52	2.93	4.41	3.44	2.66
Bangladesh & Global Studies	4.76	4.36	5.35	4.63	4.10
Primary Science	7.54	7.09	8.21	7.49	6.89
All	20.35	18.27	23.39	19.85	17.18
<i>Percentage</i>					
Bangla	76.7	60.7	87.7	71.7	60.3
English	62.0	58.0	71.0	60.3	52.0
Mathematics	70.4	58.6	88.2	68.8	53.2
Bangladesh & Global Studies	79.3	72.7	89.2	77.2	68.3
Primary Science	83.8	78.8	91.2	83.2	76.6
All	75.4	67.7	86.6	73.5	63.6

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.17

*Trends in mean number of items correctly answering by taxonomic class level, 2000–14*

Taxonomic class level	Years		
	2000	2008	2014
Knowledge	22.8	27.5	30.2
Understanding	7.1	8.1	9.0
All	29.9	35.6	39.2

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.18

*Trends in mean and percentage of items correctly answering by gender and taxonomic class level of items, 2000–2014*

Area	Mean			Percentage			Increase 2000-14	
	2000	2008	2014	2000	2008	2014	Mean	%
<i>Boys</i>								
Knowledge	25.3	28.6	29.9	56.2	63.6	66.4	4.6	10.2
Understanding	7.9	8.4	8.9	41.6	44.2	46.8	1.0	5.2
<i>Girls</i>								
Knowledge	24.2	26.5	30.5	53.8	58.9	67.8	6.3	14.0
Understanding	7.5	7.7	9.0	39.5	40.5	47.4	1.5	7.9

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.19

*Trends in mean and percentage of items correctly answering by area and taxonomic class level of items, 2000–2014*

Area	Mean			Percentage			Increase 2000-14	
	2000	2008	2014	2000	2008	2014	Mean	%
<i>Rural</i>								
Knowledge	21.6	26.8	29.8	48.0	59.6	66.2	8.2	18.2
Understanding	6.8	7.8	8.7	35.8	41.1	45.8	1.9	10.0
<i>Urban</i>								
Knowledge	27.6	30.1	32.2	61.3	66.9	71.6	4.6	10.3
Understanding	8.4	9.0	10.2	44.2	47.4	53.7	1.8	9.5

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.20

*Trends in mean and percentage of items correctly answering by school type and taxonomic class level of items, 2000–2014*

School type	Mean			Percentage			Increase 2000-14	
	2000	2008	2014	2000	2008	2014	Mean	%
<b>Government</b>								
Knowledge	22.7	28.0	30.6	50.4	62.2	68.0	7.9	17.6
Understanding	7.0	8.3	9.2	36.8	43.7	48.4	2.2	11.6
<b>Newly nationalized</b>								
Knowledge	20.5	26.1	27.4	45.6	58.0	60.9	6.9	15.3
Understanding	6.3	7.5	7.2	33.2	39.5	37.9	0.9	4.7
<b>Non-formal</b>								
Knowledge	27.7	29.6	29.7	61.6	65.8	66.0	2.0	4.4
Understanding	8.3	8.8	8.3	43.7	46.3	43.7	0.0	0.0

Sources: Education Watch Competencies Achievement Test, 2000, 2008, 2014

## Annex 8.21

*Percentage of students achieving each of the competencies and their difficulty levels by gender and residence, 2014*

