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An outline map of Bangladesh is shown in the background, with the title text overlaid on it.

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REVIEW

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**BANGLADESH
EDUCATION SECTOR REVIEW**

VOLUME II

BANGLADESH

EDUCATION SECTOR REVIEW

Volume II



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Contents

Part One

BANGLADESH PRIMARY AND PRE-PRIMARY EDUCATION	1
EXECUTIVE SUMMARY	3
A. Dimensions and Distinguishing Characteristics	5
B. Status of Knowledge	8
C. Strengths of the Primary Education System	8
D. Weaknesses	11
E. Government Plans and Policies	17
F. Vision for 2020: Reorientation and Quality Improvement	18
G. Strategy	18
ANNEX : EARLY CHILDHOOD CARE AND EDUCATION FOR DEVELOPMENT	22
A. Introduction	22
B. Rationale for an Early Childhood Care and Education for Development Program	22
C. Dimensions and Characteristics	24
D. Status of Knowledge	28
E. Strengths and Opportunities	29
F. Challenges	29
G. Plans and Policies	29
H. Vision of 2020	30
I. Key Strategies and Options	31
REFERENCES	33
REFERENCES TO ANNEX	33
LIST OF TABLES	
1.1 : Primary School Enrollment, Completion and Number of Teachers, 1990-97	5
1.2 : Distribution of Primary Level Institutions, Teachers and Students, 1996	6
1.3 : International Comparisons of Key Indicators	6
1.4 : Average Number of Students per Teacher	7
1.5 : Results of School Grading, 1998	9
1.6 : Educational Qualifications of Govt. Primary School Teachers	11
1.7 : Daily School Timing in Primary Schools Managed by Selected Organizations	14
1.8 : Rate of Progression (percent)	16
1.9 : Objectives and Means	19
A-1: Dimensions of ECCD Initiatives	24

LIST OF FIGURES

1.1: Gender Parity in Primary Education	6
1.2: Rate of Progression in Primary Schools	17

LIST OF CHART

Chart 1: Organogram of the Management of Primary Education	21
--	----

Part Two

BANGLADESH NON FORMAL EDUCATION	35
--	----

EXECUTIVE SUMMARY

A. Dimensions and Distinguishing Characteristics	39
B. Status of Knowledge	41
C. Strengths	43
D. Weaknesses and Constraints	43
E. Government Policy and Plans	46
F. Financial Implications	46
G. Recommendations	48
H. Vision and Strategy	49

LIST OF TABLES

2.1: Projects in the NFE Sector Under DNFE (1996–2001)	40
2.2: Planned Expenditures for NFE (US \$ Million)	47
2.3: Total DNFE Expenditure (Million Taka)	47
2.4: Planned NFE Expenditure and Financing of NFE Projects (Million Taka)	47
2.5: Strategy for NFE	49

LIST OF BOXES

2.1: Basic Education Program for Hard-to-Reach Urban Children	41
2.2: Studies on the Impact of Literacy Training	50

Part Three

BANGLADESH SECONDARY AND HIGHER SECONDARY EDUCATION	51
--	----

EXECUTIVE SUMMARY

A. Dimensions and Special Characteristics	57
B. Status of Knowledge of the Sub-Sector	60
C. Strengths of the Secondary System	60
D. Weaknesses of Secondary Education	63
E. Government Plans and Policies	71

F. Vision For 2020: Reorientation and Equal Access to Quality	73
G. Towards a Strategy for Development of Secondary Education	74
ANNEX	78
A. Statistics and Description of the System	78
B. Administration and Management	83
C. Donor Support for Secondary Education	87
D. Analysis of the Curriculum	88
E. Examinations	89
F. Examination Preparation and Administration	91
G. Internal Efficiency	94
REFERENCES	97
LIST OF TABLES	
3.1 : Enrollments at Second Level by Cycle and Type of School, 1997	57
3.2 : Overview of Secondary Education, 1997	58
3.3 : Destinations of 1993 HSC Graduates	59
3.4 : Enrollment Ratios by Level (percent of age group enrolled)	61
3.5 : Students per Teacher and Class in Secondary Schools, 1970-1997	66
3.6 : Indicative Survival Rates in Secondary Education	70
3.7 : Objectives and Means	74
A-1 : Transition Rates from Primary to Secondary	78
A-2 : Enrollments in Secondary and Higher Secondary Education, Total, 1990-1997	78
A-3 : Growth in Second Level Education by Type of School, 1993-1997	79
A-4 : Proportion of Girls as Percent of Total Students Enrolled, 1990-97	79
A-5 : Proportion of Female Teachers by Type of School, 1993, 1995, 1997	80
A-6 : Students per School and per Teacher by Division and Type of Secondary School	80
A-7 : Higher Secondary Students per School and per Teacher by Division and Type of College	81
A-8 : Training by NAEM	82
A-9 : Analysis of Science Curriculum, Grades VI-VIII	88
A-10: Analysis of Science Curriculum, Grades VI-VIII in terms of Bloom's Taxonomy	88
A-11: Analysis of Humanities Curriculum Objectives for Grades IX-X	88
A-12: Analysis of Humanities Curriculum Objectives (Grades IX-X) in terms of Bloom's Taxonomy	88
A-13: Analysis of HSC Science Curricula	89
A-14: SSC and HSC Examination Results, 1992-97	89
A-15: SSC Pass Rates (Percent) by Subject, Gender, and Examination Board	90
A-16: HSC Pass Rates (Percent) by Subject, Gender and Examination Board, 1997	90
A-17: Pass Rates and Rank Order of BISEs, 1992-1997	91
A-18: Students per Teacher by Type of School, 1991, 1998	93
A-19: Proportion of Trained Teachers by Type of School and Gender	93
A-20: Repetition, Dropout and Promotion Rates by Class, 1993, 1995, 1997 (percent enrollment by class)	94
A-21: Progression Rates Between Grades	94
A-22: Number of Years in which Entrants to Grade VI complete Grade X in '92 & '96	95
A-23: Transition Rates from SSC to Grade XI	95
A-24: Indicative Survival Rates in Secondary Education	96
LIST OF CHARTS	
Chart 3.1: Organogram of the Management of Secondary and Higher Education	84
Chart 3.2: Organogram of the National Curriculum and Textbook Board	85
Chart 3.3: Organogram of the Board of Intermediate and Secondary Education	86

Part One
BANGLADESH
PRIMARY AND PRE-PRIMARY EDUCATION

Scherezad M. Latif
Habibur Rahman

EXECUTIVE SUMMARY

The Vision for 2020. Bangladesh by 2020 should have achieved a strong system of basic education with virtually all children enrolled and completing primary education with at least minimum levels of competency directly related to life skills. Primary education for poorer groups will be supported by targeted preschool education addressing nutritional, health, and didactic concerns. The content of education will stress life skills and problem solving rather than mainly the rote memorization that prevails at present. Rote memorization helps instill a solid foundation in a child's learning, but children also need to acquire the ability to learn on their own, so they can continue to learn after completion of schooling.

The highest priority for education as a whole should remain basic education over the first two decades of the twenty-first century for two reasons. First, basic education can continue to contribute to reductions in fertility, improvements in health, and reductions in malnutrition. These are essential elements in Bangladesh's overall development strategy. Second, most jobs in the formal and informal sectors will require basic education. Within the primary education sub-sector, emphasis should be placed on (a) raising learning achievements (or quality) to acceptable levels and (b) consolidation and completion of universal enrollments by targeting the enrollment and retention of hard-to-reach poor youth.

Sustained progress should be possible in primary education. Dramatic results have already been achieved in increasing enrollments. Between 1980 and 1997, enrollments doubled from 8 to 16 million, and from 65 to 85 percent of the age group. If schools run by non-government institutions are included, enrollments are increased by a further 2 million. Bangladesh's substantial progress in halving its fertility rate will be felt principally at the primary school level over the next two decades. The total number of primary school aged children is expected to drop by 3 million by 2020, relieving pressure for expansion. This means that investments can be devoted increasingly to improving the quality and management of primary education where the need is greatest. The government, assisted by external donors, has embarked upon a major Primary Education Development Program (PEDP) which is a comprehensive investment program for 1998 to 2003. These investments are aimed at increasing enrollment in under served areas, expanding the provision of textbooks, developing and applying better methods of measuring learning, training teachers, and reorganizing central and local management. Above all, the country is fortunate to have several homegrown alternative methods of primary education developed and perfected by non-government institutions such as BRAC. These methods have successfully produced able primary school graduates in rural areas, particularly girls. Although the public and private sectors are not comparable, lessons can be learnt from successes in either sector and innovations in non-government institutions could be adapted for improvement of public primary education.

However, to realize the vision of a strong and vibrant system of primary education, Bangladesh must be prepared to meet the following challenges:

- At present almost 10 percent of children do not enter primary school at all. For the most part these children are from hard-to-reach poor families for whom the opportunity cost of attendance is too high. Among these are also children with disabilities and ethnic minorities.
- Forty percent of those who enter primary education do not complete the five grades.

- Student wastage (repetition and dropout) is high, with most students taking six years to reach fourth grade.
- Those who complete the five grades perform on average at about a third grade achievement level and lack essential problem solving skills.

Problems of insufficient quality in primary education stem from several factors. The most basic reason is insufficient effective teaching time in the classrooms, also called "time on task." Reasons for this include low teaching hours (averaging only two hours per day with relatively few school days per year) and high incidence of "irregular presence" of teachers often for official duties unrelated to education. Teachers tend to be professionally isolated and poorly motivated. Continuous learning assessment, an essential tool for improving student performance, is almost absent.

Solutions to these problems require priority attention to improvements in quality. Better quality will reduce wastage in the system and increase completion rates. The good news from the financial analysis (Volume I) is that, subject to continued growth, Bangladesh can attain both universal primary education and solve its quality problems within current levels of education spending as a percentage of GDP.

Bangladesh should undertake the following actions:

- Make quality improvement the number one priority.
- Reorient teaching content away from mainly rote memorization and put more focus toward problem solving and greater relevance to local circumstances.
- Increase focus on learning achievements in school, starting with much better measurement of learning gains and better motivation of teaching staff.
- Establish incentives for improvement starting with dissemination of the characteristics of good school performance, publicize school grading results amongst the community, development of school improvement plans, and provision of grants for teacher innovations.
- Increase local participation in the management and control of schools so that teachers and managers can be held accountable for results.
- Target hard-to-reach children through compensatory programs, including preschool education.
- Incorporate the principles and lessons of non-government institution sponsored basic education programs into the mainstream, which requires an improved level of cooperation between the government and non-government sectors.
- Increase public investment in primary education on a per-student basis (currently among the lowest in the world), mainly to increase the provision of teachers and textbooks.

The highest priority must be kept riveted on effective implementation of the current PEDP which is designed to attack the basic issues in primary education comprehensively. The results of a successfully implemented PEDP should provide the basis for sustained progress, but the program by itself cannot solve all the problems in the primary subsector within five years. Successor investments will need to be carried out through 2020.

A. DIMENSIONS AND DISTINGUISHING CHARACTERISTICS

Size and Growth

1. Primary education is five years in length in Bangladesh, starting at age 6. Eleven different types of primary schools exist. Primary education is characterized by: (a) substantial progress made in increasing enrollment during the 80's and early 90's, (b) large number of children from very poor backgrounds and from illiterate families who are now attending school, and (c) diverse types of schools serving children who have diverse needs including working children. Among these there is a very large number of schools run by non-government institutions that have innovative, well-structured and highly relevant schooling models, currently being replicated in Africa and in other South Asian countries.

Table 1.1: Primary School Enrollment, Completion and Number of Teachers, 1990-97

Year	Number of Schools	Children Enrolled (in million)	Share of Girls Enrollment (percent)	Number of Primary Teachers	Share of Female Teachers (percent)	Rate of Dropouts (percent)
1990	47,200	12.0	44.7	160,900	20.6	—
1991	49,500	12.6	45.3	160,100	21.0	59.3
1992	50,300	13.0	45.9	156,500	21.6	46.6
1993	52,900	14.0	46.5	157,600	23.8	39.6
1994	56,200	15.0	47.0	159,100	25.0	38.7
1995	61,300	17.3	47.4	158,700	26.9	—
1996	63,000	17.6	47.6	161,500	28.0	—
1997	77,700	18.3	51.2	316,500	—	—

Source : BANBEIS and staff estimates, 1999

2. Communities established, managed and financed schools before independence in 1971, with only partial financing by the government. Primary schools were nationalized after independence. As a result about half of the schools are currently managed by the government (Table 1.2). Half of the schools in the primary sector are privately run and managed. There are currently 78,600 primary schools in the country.¹ Presently about two thirds of the students are enrolled in government schools. Others are in schools managed by non-government organizations, by community organizations or by the Islamic groups. A large number of children, about 840,000 are enrolled in Madrasahs, schools managed by Muslim religious leaders where the focus of instruction is the Qur'an.

¹ This number excludes Madrasah schools and includes government primary, non government registered schools and community non registered schools.

3. Since efforts to enroll all children in government schools fell short, local communities have continued to organize their own schools. Non-government institutions are active in promoting education in poor villages without schools. Non-government institutions have also played a significant role in providing working primary school age children with flexibly timed non-formal programs where they receive basic education.

Figure 1.1: Gender Parity in Primary Education

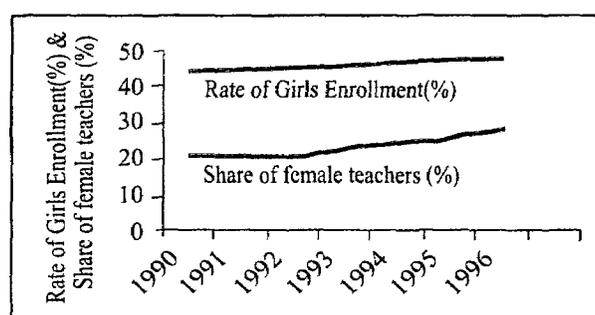


Table 1.2: Distribution of Primary Level Institutions, Teachers and Students, 1996

Category of Institutions	Number of Institutions	Percent of Total	Number of Teachers	Percent of Total	Number of Students (mil.)	Percent of Total
Government	37,700	47.9	161,500	49.7	11.8	66.9
Non-Gov't Registered	19,700	25.0	78,700	24.2	3.6	20.3
Non-Gov't Unregistered	4,000	5.0	14,700	4.5	0.6	3.3
Schools attached to high schools	1,900	2.4	7,700	2.4	0.4	2.5
PTI's experimental school	50	0.0	300	0.1	0.01	0.1
Ebtedayee Madrasah (indep.)	9,500	12.1	37,900	11.7	0.6	3.5
Ebtedayee attached to high madrasah	2,800	3.5	11,300	3.5	0.2	1.3
Kindergarten	1,400	1.8	8,700	2.7	0.2	1.2
Satellite	200	0.3	400	0.1	0.02	0.1
Community	1,400	1.8	3,500	1.1	0.2	0.92
Total	78,600	100.0	324,800	100.0	17.6	100.00

Source: BANBEIS, Bangladesh Education Profile 1997

Note: Numbers may not total because of rounding

4. In terms of enrollment and gender parity in enrollment Bangladesh ranks well regionally and is on par with Indonesia and China (See Table 1.3). The country however, is lagging behind in student teacher ratio, 63 students for every teacher; as well as gender parity in the teaching force. However this is misleading because in Bangladesh most schools operate on two shifts. In the so-called staggered shift system the first usually covers the classes for preprimary, Class I and Class II students whilst the second shift includes Class III, IV, and V. The same teacher usually works both shifts. Table 1.4 shows the range of teacher student ratios on the basis of each shift for the government and non-government primary schools.

Table 1.3: International Comparisons of Key Indicators

Indicators	Bangladesh	Indonesia	China	Sri Lanka	South Asia
Net Enrollment Ratio (percent)	85	97	102	NA	NA
Female Student as percent of Total	48	48	47	48	43
Student Teacher Ratio	63	23	24	17	63
Female Teachers as percent of Total	28	52	47	96	34

Source: World Bank, World Development Indicators, 1999, pg 74-88

Management and Finance

5. In 1992, a separate ministry level division, the Primary Mass Education Division (PMED), was set up in order to help accelerate activities that would attain GOB goals of achieving both Universal Primary Education (UPE) and Education for All (EFA). PMED was originally under the Prime Minister's office but after new elections and a new government in 1996, it was moved under the minister of education. The Directorate of Primary Education (DPE), established in 1981 as a step to strengthen the administrative infrastructure of primary education, was moved from the Ministry of Education to the PMED in 1992 (See attached Organogram). There is also a separate Compulsory Primary Education Monitoring Unit (CPEIMU) headed by a Director General. At the community level, the School Managing Committee and various local primary education committees i.e. the Parent Teachers Associations (PTA) are meant to play a supportive role in building a favorable teaching-learning environment in schools.

6. The DPE and its subordinate offices in the districts and thanas are responsible entirely for management and supervision of formal primary education. It employs 161,000 teachers, equips and maintains close to 38,000 government primary schools, supports (through subventions) 9,700 non-government and 10,000 Madrasah schools, and maintains an administrative infrastructure from the head office in Dhaka down to each school. A Director General heads the DPE with functional divisions assisted by Directors and other relevant staff at the headquarters. In the different tiers of administrative units (division, district and thana) the Directorate has field officers, namely the Deputy Director, the District Primary Education Officer (DPEO) and the Thana Education Officer (TEO). Their responsibilities include distribution of textbooks, countrywide organization of in-service training of teachers, recruitment, posting, and transfer of teachers and other staff over the years. The responsibility of school construction, repair, and supply of furniture is with the Facility Department and Local Government Engineering Department (LGED). The National Curriculum and Textbook Board (NCTB) is responsible for the development of curriculum and the production of textbooks. Each of the thanas has a number of TEOs and ATEOs for school supervision and academic support to teachers.² Each ATEO is given 20-30 schools to supervise and is required to visit 10. The ATEO is also given per month Tk. 200 for expenses related to school supervision.

7. The Training Division of the DPE assesses the training needs at national and field levels and is engaged in preparing and implementing plans. There are 53 PTIs and one non-government training institute in different locations in the country, which impart pre-service training to primary school teachers. The National Academy for Primary Education (NAPE) has the role of training the Primary Training Institute (PTI) instructors, officials of different levels and conducting PTI examinations and related research activities as an apex training and research institute of primary education. About 173,000 teachers, teacher-trainers, officials and supervisors have been given training on competence based curriculum. The PTIs have the capacity to train 10,500 trainees a year. Recently, under the PEDP, teachers of non-government registered primary schools, satellite schools and community schools have been brought under the training program. NORAD funded PEDP is also looking into curriculum revision of the C-in-Ed training.

8. The government finances all expenses in government schools and 80 percent of the teacher salaries in non-government registered schools, on the basis of school registration and eligibility criteria. The government also makes grants to non-government schools for the repair of school buildings, which is decided based on a checklist of eligible criteria. The Thana Nirbahi Officer (TNO) decides which school gets funds for repair

Table 1.4: Average Number of Students per Teacher

School	Shift 1	Shift 2
Government	33-48	17-52
Non-Government	23-37	17-35

Source: Center for Policy Dialogue, 1996 P353

² There are 481 thanas (with 4,510 staff), 64 districts (690 staff) and six divisions (71 staff)

and disburses the money. The TNO is the drawing and disbursing officer of every thana and comes from the establishment ministry and the administrative cadre. Students in both government and non-government registered schools receive free textbooks. NGO schools currently do not receive free textbooks.