Competency number	Gender		Level of significance	Residence		Level of significance
	Boys	Girls		Rural	Urban	
Bangla						
Reading skills in Bangla	79.2	83.7	p<0.001	80.1	88.4	p<0.001
Writing skills in Bangla	44.7	57.9	p<0.001	49.3	61.6	p<0.001
Listening skills in Bangla	88.2	87.6	ns	87.4	90.4	p<0.001
English						
Reading skills in English	87.8	89.1	ns	87.5	93.5	p<0.001
Writing skills in English	5.6	10.2	p<0.001	7.4	10.4	p<0.001
Listening skills in English	89.2	89.3	ns	88.2	94.5	p<0.001
Mathematics						
Basic number skills	92.4	89.4	p<0.001	90.2	94.4	p<0.001
Skills on four basic arithmetical operations	63.5	62.6	ns	61.8	69.1	p<0.001
Word problem solving in mathematics	47.6	44.2	p<0.01	43.5	58.3	p<0.001
Skills on measurement units	64.4	57.4	p<0.001	60.1	64.9	p<0.001
Identification of geometric figures	85.4	84.5	ns	84.0	89.9	p<0.001
Bangladesh & Global Studies						
Knowing the duties as family members	91.5	91.5	ns	90.8	95.1	p<0.001
Knowing the duties as member of society	95.2	94.6	ns	94.4	97.6	p<0.001
Knowing the duties as citizens of Bangladesh	83.8	85.2	ns	82.9	92.9	p<0.001
Knowing about the country	56.3	57.7	ns	55.8	63.2	p<0.001
Manners with persons of various relationships	88.4	90.8	p<0.01	88.9	92.9	p<0.001
Knowing about the children of other countries	52.5	55.7	p<0.05	52.7	61.2	p<0.001

<b>Primary Science</b>						
Knowing the importance of good health	93.6	93.2	ns	92.8	96.4	
Knowing about environment and health systems	90.9	92.0	ns	91.2	92.5	ns
Knowing about the importance balanced diet	82.6	85.9	p<0.001	83.3	89.2	p<0.001
Knowing about preventive measures of common diseases	56.4	58.1	ns	56.2	63.0	p<0.001
Information collection ability	93.5	94.5	ns	93.7	95.5	p<0.01
Observation skills on natural objects	83.8	86.2	p<0.05	85.1	84.4	ns
Scientific investigation skills	77.1	77.4	ns	76.4	81.2	p<0.001
Identification of cause and effect relationship	86.7	86.4	ns	85.2	93.7	p<0.001
Science and technology in everyday life	78.6	82.1	p<0.001	79.0	87.0	p<0.001
<b>Religious Studies</b>						
Life sketch of prophet Mohammed (SM) or the preachers of own religion	33.7	44.0	p<0.001	35.2	57.0	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

#### Annex 8.22

#### Percentage of students achieving each of the competencies and their difficulty levels by school type, 2014

Competency number	School type					Level of significance
	Govern-ment	Newly-nation.	Kinder-garten	Non-formal	Ebte-dayee	
<b>Bangla</b>						
Reading skills in Bangla	82.4	74.1	92.3	82.3	78.5	p<0.001
Writing skills in Bangla	58.6	26.0	73.4	41.4	16.7	p<0.001
Listening skills in Bangla	88.6	81.4	97.7	90.9	85.9	p<0.001
<b>English</b>						
Reading skills in English	88.9	84.4	96.4	88.9	71.7	p<0.001
Writing skills in English	8.4	2.8	20.1	1.6	0.5	p<0.001
Listening skills in English	88.9	87.0	96.5	90.1	84.2	p<0.001
<b>Mathematics</b>						
Basic number skills	93.3	82.4	97.1	89.9	81.8	p<0.001
Skills on four basic arithmetical operations	63.9	50.8	84.6	67.5	53.7	p<0.001
Word problem solving in mathematics	47.0	29.2	82.0	40.3	21.5	p<0.001
Skills on measurement units	62.8	48.2	81.8	58.1	40.4	p<0.001
Identification of geometric figures	84.5	82.0	95.1	87.8	69.0	p<0.001
<b>Bangladesh &amp; Global Studies</b>						
Knowing the duties as family members	92.8	86.1	97.5	91.6	77.8	p<0.001
Knowing the duties as member of society	95.3	91.8	99.6	97.1	88.0	p<0.001
Knowing the duties as citizens of Bangladesh	85.2	76.9	96.5	88.7	76.8	p<0.001