B. STATUS OF KNOWLEDGE

9. A plethora of information exists about primary education in Bangladesh. First, the government and donors prepared several studies for the Jomtien Conference on Education for All in 1990. These included plans for reaching Education for All (EFA) in Bangladesh by the year 2000. The main strategic thrust was a well-structured community mobilization scheme that emphasized the reasons to provide education for girls. The community participation schemes and awareness campaigns are internationally well known and documented. Second, between 1992 and 1997, the GOB implemented a massive multi-donor supported General Education Project (GEP) aimed at improving access to school, quality and management. This project also produced voluminous information, studies and assessments of the system. Third, studies worth about US\$1 million from a Japan Grant were carried out between 1995 and 1998 by national and international consultants. Fourth, in August 1999, Campaign for Popular Education (CAMPE) published a study on the state of primary education in Bangladesh with a particular focus on internal efficiency.³ The findings of this study suggest that despite all the initiatives taken by both the public, private and non-government sectors, the required momentum on improving primary education has not been achieved. These documents provide a comprehensive view of the education system in Bangladesh. Finally, the conference on Universal Primary Education in 1996 brought together the main policy makers and researchers in primary education. The conference produced a thorough analysis entitled "Getting Started: Universalizing Quality Primary Education in Bangladesh".

10. As a result of these activities, the government has achieved a well-structured development program for 1998 - 2003, the Primary Education Development Program (PEDP), with clearly delineated policies and priorities to further improve access, quality and management of the system. The overall program calls for a total investment of about \$750 million, of which slightly more than half is to be financed by a consortium of external donors. The government's development plans now clearly spell out what to do, when to do it, and at what cost. Implementation of these plans, however, is somewhat weak. In recent years progress in achieving the intended results is slow and a matter of great concern among policy makers, donors to the sector and other interested parties.

11. Still, some knowledge gaps remain: (1) no international comparisons exist on student achievement, (both because Bangladesh has not participated in international assessments and because it operates no internal national assessment system); (2) only a few studies analyze classroom practices and innovations made by non-government institutions in classroom teaching strategies; (3) little research documents the characteristics of the different kinds of schools found in Bangladesh: government, madrasah, and non-government managed schools.

C. STRENGTHS OF THE PRIMARY EDUCATION SYSTEM

12. Perhaps the greatest strength of the system of primary education in Bangladesh is the consistent, high level national commitment and consensus on the priority of primary education. This commitment is reflected in high investments and financial allocations for primary education over the 1990s. As a result of this commitment and the programs it spawned, Bangladesh has achieved one of the largest centralized systems of primary education in the world. It accommodates over 18 million children in regular primary schools (Table 1.1) and 2 million additional children in small non-formal schools. In the five years between 1992 and 1997 the number of primary schools increased by more than half from 50,300 to 77,600. Over the

3 CAMPE, *Hope Not Complacency State of Primary Education in Bangladesh 1999*, published by the University Press Limited (UPL), Dhaka, August, 1999.

same period enrollments increased by 41 percent. Net enrollment⁴ currently reach about 85 percent of the age group in regular schools and about 90 percent with non-formal education attendance.⁵ Dropouts over the five-year cycle have decreased dramatically from 80 per cent in the 1970s to 38 percent in recent years.

13. Efforts to get girls into school have been highly successful. These efforts include community mobilization schemes, emphasis on hiring female teachers and locating schools near the children's homes. Girls' enrollment increased from 45 percent of the total in 1990, and is now almost at par with boys' enrollment. Bangladesh also does much better than other countries in South Asia in enrolling students from poor families in primary education. About 70 percent of the eligible children from poor families enroll in primary education. The gap between the richest and poorest children in terms of median grade completed is relatively modest in Bangladesh, around five grades, compared with a gap of nine grades and ten grades in Pakistan and India, respectively.⁶

14. These impressive achievements are all the more striking given that the parents of these children are illiterate for the most part. About 70 percent of the mothers and 50 percent of the parents of children currently enrolled in school cannot read or write. A few years ago these parents would not have seen the need to educate their children, but the community mobilization schemes and awareness campaigns that followed the EFA efforts of the early 90's have had impressive results.

15. Improved management of primary education is illustrated in several measures adopted by the Primary Mass Education Division (PMED) since 1997. PMED and DPE officials are required to make periodic field visits to spot check on office management in thana and district offices as well as look into teacher and student attendance in schools. The PMED has also mandated that every school send at least 20% of their students for the Grade V National Scholarship Examination. The intention is to use this as a proxy for national assessment of achievement. The result sheets of these exams are distributed, much like the Secondary and Higher Secondary Certificate examination results, in order to check performance. This was not done previously.

Table 1.5 : Results of School Grading, 1998

Grade	Government		Non-government Registered		Total	
	No	% of Total	No.	% of Total	No.	% of Total
A	6,472	32.9	9,396	33.6	15,868	33.3
B	2,014	10.2	6,395	22.9	8,409	17.6
C	9,952	50.5	9,416	33.7	19,368	40.7
D	1,253	6.4	2,721	9.7	3,974	8.3
Total	19,691	100.0	27,928	100.0	47,619	100.0

Source : PMED Note: Numbers may not add due to rounding

16. In a first-time effort to evaluate schools in Bangladesh, embryonic performance-based criteria are being applied to grade primary schools. The grading system applies to government and non-government registered schools. The grading is from A to D and based on a form that asks both subjective and objective

4 Net enrollments exclude over- and under-age students.

5 BRAC schools are considered non formal schools by the government. They offer grades 1 to 3 and educate about 1.3 million children ages 6 to 10. GOB figures do not count children enrolled in BRAC schools as enrolled in the formal system even though when these children finish class three in a BRAC school they continue in class four in the government schools. For this report we have included children in BRAC schools as enrolled in school, and for this reason our figure of 90 percent enrollment is higher than the GOB enrollment.

6 Dean Filmer and Lant Pritchett, 1998, "The Effect of Household Wealth on Educational Attainment: Demographic and Health Survey Evidence," Policy Research Working Paper, World Bank.

questions. The forms are filled out by ATEOs in consultation with the head teacher and teachers of the school. The completed forms then go to the TEO and the Thana Education Committee who make final decisions on grades for the schools based on the number of points received. The highest number of points for any school is 100. The criteria for grading include gross enrollment rate, attendance rate, dropout rate, effectiveness of the SMC, results of school examination and more subjective criteria including attendance and dutifulness of teachers, cleanliness of premises, meetings of the PTA, extra-curricular activities and record keeping. The initial ranking of schools is shown in Table 1.5.

17. The significance of the grading is that sanctions are applied to schools in the D grade. If a school received a D grade, the PMED excludes them from receiving wheat as part of the Food for Education program. If a school wants to improve its grade, the DPEO has the authority to investigate and improve the grade if applicable.

18. The PMED has also initiated routine self-evaluation by school authorities in the form of performance monitoring reports to be filled out by Head Teachers and the Chairperson of the SMCs. Head Teachers and SMC Chairpersons evaluate the school's facilities, classrooms, teachers and learning environments. The performance monitoring reports are submitted quarterly to the office of the TEO where a file is kept on every government and non-government registered primary school in the thana. In addition, in government Model Schools the PMED has piloted student profile cards that list information that include a student's height and weight, parent's income and mode of transport when coming to school. Among other things, the cards will contribute to more accurate reporting of enrollments.

19. In addition to the advantages of strong government commitment and improved management, a wide range of homegrown non-government institutions provide substantial support for primary education. A large and growing number of schools run by non-government institutions use new and well-conceived learning strategies which help children to become literate and numerate in a short time and in a sustainable way. Non-government institutions are particularly active in the delivery of primary education to the economically most disadvantaged children in Bangladesh. Non-government institutions enroll more than 2 million students, but they also demonstrate alternative, innovative practices compared with the public system. Schools run by non-government institutions generally use innovative approaches and teaching methods and tend to have high efficiency rates. One of the largest non-government institutions involved in primary education in BRAC (Bangladesh Rural Advancement Committee). BRAC schools are one-room schools in under served poor rural communities. In total, BRAC schools enroll 1.3 million children. BRAC follows its own materials and teaching methods and their schools offer high quality and effective schooling for very poor children. Class size is strictly limited to 30-33 students. Promotion in BRAC schools is close to 95 percent for the three grades offered. The main reasons for the effectiveness of BRAC schools are that their schools are well organized, children enjoy them, class sizes are manageable, schools are located close to student's home and the teachers are interested in student promotion and take their work very seriously.

20. Textbooks and teachers represent other strengths of the system. Except the students who attend non-formal schools run by non-government institutions, all other students⁷ at the primary level receive a free set of textbooks, although not always on time.⁸ The textbooks are of reasonably good quality. They are well designed and interesting. Textbooks are based on a revised curriculum that is supported by 53 competencies designed by the NCTB in consultation with stakeholders. The competencies encompass an impressive array of topics: respect for all religions and people, competency, relevancy and usefulness of Bangla; and addition,

7 In early 1998, the PMED decided not to give free textbooks to non-government institutions such as BRAC and others who provide primary education but not all five grades. Currently these non-government institutions have to pay for the NCTB textbooks used in their classrooms.

8 In 1999 the NCTB decentralized the system of textbook distribution and claims that this new procedure has reduced or eliminated delays

subtraction, multiplication and division for daily life. The curriculum has begun to stress higher-order skills such as thinking and problem solving. Bangladesh's achievement of producing and distributing reasonable quality books throughout the country is stellar. Moreover, most government primary school teachers have basic qualifications, as seen in Table 1.6. Nearly 60 percent have completed at least 12 years of education. In addition nine teachers in ten have completed one or two years of teacher training.

21. The government has recently introduced a scheme of continuous training of teachers through the Assistant Thana Education Officers and Primary Training Institute (PTI) instructors in school clusters. Under this scheme, all the teachers of a sub cluster attend a daylong training session once every two months with their respective ATEOs.

22. The system enjoys a well-developed policy framework and investment plan for 1997-2003, financed by ADB, IDA, Germany, UNICEF, Norway and DFID. There is widespread agreement about the priority interventions of institutional capacity building at the thana and district levels, C-in-Ed curriculum revision, teacher training of registered non-government teachers, provision of free stationery to the poorest students and social mobilization which aim at improving the basic quality of primary education.

23. Primary education in Bangladesh can also be considered highly efficient in terms of the ratio of inputs to outputs. Questions of quality aside, the system has been able to enroll students at a remarkably low cost per student. Given very large class sizes as well as relatively low teacher salaries, the recurrent cost per student per year is only US\$13 or less, one of the lowest in the world. Expenditure per student is only about 3.6 percent of GNP per capita, low compared with 11 percent in Malaysia, 13 percent in India and 16 percent in Thailand.⁹ As a result of low cost per student year, the cost to the government of putting children through school is low. Even in terms of cost per graduate, which accounts for wastage in the system, primary education in Bangladesh compares favorably with other low cost systems in the region, such as Vietnam and India (Volume I, Education Finance). However, low expenditure per student has another, more perverse side, in terms of implications on quality and learning achievement. As discussed in the next section, this low unit expenditure finances attendance of children for less than 3 hours a day during only about 140 days a year.

D. WEAKNESSES

24. Despite its numerous strengths, the system of primary education in Bangladesh suffers from major weaknesses. The main problems are quality and management. The system is evaluated in terms of three criteria, namely: external efficiency, or the relationship of outputs to social and economic needs; effectiveness and quality; and internal efficiency in the use of resources.

External Efficiency

25. The basic questions of external efficiency for primary education terms are: do children have equal chances for access to attend basic education and to achieve equal outcomes? When in school, do students acquire the knowledge, skills and attitudes that they will need for productive lives later?

Table 1.6 : Educational Qualifications of Govt. Primary School Teachers

Educational Qualifications	Percentage
Secondary School Certificate	49.6
Higher Secondary Certificate	35.7
College Degree	13.4
Others	02.3
C-in-Ed or B-in-Ed training	90.5

Source : UNICEF, 1995

26. **Equity.** Quantitative coverage of primary education is clearly a strength in Bangladesh. Roughly nine in ten eligible children enroll in primary school. However, about 40 percent of those drop out before completing primary education. This means that about 2.2 million eligible children do not attend primary school either because they never enroll or they dropout before completion of the cycle. Enrollment rates vary by socio-economic group. About 70 percent of poor children attend primary school and, as indicated previously, this is a better record than other South Asian countries. However, only about 40 percent of the children of very poor households enroll in school.¹⁰ The reasons for non-attendance are mainly financial: the parents cannot afford the direct or indirect (opportunity) costs of attendance. The families are so poor that the children must work. Bangladesh has achieved a relatively high rate of enrollment for such vulnerable groups, but now the question is what should be done to reach the children who cannot participate in primary education.

27. In part the hard-to-reach 10 percent are difficult to reach geographically. They live in remote or inaccessible areas, such as the Chittagong Hill Tracts or the "chors". Some areas have an oversupply of educational facilities with very little provision in others. Large percentages (40 percent) of the extreme poor reside in rural areas, yet villages in remote areas sometimes have no provision at all. Urban provision mostly comes at an unaffordable price¹¹ and is neither appropriate nor accessible for the poor communities who have migrated to cities, many of whom are working children. Disabled and ethnic minority children also constitute the hard-to-reach. There are neither facilities nor relevant curriculum and textbooks in schools for both these groups.

28. The government's program for accommodating the hard-to-reach 10 percent includes a large school construction program to cover under served areas of the country. The IDA credit finances targeted subsidies for stationery and school supplies to attract and retain these children by reducing direct costs of schooling. This may however not be enough for the poorest of the poor. Reaching this group would require special programs with components other than education such as school nutrition programs, health and sanitation, compensation for lost income and also motivational/awareness building programs. Poorer students would have to be motivated keeping in mind the high opportunity costs for them even at the primary level. Several studies have found that children in a Bangladeshi village were economically active from the age of six and boys were net producers by age 15. The average wage for boys is Tk. 464 (US\$9.50) per month and for girls is Tk. 291 (US\$6) per month.¹² The government has recently started financing primary education for hard to reach working children through non-government institutions. There is also an incentive program financed by GOB, the Food for Education Program (FFE), under which children who come from landless and very poor families are given up to 15 kgs. of wheat a month if enrolled in school. In addition, GOB along with the Ready Made Garment Industry and donors UNICEF, ILO the DFID and SIDA have provided non-formal education for urban children in the informal sector as well as in the garment industry. The two programs combined benefit about 360,000 working children.¹³ Special attention also needs to be given to providing relevant schooling for children with special needs and ethnic minorities.

29. More needs to be done to provide positive role models in the teaching population so as to reinforce and sustain the progress towards gender parity. Schools run by non-government institutions have very high proportions of female teachers at the primary level, but the state primary system employs only 28 percent female teachers (up from 21 percent over the past six years – see Fig. 1.1). The proportion of female teachers is a little higher in urban than in rural schools. It has been found that a high proportion of female teachers is an important factor in promoting enrollment of girls in schools. Female teachers, who outnumber male teachers in non-formal centers, have been found to be more effective in terms of their regularity in attendance

10 Asian Development Bank, Secondary Education Project, draft.

11 Parents absorb both the direct and indirect (foregone income or labor) costs of primary education. Tuition and books are free, but direct expenses include costs such as uniforms, transport, materials and donations to the school

12 Martin Ravallion and Quentin Wodon. *Does Child Labor Displace Schooling?* (Draft) World Bank, 1999.

13 There remain however, about 5.8 million working children between the ages of 6-10 who do not attend school

and creating a caring environment in the classroom.¹⁴ The government has plans to raise the proportion of female teachers to 50 percent over the next several years, but this requires the recruitment of an additional 100,000 female teachers. This would mean a major change in the system of management and strengthening local community involvement around each school.

30. Orientation. The second issue concerns the relevance of what is taught. In the primary sector, students at all levels of the system need to learn markedly different things from what is currently taught in the education system, such that what they learn is more relevant to life in a democracy and a global market economy. The curriculum is well rounded and carefully designed, but the issue remains its delivery in the classroom and what students actually learn from it. Although the curriculum needs some reworking both on the cognitive front and in the domain of attitudes and values, it is well designed to inculcate numeracy. The traditional method of teaching the basics has been changed to present such material in the context of mathematical logic. However, higher order skills need to be emphasized—such as analysis and problem solving—rather than rote memorization only. While rote memorization is necessary in learning certain facts and formulas and helps instill a solid foundation in a child's learning, children also need to acquire the ability to learn on their own, so they can continue to learn after completion of schooling. They need to know how to work in groups. What are needed are broad skills, not just the memorization of specific facts. Today, there exist excellent models in Bangladesh of content that emphasizes relevant analytical skills, particularly in some of the basic education programs provided by non-government institutions. The non-government institution programs also show how curriculum can be developed to suit the realities of life that poorer people experience and make learning relevant. Beneficiaries and parents also need to view primary education not just as a stepping stone for the secondary level but as an investment which may provide improvements in their immediate life circumstances. Unless the curriculum is seen as attractive and relevant poor people cannot afford the opportunity costs of attending school and cannot use the education to better themselves.

Effectiveness

31. Primary education is evaluated below in terms of effectiveness, that is, how well it functions and achieves its objectives. This has two main aspects: quality of learning achievements and management effectiveness.

32. Quality. Insufficient information exists on student learning achievement, but it is widely held that at present students complete five years of primary education with a mastery of only about three years of the content. A study of basic skills among the rural poor showed an even more extreme scenario, that only one-third of those who had completed primary school had mastered basic skills in reading, writing, oral and written arithmetic. Achievement of minimum skills level was: 28 per cent in reading, 13 per cent in writing, 37 per cent in oral mathematics.¹⁵ This is not normally enough to sustain basic literacy and numeracy. Another study conducted among 2100 children age 11-12 years showed that only 46 per cent of primary school graduates satisfied the criteria of basic education¹⁶ (UNICEF, 1992). Currently, the focus has shifted from getting children enrolled to ensuring that all enrolled children have mastered the basic academic skills.

33. Why should learning achievements be so poor in a system that has wide distribution of reasonable quality textbooks and a large number of trained teachers in government schools? The reasons mainly have to do with low "time on task"¹⁷ for students, under qualified teachers from non-government registered schools and lax supervision/support for teachers by the administration.