Knowing about the country	58.5	47.8	76.8	42.2	45.1	p<0.001
Manners with persons of various relationships	89.6	86.5	96.1	93.2	80.0	p<0.001
Knowing about the children of other countries	55.1	46.5	68.2	50.6	42.1	p<0.001
<b>Primary Science</b>						
Knowing the importance of good health	94.2	89.4	97.9	94.0	87.7	p<0.001
Knowing about environment and health systems	91.7	89.6	95.6	89.9	84.4	p<0.001
Knowing about the importance balanced diet	86.1	75.8	94.5	83.6	70.4	p<0.001
Knowing about preventive measures of common diseases	56.8	56.2	62.8	56.1	60.6	p<0.01
Information collection ability	94.3	91.2	98.5	94.4	91.4	p<0.001
Observation skills on natural objects	85.6	81.2	91.2	82.4	82.0	p<0.001
Scientific investigation skills	76.9	73.0	90.8	76.5	63.0	p<0.001
Identification of cause and effect relationship	87.7	79.6	97.1	87.7	69.7	p<0.001
Science and technology in everyday life	81.0	72.7	91.8	84.2	79.1	p<0.001
<b>Religion &amp; Moral Education</b>						
Life sketch of prophet Mohammed (SM) or the preachers of own religion	36.5	34.8	66.2	33.8	15.5	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

#### Annex 8.23

##### Mean number of competencies achieved by fathers' education, gender and residence, 2014

Fathers' education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Nil	18.8	19.5	19.0	20.1	19.2
1 – 4 years	19.5	19.3	19.2	20.9	19.4
5 – 9 years	19.9	20.3	19.9	21.1	20.1
10 years+	22.4	22.7	22.2	23.4	22.5
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

#### Annex 8.24

##### Mean number of competencies achieved by mothers' education, gender and residence, 2014

Mothers' education	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Nil	19.1	19.4	19.1	20.2	19.2
1 – 4 years	19.2	18.8	18.7	20.5	19.0
5 – 9 years	20.0	20.5	20.1	21.3	20.2
10 years+	22.6	23.5	22.8	23.7	23.1
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.25

*Mean number of competencies achieved by household food security status, gender and residence, 2014*

Household food security status	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Always in deficit	19.1	18.8	18.6	20.7	19.0
Sometimes in deficit	19.5	19.6	19.3	21.1	19.6
Balance	19.9	20.1	19.8	20.9	20.0
Surplus	20.3	21.3	20.4	22.6	20.8
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.26

*Mean number of competencies achieved by electricity availability at home, gender and residence, 2014*

Electricity availability at home	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Available	19.9	20.3	20.1	21.7	20.1
Non-available	16.5	19.4	19.1	20.0	17.9
Level of significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Competencies Achievement Test, 2014

## Annex 8.27

*Mean number of competencies achieved by religion, gender and residence, 2014*

Religion	Gender		Residence		All
	Boys	Girls	Rural	Urban	
Muslim	19.4	20.3	19.8	21.6	20.1
Non-Muslim	19.4	20.7	19.5	21.7	20.0
Level of significance	na	ns	ns	ns	Ns

Source: Education Watch Competencies Achievement Test, 2014

**Annex 9.1**  
**Trends in age-specific literacy rate, 2000–2013**

Age group (years)	Years			
	2000	2005	2008	2013
5 – 9	1.7	7.5	3.3	6.3
10 – 14	36.8	59.6	56.0	65.2
15 – 19	64.6	78.3	80.6	83.0
20 – 24	55.3	70.4	72.1	76.9
25 – 29	42.5	58.0	59.5	69.9
30 – 34	38.9	47.4	49.4	58.1
35 – 39	36.3	44.8	41.0	47.2
40 – 44	35.7	39.7	38.5	42.1
45 – 49	34.8	39.8	36.0	38.1
50 – 54	30.0	37.3	35.5	35.9
55 – 59	28.3	37.7	36.8	36.3
60+	18.1	27.3	25.7	26.8