14 Jalaluddin and Mushtaque, *Universalizing Quality Primary Education in Bangladesh*, p. 125

15 Greaney, V. Khandker, S. and Alam, M., 1998, *Bangladesh Assessing Basic Learning Skills*, Washington DC World Bank, p 2

16 A child was considered to have basic education if she/he satisfied the following criteria. i) correctly answered 75 percent questions on a comprehensive passage; ii) correctly communicated a message through a letter, iii) correctly answered 3 of the 4 mental arithmetic questions; and iv) correctly answered 70 percent of the life skills questions

17 "Time on task" means the time spent in classroom on actual learning, as opposed to administrative chores, housekeeping matters, sports and social activities. Time on task has been found to be highly correlated with learning achievement of students

34. Students spend a limited number of hours in school. The total number of instructional hours in grades one and two is very low compared to other Asian countries (444 versus 1,100 in Indonesia and 1,235 in China). There is evidence that even at the primary level in both rural and urban Bangladesh, there is a widespread prevalence of private coaching, Tk. 502 for boys per annum and Tk. 540 for girls per annum.¹⁹ This reflects the lack of instructional time in the classroom. In addition to having to teach two shifts of children (Grades 1-2 from 9:30 a.m.-12:00 noon and Grades 3-5 from 12:15 p.m.-4:00 p.m.) each day, primary school teachers tend to spend a considerable portion of their time conducting other work such as collecting data on child surveys, health and immunization work, sanitation and mobilization, the Total Literacy Movement,²⁰ food distribution in the Food for Education Program,²¹ as well as census and voter ID distribution. Thus, there is little time in class for students, including only two hours per day in lower classes, and relatively few annual days of school. A study published in 1992 found that effective time devoted to actual teaching-learning activities in formal schools was less than 40 minutes per day.²² Teachers also tend to be professionally isolated and poorly motivated. A CPD study (1996) found that the last two periods of a school day were only held regularly in 40 percent of government primary schools. In 40 percent of the non-government schools these periods were not held at all or at best held irregularly and taught in an uninteresting manner. The last two classes are usually natural science and environment and social sciences. The reasons for not holding the last two classes tend to be varied. The teacher may be absent, may leave early, may be deployed to do other work (25 percent), or be required for various non-school activities such as described earlier (18 percent).²³

Table 1.7: Daily School Timing in Primary Schools Managed by Selected Organizations

Type of Organizational School	Daily School Time (min.)
Dhaka Ahsania Mission	150
BRAC	180
GSS	165
Proshika	180
DNFE ¹⁸ Schools	120
Formal Primary School (Class I&II)	120
Formal Primary School (Class III&V)	240

Source: Habibullah et al, 1996 Universalizing Quality Primary Education in Bangladesh

35. To compound matters, daily attendance of teachers has been low. Low attendance, or "irregular presence",²⁴ has to do with additional work assigned from the center (described above), weak accountability, lack of motivation due to lack of incentives, promotions etc. and -according to anecdotal evidence- side businesses run by teachers such as farming, shop keeping etc. In addition to absenteeism, teachers may combine two classes and teach three hours per day instead of six. Teachers are not penalized for absenteeism or for shortening students' instructional time. The pervasive feeling among teachers is that they are government servants and therefore entitled to pay regardless of whether they perform their teaching duties. ATEOs are supposed to be constantly in and out of schools working with teachers, head teachers, and local communities and supervise 10-15 schools a month. However, they usually end up supervising 30-35 schools. The ministry has taken steps to improve lax school supervision recently, and there is a strong component in the PEDP towards this end. Discussions with PMED officials reveal, in their frequent field visits, they have

18 Directorate of Non formal Education

19 See Volume I, Education Finance, Table 3 8

20 See Volume II, Non Formal Education for details on this approach to achieving adult literacy

21 Food for Education is a GOB program where 40 percent targeted poor children are given up to 10kg of wheat.

22 Karim, AHM, 1992, *School based Primary Education in Bangladesh: Review*, UNICEF, Dhaka, Mimeograph

23 Center for Policy Dialogue, *Growth or Stagnation?* p. 349

24 According to PMED officials, outright teacher absenteeism is no longer a major problem. Most teachers attend each day but may not stay for the full school day. "Irregular presence" may be a more apt word than absenteeism

found cases where ATEOs do not visit the schools for inspection but have the head teachers fill out the school inspection forms. TEOs and ATEOs tend to function more as statistical officers than education facilitators, spending most of their time on administrative tasks and distribution of food and textbooks. As discussed under strengths, the PMED has set up a primary school grading system, performance monitoring report and student profile cards which have been piloted. However, the information gleaned from these reports is seldom used to reward, penalize or improve the school. The only sanction applied so far is that schools with a D grade are excluded from FFE. Moreover, Thana Education Committees do not publicize a particular school's grades within the community, which would build accountability as well as awareness among parents.

36. A key ingredient for quality improvement is the establishment of incentives for teachers and school managers to improve learning outcomes. One incentive is to define the characteristics of good schools and good teaching at the institution level as a standard for improved performance. Another incentive is to involve parents and communities more in school management and hold paid personnel accountable for results. The School Management Committees (SMCs) and Parents Teachers Associations (PTAs) which are part of the school decentralization process and are there to augment the democratic governance of school administration, do not enjoy the administrative and financial resources needed to function effectively. First, the role of the members of the SMC are not defined beyond that of the chairperson. How an SMC should conduct its business, who should chair it, etc. are all policies dictated from the top. A 1994 Asian Development Bank (ADB) study²⁵ found that the general feeling in the rural areas is that SMC/PTAs are "committees on paper". Another study documents the relatively ineffective operations of the SMCs.²⁶ In addition, other SMC documents reflect improper recording of minutes, agenda and background papers and ineffective channels of communication. The SMCs tend to go through the motions of transacting routine businesses in order to maintain bureaucratic compliance and documentary evidence.

37. Financial incentives can be provided for innovations initiated by teachers and schools. This bottom-up model of innovation is crucial to establishing the demand at the classroom level for the necessary supporting inputs (e.g., teaching materials, in service teacher upgrading, etc.). This contrasts with the more typical top-down approach of merely providing better inputs for the schools on the assumption that they will automatically be delivered and used effectively. To begin with, achieving better quality and more equality requires a systematic assessment of learning—measuring outcomes of the system at all levels on a continuous basis and feeding the results into both policy making and educational process. Continuous assessment, which is almost totally absent at present, requires the development of a national capacity for learning assessments that is practical and workable at the classroom level. The desired learning outcomes are what count and resources need to be applied much more efficiently to achieve them. This entails much greater flexibility in moving resources around in the system targeted upon those expenditures that make the most difference to learning, and building institutional capacity throughout all levels of the system.

38. **Management and Administration.** There is a general consensus that one of the subsector's major weaknesses is management. The primary education system must be far better managed than it is at present, in terms of defining strategic objectives, mobilizing and allocating resources, monitoring implementation to achieve priority goals and finding more equitable ways of distributing resources (by geographical regions [urban/rural], gender, and income groups). In spite of strong measures taken in PMED since 1997 to improve

25 Haq and Booth, 1994

26 Jalaluddin and Mushtaque, 1997, examined the documents of a government primary school managing committee. The authors found that the "Bilash Nargar" Government Primary School held nine meetings out of mandated twelve meetings in a year. Out of 36 meetings required to be held in three years (1992-1995), five members were present in nine meetings. Interestingly, 27 meetings did not reveal member's presence. An indication of the quality of SMC activities can be gleaned from the list of topics at the meetings which include a discussion of compulsory primary education, overall development of the school, annual sports, organization of a cultural fair, SMC election and formation of a new committee, present school condition, tree plantation, school furniture, distribution of school textbooks among students and mother's gathering. *Universalizing Quality Primary Education in Bangladesh* p 89

the management of primary education, much more needs to be done. Far too much effort is focused on administration of the system (e.g., controlling inputs) and enormous resources are wasted introducing incomplete and inadequate results. The organizational structure within DPE values administrative compliance and is focused on input rather than being reliant on managerial initiative and oriented to results. Decision making processes are reactive with senior officers being reliant on intuition, experience and anecdotal evidence. There is no business cycle of planning, monitoring, evaluation, and reprioritizing resource allocation to achieve predetermined standards of service. Expected performance levels are quantified in terms of inputs and not expressed as quality outputs.

39. Capacity within the government to address sector wide issues is weak; the PMED and the implementing agencies (DPE, NAPE and field level units) have suffered from poor planning, compounded by weak data, highly centralized decision making and has resulted in overloaded implementation and supervision capacity, as well as inadequate monitoring. The government's program will address these issues at the level of PMED and the implementing agencies. UNICEF will continue to assist the government with local level planning and with community mobilization. Communities and parents should be empowered to hold schools accountable while greater authority should be devolved to school managers and those in local headquarters so that available resources can be adjusted to local demands and circumstances. The role of the central government needs to change vis-à-vis the lower level administrative authorities in the direction of less direct administration and more policy planning, information analysis, standard setting and system evaluation. Far too many decisions clog the top levels of the administration when they could be handed down for greater effectiveness. Rapid decentralization of authority could also help overcome roadblocks to effective PEDP implementation.

40. The public sector should be willing to finance service delivery by non-government institutions where such organizations have demonstrated the capacity to provide quality services at reasonable cost. This is happening already in non-formal education where non-government institutions provide many of the adult literacy programs and, to a limited extent, in primary education where the government has started to finance non-government institution delivery in hard-to-reach areas. Furthermore, the public sector would do well to contextually adapt practical innovations into public education based on the experience of non-government institutional provision of education. The public and non-government systems are not comparable given the difference in size and scope and therefore, not all innovations will be applicable or feasible in the formal public system. However, the content, structure, and approach of non-government institution-delivered basic education has much to offer to the system at large.

Internal Efficiency

41. Internal efficiency is the relationship of inputs to outputs. In one sense, the system is efficient in terms of the low costs for enrolling a student and producing a graduate. However, the other side of the coin looks at the wastage of resources in the primary system at present.

42. As shown in Table 1.8, only about 50-60 percent of the students initially enrolled stay in the system to reach Class V. This means that 40-50 percent of the students drop out at some stage of primary education.

43. In these terms inefficiency is high – huge resources are wasted on students who drop out. Most students take six years to reach fourth grade. On average it takes 8.7 years of instruction for each graduate from the five-year cycle. Table 1.8 shows the rate of progression through primary school, which ideally should be 100 percent. The rate of progression has improved from 53.4 percent to 59.2 percent for the cohorts reaching grade V in 1994 and 1995, respectively.

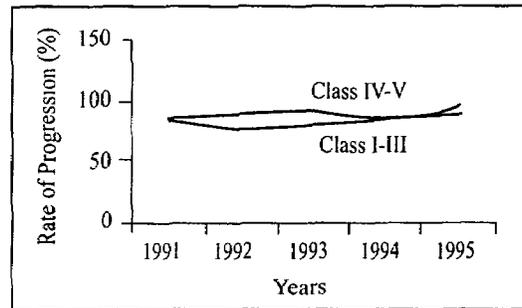
Table 1.8: Rate of Progression (percent)

Class	1991	1992	1993	1994	1995
I-II	83	78	81	85	90
II-III	90	88	93	94	96
III-IV	83	79	85	85	88
IV-V	86	88	92	86	96
Cumulative Class I to Class V:				53.4	59.2
				percent	percent

Source: Staff estimates based on BANBEIS, 1997.

The government's program includes components to strengthen all levels of management in the primary education system (national, district, thanas and school). Decisions on resource use will be devolved to the local levels through a system of block grants for purchase of school supplies and materials. Specific policy measures have been taken to improve efficiency of resource use on three major expenditure items: (a) teachers will be deployed according to the target teacher student ratio of 1:45 per shift; (b) construction of schools/classrooms will be based on school mapping and in line with the policy that no child will be more than 2 km away from a school; and (c) the distribution of textbooks will remain free to all children and government will phase in a reuse policy.

Figure 1.2: Rate of Progression in Primary Schools



E. GOVERNMENT PLANS AND POLICIES

44. As shown in Volume I, the demographic pressure on the primary education sub sector is expected to decline from the present 18.5 million (1998) children to 15 million by 2010 and would subsequently remain stable at this level. This decline in the size of the primary school age group should release resources which could be redeployed in improving quality, equality and efficiency in the system, i.e., the number of students in classrooms will become smaller, the student teacher ratio will improve automatically and there will be less demand on the government's overheads.

45. Government's development objectives for the sub-sector are to: (a) improve school quality and system efficiency; (b) establish a sustainable, cost-effective and better-managed education system; and (c) ensure universal coverage and equitable access to quality primary schooling.

46. Specifically, government's objectives for primary education in the five years from 1998-2003 are to:

- Increase net enrollments from 85 percent to 95 percent.
- Increase primary school completion rates from 60 percent to 75 percent.
- Raise learning achievements so that 85 percent of completing students will achieve at least grade 4 level competencies in literacy, numeracy and life skills.
- Improve school management and academic supervision.
- Reduce cost per graduate by increasing instructional time and teacher productivity, and reducing grade repetition.
- Allocate education resources more efficiently through: (a) textbook reuse; (b) provision of additional classrooms rather than building new schools; (c) highly targeted new school construction based on demographic criteria; and (d) targeted subsidies to increase enrollment and attendance of girls and the poor in selected urban areas and under served rural communities.
- Improve institutional capabilities at national, district, thana and school levels in management, planning, implementation, monitoring and information analysis.

47. Progress towards the objectives will be measured by: (a) learning achievement based on national assessment of Bangla and mathematics carried out in years 1, 3 and 5 of the project; (b) primary school completion rates - total, by gender and location (the poorest 15 percent of thanas and wards); (c) teacher quality based on the percent with Certificate in Education - total, by gender and school type; (d) teacher performance as measured by changes in classroom practice; (e) preparation of annual operational and expenditure plans; (f) numbers of months of staff development and training for school managers; (g) expenditures within 5 percent of annual targets; (h) gross enrollment and net enrollment ratios; (i) cycle costs; (j) physically adequate schools - by school type and location.

48. The priority for the coming years is the implementation of PEDP with all its policies, investments and community mobilization strategies. The risk is that it might prove difficult or impossible to implement the policies and the programs as designed, due to its massive scale, low implementation capacity of the government, poor incentives for teachers and poor opportunities to continue in school.

Careful monitoring, well-coordinated donor assistance and continued government support are required for success.

F. VISION FOR 2020: REORIENTATION AND QUALITY IMPROVEMENT

49. Bangladesh by 2020 should have achieved a strong system of basic education with virtually all children enrolled and completing primary education with at least minimum levels of competency directly related to life skills. Primary education for poorer groups would be supported by targeted preschool education addressing nutritional, health, and didactic concerns. For those previously bypassed by the formal system, a variety of non-formal programs would be available that combine literacy with life and income-generating skills. Adult literacy rates should have increased to 90 percent, based on increased school attendance of youth and successful literacy programs provided through non-formal means.²⁷

50. Within the primary sub-sector, emphasis should be placed on: (a) raising learning achievements, or quality, to acceptable levels and (b) consolidation and completion of universal enrollment by targeting the enrollment and retention of hard-to-reach poor youth. Quality is a priority because poor learning achievement as a result of inappropriate instructional programs, not access to school, are now the binding constraint on education's contribution to development. Further, the path to resolution of the remaining access – and retention – deficits lies in significant measure through a quantum leap in the quality of the educational experience. Education is a basic human right, it is for personal development and fulfillment as well as for cognitive and functional skill development, and is therefore essential for democracy.

51. Sustained progress should be possible in primary education. Bangladesh's substantial progress in halving its fertility rate will be felt principally at the primary school level over the next two decades. Given the decreasing demographic pressure, investments can be devoted increasingly to improving the quality of what happens in the classroom rather than the basic physical space for schooling. The government's PEDP which is a comprehensive investment program from 1998 to 2003 should result in the provision of the basis for sustained progress. Above all, the country is fortunate to have several homegrown alternative methods of primary education developed and perfected by non-government institutions, which provide valuable experience for improvement of public primary education.

G. STRATEGY

52. Strategic objectives for the system of primary education have been defined in detail for the Primary Education Development Program. These objectives stress that the highest priority must be assigned to quality improvements and strengthening of management. Improvements in quality and management capacity from the bottom up will inevitably raise completion rates and reduce wastage and inefficiency in the system. The good news from the financial analysis in Volume I is that, subject to certain optimistic assumptions about continued growth, the government should be able to achieve universal primary education and raise quality within existing spending as a percentage of GDP. The investments in quality improvement themselves should go a long ways towards correcting problems of inefficiency in the system. As found in other environments of extreme inefficiency and underfinancing, as in Northeast Brazil,²⁸ quality enhancements can actually help address remaining deficiencies in coverage and greatly improve completion rates. Strategic objectives in primary education and alternative means of achieving them are listed below.

27 World Bank and BCAS, 1998, *Bangladesh 2020*

28 Ralph W. Harbison and Eric Hanushek, 1992, *Educational Performance of the Poor. Lessons from Northeast Brazil*, New York, Oxford University Press

Table 1.9: Objectives and Means

Objectives	Means
<p>1. Increase the relevance and usefulness of teaching content.</p>	<ul style="list-style-type: none"> ¥ Evaluate curriculum content, its objectives, scope and sequencing of subject matter; after evaluation create an achievable, relevant curriculum that is supported by a better balance of textbooks, supplementary reading materials and teacher guides. The following activities would help achieve these activities: ¥ Analyze the content of present curricula in terms of their contribution to higher order skills, such as problem-solving. ¥ Adapt successful non-government institution models and materials for use in regular classrooms and change teaching materials accordingly ¥ Revise teaching programs to achieve the development of higher order skills. ¥ Retrain teachers in methods for teaching such skills.
<p>2. Improve quality of learning achievements.</p> <p>[Target: 85 percent of completing students should achieve at least Grade 4 levels of competencies in literacy, numeracy and life-skills]</p>	<ol style="list-style-type: none"> 1. Increase time on task' by: <ul style="list-style-type: none"> ¥ Lengthening the school calendar. ¥ Increasing instructional time per day ¥ Increasing teacher attendance by reducing the amount of out of school tasks of teachers such as collecting census info, TLM etc., establishing accountability and an incentive system for good performance. 2. Improve school performance by: <ul style="list-style-type: none"> ¥ Defining the characteristics of good performance. <ul style="list-style-type: none"> • Encouraging self-analysis of school performance by teachers, administrators and communities as is being done by the Performance Monitoring Reports that are filled out by Headmaster and SMC Chair. • Encouraging schools to develop school improvement plans based on the results of self-analysis • Rate schools according to objective criteria • Financing competitively the best of the school improvement plans through establishment of a school improvement fund • Preparing district improvement plans based on school plans. 3. Increase teacher performance in classrooms by: <ul style="list-style-type: none"> • Establishing financial incentives for improved effectiveness, e.g., awards, salary increments. • Establishing non-financial incentives for good performance, e.g., teacher recognition schemes; peer consultation; additional teaching supplies • Encouraging teachers to prepare proposals for classroom innovations and finance them through an innovation fund. • Establishing capable academic supervision (i.e., coaching) for teachers at the local level – by head teachers and ATEOs. • Establishing competency and performance standards for teacher training institutions and teachers, and an incentive system of good performance. 4. Measuring student achievement systematically, as a tool for diagnosing system and school performance, including:

Continued

Continued Table 19

Objectives	Means
	<ul style="list-style-type: none"> ◦ National achievement tests at key grades within the system with results feed back to schools for improvements – this will require the development of national testing capacities. ◦ Extensive training of classroom teachers in how to conduct assessments of student learning routinely
<p>3. Increasing equitable access: increase access of hard-to-reach children.</p>	<ul style="list-style-type: none"> ◦ Support new schools in under served areas within 2 km, a minimum of 150 students and a minimum population of 2,000 ◦ Establish early childhood education programs targeted on children from the poorest families. ◦ Undertake school nutrition programs. ◦ Conduct motivational, awareness and other training programs conducted for the SMCs. ◦ Develop pedagogical techniques relevant to girl's education, i.e., gender sensitive, in PTIs and NAPE. ◦ Provision of better health and hygiene i.e. latrines and tubewells. ◦ Provide all primary school going children with free textbooks, regardless of the type of primary institutions they attend. ◦ Compensate for opportunity costs of schooling by providing incentives such as free stationery and uniforms
<p>4. Strengthen institutional and management capabilities for an effective, equitable and better managed primary education system.</p>	<ol style="list-style-type: none"> 1. Define the roles and responsibilities of GOB institutions so that they may better facilitate the delivery of quality primary schooling in both public and private schools. <ul style="list-style-type: none"> ◦ Delegate decision-making responsibilities for planning, budgeting, and implementation to districts, thanas and schools. ◦ Establish annual operational expenditure plan format to link each department's key activities, achievements, expenditures and performance targets. ◦ Create and implement a results oriented management development plan for all managers ◦ Give managers timely access to evaluation reports about their areas of responsibilities. ◦ Establish standardized financial and accounting procedures. ◦ Design better management information systems 2. Increase community ownership of schools: <ul style="list-style-type: none"> ◦ Increase SMC participation through an expanded block grant for decisions on school maintenance, books and learning materials ◦ Give block grants to thanas for local planning decisions on school rehabilitation and physical facilities.