Sources: Education Watch Household Surveys, 2000, 2005, 2008, 2013

**Annex 9.2**  
**Percentage of literate households by some background characteristics, 2013**

Characteristics <i>HH food security status</i>	% of literate household	Characteristics <i>Education of HHH</i>	% of literate household
Always in deficit	52.3	Nil	65.0
Sometimes in deficit	71.3	1 – 4 years	84.4
Breakeven	82.3	5 – 9 years	97.6
Surplus	93.9	10 years +	100.0
Significance	p<0.001	Significance	p<0.001
<i>Religion</i>		<i>Literacy status of HHH</i>	
Muslim	82.1	Literate	100.0
Non-Muslim	87.6	Not-literate	67.6
Significance	p<0.001	Significance	p<0.001
<i>Gender of HHH</i>			
Male	84.1		
Female	72.1		
Significance	p<0.001		

Source: Education Watch Household Survey, 2013



## Annex 9.3

*Trends in literacy rate of youths (15–24 yrs.) by gender, 2000–2013*

Years	Gender			Level of significance	All
	Male	Female	Difference (M – F)		
2000	61.6	59.3	2.0	p<0.001	60.4
2005	75.1	74.7	0.4	ns	74.9
2008	73.9	78.7	-4.8	p<0.001	76.5
2013	77.3	82.6	-5.3	p<0.001	80.2

Source: Education Watch Household Survey, 2000, 2005, 2008, 2013

## Annex 9.4

*Trends in literacy rate of youths (15–24 yrs.) by residence, 2000–2013*

Years	Residence			Level of significance	All
	Rural	Urban	Difference (U – R)		
2000	57.5	73.4	15.9	p<0.001	60.4
2005	72.9	85.0	12.1	p<0.001	74.9
2008	74.9	84.6	9.7	p<0.001	76.5
2013	78.8	85.7	7.7	p<0.001	80.2

Source: Education Watch Household Survey, 2000, 2005, 2008, 2013

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### Education Watch Study Titles

- ❑ 1999: Hope not Complacency: State of Primary Education in Bangladesh
- ❑ 2000: A Question of Quality: State of Primary Education in Bangladesh
- ❑ 2001: Renewed Hope Daunting Challenges: State of Primary Education in Bangladesh
- ❑ 2002: Literacy in Bangladesh: Need for a New Vision
- ❑ 2003/4: Quality with Equity: The Primary Education Agenda
- ❑ 2005: The State of Secondary Education: Progress and Challenge
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- ❑ 2014: Whither Grade V Examination? An assessment of Primary Education Completion Examination in Bangladesh
- ❑ 2015: Moving from MDG to SDG: Accelerate Progress for Quality Primary Education



The year 2015 marks the culmination of international Education for All (EFA) goals and the UN Millennium Development Goals (MDGs) as well as setting the Sustainable Development Goals (SDGs). Bangladesh is among the top few low and middle income countries (LMICs) which showed impressive progress in terms of access to education and gender parity in it. This *Education Watch 2015* explored quality of primary education using an *Input-Process-Output* (IPO) framework through the lens of equity. This study is a summative assessment of the past 17 years' efforts (1998-2014) and a baseline for the next 15 years.

Overall message is strongly positive. Educational institutions are better equipped than before; major improvement has been witnessed in the government facilities. Systems improvement also noticed in output indicators like students' survival and completion rates and learning achievement. Gender disparity in access and participation has been eliminated and females share among teaching staff, heads of institutions, and school managing committees increased. Disparity and inequity is also a lingering problem, especially in certain geographical areas and socio-economic groups. As a result of continuous efforts, educational attainment and literacy status of the population have improved. But there is still an unfinished business with about three million out-of-school children and quality of education below the expectations.

The unfinished tasks of EFA 2015 and the broader agenda of education in the Sustainable Development Goals (SDG) 2030 present a challenge and an opportunity. The positive results in recent years are the capital on which much needed further progress in learning outcomes and overcoming lingering disparities in educational participation has to be, and can be, built. To reach the SDG target for 2030, Bangladesh needs to accelerate its progress compared to what was done during the MDG era.

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