53. The best choice for implementing the strategy and making maximum impact on primary education is to successfully implement the PEDP. Of all priorities, PEDP implementation is the highest. If all the components of PEDP are implemented vigorously and the proper evaluation takes place and appropriate lessons are derived from experience, then a significant number of issues will have begun to be addressed. PEDP by itself will not solve all the problems. Successor investments will need to be carried out for the next ten to fifteen years.

ANNEX: EARLY CHILDHOOD CARE AND EDUCATION FOR DEVELOPMENT

A. INTRODUCTION

54. In Bangladesh, care and education of children from birth to age 8 is the role of the family. However, some families do not or cannot provide the physical, emotional, social, and intellectual nourishment that young children need. This is more pronounced among the rural and urban poor where economic hardships may result in environments of deprivation, and caregivers may be too overburdened to give young children the responsive attention needed for optimal development.

55. Like other south Asian countries, Bangladesh started childcare programs during the 1970s. Child survival was the focus of the early programs. During the 1980s, the program contents expanded from child survival to child protection. Several international conferences on child rights and education held during the early 1990s catalyzed government and development agencies' interest in child development, which has become part of the mainstream agenda during this decade. As a result, the Government of Bangladesh has recognized Early Childhood Education (ECE) as a key component of basic education.

56. ECE generally refers to programs that focus on school preparedness for children 3–6 years of age. Early Childhood Development (ECD) often refers to programs that emphasize children's health, nutrition, and psychosocial development. Early Childhood Care for Development (ECCD), the model this document addresses, takes an even broader perspective. **It is a holistic and integrated approach to ensure proper childcare (prenatal through age 8) and leads to the maximum survival, development, and protection of young child through child-friendly, family-focused, community-based programs.**

57. In this paper, the working definition of ECCD encompasses both components—care and education. Care addresses the child's survival, development (physical, mental, social, and emotional), and protection. Care activities include all caregiver interactions with a child; nutritionally balanced food and feeding practices; health care and sanitation; and psychosocial and cognitive stimulation. Education is related to the process of learning by facilitating exploration and discovery, and establishing the foundation for a child's lifelong learning. Care and education encompass children and their parents as well as other caregivers and concerned members of the community. Three institutions—family, school, and community—are very important in developing a child's life. Therefore, ECCD programs should be comprehensive, child-centered, family-focused, school-based, and community-managed. ECCD programs can be diverse. For example, they might raise awareness of new mothers; prepare adolescent girls to be mothers; create child-friendly environments within the family; make schools ready for children; support centers and infant schools as extensions of families; and empower communities to effectively manage activities. ECCD programs strive to ensure that every child gets the interaction and stimulation, affection, security, and learning through exploration and discovery that he or she needs for optimal development.

B. RATIONALE FOR AN EARLY CHILDHOOD CARE AND EDUCATION FOR DEVELOPMENT PROGRAM

58. An early childhood care and education program in Bangladesh must address three issues: malnutrition among children under five, stunted cognitive and psychosocial development, and inadequate preparedness for primary education.

59. Research over the past two decades has revealed that the early years are critical determinants of adult learning capacity, social adjustment, and productivity. Investments in ECCD for children in poverty are very efficient and, when done well, very effective as well. Internationally, cost-benefit ratios from 1:4 to 1:7 characterize the long term impacts of investing in ECCD. Savings are attributable to improved efficiency of schooling, improved productivity of adults, reduced costs for social services and health care, and savings associated with reduced criminality. Additional benefits, such as smaller family size and improved education of the next generation have not been modeled well but could be anticipated in Bangladesh. Indirect benefits from early childhood interventions can include reduction of gender inequalities, increased female participation in the labor force, and increased community development efforts (Young 1995). These too are not included in the costs-benefit analyses.

60. **Reducing malnutrition.** Malnutrition is very common among the children under 5 in Bangladesh, more than 25 percent of whom are stunted. Malnutrition at early ages, excess disease, exposure to unsafe environments, and lack of stimulation damage children for the rest of their lives. Malnutrition, iodine deficiency, and anemia are prevalent among pregnant women, in some cases limiting the cognitive potential of their infants.

61. Over and above the opportunities they offer for feeding and nutrition education, ECCD initiatives can improve the effectiveness of nutrition programs. Recent research shows that improved care practices strengthen the impacts of feeding programs, resulting in better nutrition outcomes for malnourished children.

62. **Promoting total cognitive development.** Neurological research has shown that the brain structure of human infants is not in place at birth. The interactions of a young child with her or his environment and the people in it spark brain activity and cause the development of neuronal structures. The enhanced physical, social, and cognitive impacts of ECCD, as contrasted with, for example, nutrition programs as traditionally implemented, is that good ECCD programs give children new opportunities to act and interact. The children's actions and interactions, along with their genetic heritage, health, and nutrition, "wire" their brain circuitry, 80 percent of which is in place before the child reaches age 4.

63. Nutrition and health status affect cognitive development both directly and indirectly. Brain cells are formed and connected during the intrauterine period and during early years of life. It is vital for the future intellectual potential of children that pregnant mothers have an adequate food intake in quantity and quality, as well as sufficient vitamins and minerals. Children suffering protein–energy malnutrition (PEM) are inactive, unable to explore, play, and learn well, and thus suffer from diminished cognitive development. Children with PEM are twice as likely to repeat a grade and score 20 percent lower on achievement tests than children with normal nutrition.

64. Reducing education costs: ECCD programs increase school readiness, promote timely school enrollment, and improve academic skills. Therefore, dropout and repetition rates are lower and the need for remedial programs is reduced. Early childhood investments can reduce costs and improve the efficiency of primary schooling. Children who are physically, mentally, and socially better prepared for school have an easier transition from home to school.

65. Reducing other social costs. Effective child development programs can bring cost savings in health care, sanitation, and other public welfare expenditures; they also reduce the social and financial costs associated with juvenile delinquency and drug use.

66. **Building human resources.** Research has shown that 50 percent of a person's intelligence potential is developed by age four and that early childhood interventions can have a lasting effect on intellectual capacity, personality, and social behavior. Long term cohort studies in other nations have shown increased productivity among impoverished adults enrolled in ECCD programs. Comprehensive early childhood development programs are critical for optimal mental and psychosocial development and eventual adult productivity of the majority of children from impoverished homes.

67. **Generating higher economic returns.** By increasing children's desire and ability to learn, investment in early childhood education can increase the return on investment in later years by making subsequent education more effective. It can also enable participants to earn more and can raise their productivity in the workforce.

68. **Increasing gender equity.** Achieving gender equity in education is now known to be economically as well as ethically desirable. Educated women have fewer children and take better care of them. A mother's level of schooling is a better predictor of a child's cognitive growth, health, and reproductive outcomes than family income, breadwinner's occupation, or other household variables. Early interventions targeting girls reduce fertility as well as infant and child mortality rates. Expanding girls' enrollments, therefore, offers developing countries a cost-effective way to improve life expectancy and health and control fertility (Le Vine et al. 1994).

69. **Helping the disadvantaged.** Early childhood initiatives significantly help alleviate the situation of a country's most disadvantaged communities. In India's Haryana project, for instance, dropout rates did not change significantly for children from the higher caste but fell a dramatic 46 percent for the middle caste (Chaturvedi et al. 1987).

C. DIMENSIONS AND CHARACTERISTICS

The Dimensions

70. ECCD activities are carried out in formal, nonformal, and informal ways, especially in the areas of education, health, and nutrition. Present efforts at ECCD are characterized by participation of a variety of public and private agencies, multiplicity of approaches, and limited coverage.

71. In the formal sector, ECCD activities in education are provided within the mainstream primary school system of both government and private schools. There are two types of private schools: general and kindergarten. Usually, the government and general private schools run infant and baby classes for 6 to 12 months, and the kindergarten private schools run 3 classes for 36 months. In the formal sector, various government agencies run some health and nutrition related ECCD activities namely, orphanage, day care centre, nutrition centre and shishu bikash kendra (child development centers). In the informal sector, families, living in the urban areas offer baby-sitting or crèches. Available information on ECCD activities in Bangladesh is summarized in Table A-1.

Table A-1: Dimensions of ECCD Initiatives

Type of Initiatives	Main Providers	Number of Institutions	Size of the Service Receivers	Focused Areas
1 Infant or Baby Class	Government and private primary schools	42,000	1,050,000 children of age cohort 4-5	Education
2 Play Group and Nursery Classes	Kindergarten Schools (All Private)	8,960	483,600 children of age cohort 3-4	Education
3 Preparatory Class/Early Childhood Center	Non-government institutions	21	33,800 children of age cohort 4-5	Education
4 Orphanage	Social Services Department	76	2,250 children of age cohort 2-5	Education
5 Day Care Center	Department of Women Affairs and Non-government institutions	57	2,245 children of age cohort 2-5	Health and Nutrition

Continued

Continued Table A-1

Type of Initiatives	Main Providers	Number of Institutions	Size of the Service Receivers	Focused Areas
6 Nutrition Center	Bangladesh Integrated Nutrition Project	10,000	300,000 infants	Health and Nutrition
7 Shishu Bikash Kendra (Child Development Center)	Dhaka Children's Hospital Center)	2	25,000 children	Health and Nutrition
8 Family-based Baby Seating	Family-based informal initiative	14	100 children of age cohort 2-5	Health and Nutrition
9 ECD Training Center	Non-government institutions	2	167 teachers and parents	Education, Health and Nutrition
10 Satellite Clinic	Ministry of Health and Family Welfare	3,000	20,000 children	Health and Nutrition
11 Family Welfare Center	Ministry of Health and Family Welfare	3,100	20,000 children	Health and Nutrition
12 Maternal & Child Welfare Center (MCWC)	Ministry of Health and Family Welfare	90	20,000 children	Health and Nutrition.

72. **Infant/Baby Class at Primary Schools** Since independence in 1971, Bangladesh has run pre-primary classes at primary schools. Most primary schools were facing a potential problem with a considerable number of younger children aged 4–5 years who, because of curiosity, the desire to spend time with their elders, or to prepare themselves for schooling, were coming to school with their elder siblings. Most of the children did not have elementary knowledge of literacy and numeracy due to poverty. They belonged to disadvantaged families and their parents were illiterate and unable to provide any educational support to their children. The teacher community along with the School Management Committee came forward with the idea of setting up infant or baby classes at the primary schools. These classes were popularly known as "Small Class-I." The pupils of class-1 were divided into two categories—over 6 years and below 6 years. Obviously, the below 6 years' children needed separate coaching in order to prepare them for class-1 language and numeric work. As a result, all the primary schools started infant class engaged in providing school readiness type of program for under 6 children. Generally, after a couple of months, older children became ready for regular class-1. The advanced pupils were promoted from Baby class to Class-1. Thus, pre-primary education has been locally planned and implemented by the teachers' community. The regular teachers in both government and non-government primary schools who were on the payroll of the concerned schools shared the extra loads among themselves. Sometimes, the School Management Committees appointed volunteer teachers to run the baby classes with the hope that they would be provided with regular job when vacancies occurred. The teacher's community should be given credit for meeting the educational needs of these children through locally available resources without incurring any cost to the government or school management committees. About 42,000 (70 percent) of primary schools run infant/baby classes with 1.05 million students. 83. In 1998, the government formally recognized pre-primary education in the primary schools. In view of this, National Curriculum and Textbooks Board has developed a set of materials with the help of a professional group for the infant class. The material set consists of a primer, a teacher's guide and a set of teaching-learning aids. The curriculum of infant class mainly focuses on pre-reading, pre-writing and pre-numeracy skills along with basic concepts of patriotism. The primer has been designed on the basis of the "look and listen" method, supplemented by games and stories. This year, the government has distributed 100,000 primers and 10,000 teachers' guides to the primary schools on a pilot basis.

73. **Early Childhood Education Center (ECE).** The Integrated Non-Formal Education Program (INFEP), now the Directorate of Non-Formal Education, started ECE programs in 1993 in 69 thanas. Non-government institutions implemented the program with the support from government and UNICEF. The main objective of this program was to prepare children of rural poor families for primary school.

74. The curriculum was designed to develop the children's sensory, language, and cognitive skills. The teachers were trained in child-centered activity-based teaching-learning methods. There has been one teacher in place for each center with 30 learners. The classes run for 2 hours a day. One supervisor is assigned for 15 ECE centers, who provides technical and academic support to the teachers at the center and, through monthly refresher training, for all the 15 teachers together. ECE centers were provided with play materials and toys made locally. Teachers follow the teacher's guide but there is no primer for children. Whatever the children learn, they learn through play. So far 35 non-government institutions have set up 2,100 ECE centers during the last 3 years, benefiting 63,000 children.

75. ECE is a new approach in rural Bangladesh. It has created a lot of interest among the children and parents as well as in the community. Communities provided ECE centers with houses free of cost. Primary school enrollments increased in the ECE program areas. This project was completed in 1996, and thus services and enrollment figures do not appear in the table above.

76. **Preparatory Class/Early Childhood Education Centers by Non-government Institutions.** About 21 non-government institutions run preparatory classes, with a total of 33,805 learners. A few non-government institutions started setting up preparatory schools for the disadvantaged children of urban and rural poor in 1973/74. After 1985, some national non-government institutions came forward to complement the government's education program. The prime objective of these schools is to provide educational support to the disadvantaged children of the 4–5 year age group getting ready for enrolling in the formal schools. The specific objectives are to: establish foundations for lifelong learning; assist children with their overall development—socio-emotional, physical, and intellectual; ensure the opportunity of learning for every child according to her/his individual needs and learning style; and help children develop love and respect for their country.

77. In most cases, preparatory schools are center-based. The single classroom is known as a school. In some cases, two to three-room preparatory schools have also been set up by the non-government institutions. One teacher, trained in pedagogy and child psychology, is responsible for thirty children. These teachers give attention to all children, reply to children's queries, recite rhymes, and draw pictures. Activity-based, child-centered methods are being practiced. The learning programs of the pre-school education are skill-based rather than subject based, and skills are related to the learning processes. Course duration is one year. One of the important tasks of teachers is to stimulate children to learn. Teachers also help develop the intellectual skills of children, required for academic performances in schools. Most non-government institutions are using different types of teaching-learning aids along with or without primers. Emphasis has been given to developing cognitive, sensory, language, social, psychomotor, and activity skills.

78. **Kindergarten: Preschool Education.** Kindergarten (KG) education in Bangladesh involves 3–4 years of schooling. Children begin KG as early as 3 years of age, while enrollments begin from when they are 2½. The class distribution according to age is: 3 years for play group, 4 for nursery, and 5 for KG. In some schools KG classes are divided into 2 sections: KG I for age 5 and KG II for age 6 children. When a child enters primary school (class 1), he/she is over 6. However, these KG schools are usually extremely expensive and out of the reach of most people. Monthly fees range from 500 to 2500 Tk. per month for playgroup, and this amount increases with each class.

79. The aim of these KG schools is primarily to prepare children for formal schooling. The logical assumption is that the KG school environment should not only be a "home-substitute" for a child but a more attractive learning environment than his/her home. KG schools that have been able to build such environments are rated successful in minimizing the emotional trauma that a child undergoes when he/she has to leave the secure familiar family environment.

80. Though the concept of KG schooling grew out of these novel intentions, there are not many schools that have been able to achieve this level of credibility. The reasons are that the management and teachers of those KG schools seldom get necessary training, and management generally establishes these schools with profit-making intentions. There are about 8,956 KG schools providing support to about 483,624 students.

81. **Day Care Centers.** There are two types of day care centers run by government departments or non-government organizations. The first is for middle class children and the other is for those of the working class. The day care centers for middle class children are located in residential areas and are run mainly by quasi-trained personnel. These centers provide space for games and sports. Usually kindergarten schools run such centers.

82. The centers for working class children are generally located in the slums or near workplaces. These centers are managed by "ayahs" (traditional caregivers). There usually are two rooms found in working class centers, although the configuration varies from place to place depending on enrollment. Around twenty children are accommodated in each room. Care is given to infants aged 2 months–2 years in one room, and 2–5 years in the other.

83. Two ayahs look after the infants and perform all activities from washing and toileting to feeding; putting children to sleep and helping them in free play are also important tasks. One ayah helps the older children in personal hygiene. She also gives them lessons mainly on alphabets and numbers. After these, ayahs tell stories, help children recite rhymes, and facilitate game playing. The monthly service charges vary from crèche to crèche, with the average charge being TK. 40.00 without food and TK. 150.00 with food. There are twenty-one day care centers taking care of 2,245 children.

84. **Shishu Bikash Kendra.** Dhaka Shishu Hospital (children's hospital) set up a *shishu bikash kendra* (child development center) in 1992. The main objective of this endeavor is to provide services to children with developmental disabilities and neurological impairments as well as to normal children. The center provides support to both at the outpatient clinics and inpatient departments. A multidisciplinary professional team provides key services to the children and their families. It is a place where a child, normal or disabled, is assessed and treated through a holistic approach. The long term goal of the center is to improve functional skills and adaptive behavior of the children.

85. **Nutrition Center.** About 10,000 community based nutrition centers have been set up by the Bangladesh Integrated Nutrition Project (BINP) in forty thanas of Bangladesh. These centers provide support to mothers and newborn babies in growth monitoring, supplementary feeding, and health education. The upcoming National Nutrition Program (NNP) is likely to mandate a more holistic approach to nutrition that takes into account the need to not only address food intake but also caring practices in general.

86. **Orphanage.** There are 76 orphanages taking care of about 10,000 children of age group 0–9 years. These orphanages are run by the Department of Social Services. The orphanage authority usually provides shelter, food, clothing, basic medical care, and education.

87. **Satellite Clinics.** Satellite Clinics are the community-based clinical service centers organized for providing services to the outreach community, particularly women and children. Chiefly, preventive services such as health and nutrition education, antenatal care, EPI and vitamin A supplementation and other family welfare services have been provided. There are 13,500 wards in Bangladesh. Each union comprises 3 wards and only 3000 wards have satellite clinics.

88. **Family Welfare Center (FWC).** Family Welfare Centers are union-based general health care treatment clinics for mothers and children. There are 4,500 unions, only 3100 unions have FWCs that provide postnatal and pediatric care, immunization, and health education.

89. **Maternal and Child Welfare Center (MCWC).** Maternal and child welfare center is mainly a women's service center for all MCH-FP services. It provides antenatal care, normal deliveries, postnatal care, immunization sessions, childcare, birth control counseling service, and follow-up services. There are 55 district level, 12 thana level and 23 union level MCWCs in Bangladesh.

90. **ECD Training Center.** There are two ECD training centers run by non-government institutions. One was established by Save the Children (USA) as one of its program components, and which is financed by Plan International. Initially, GSS was involved with this process. The other initiative is known as the Institute of Childhood Education. All these initiatives are very new and so far have trained only 167 teachers, workers, and parents in different training courses.

The Characteristics

91. **Participation of Variety of Public and Private Agencies.** Four ministries support different child development programs with education and health components. These are the Primary and Mass Education Division of the Ministry of Education, the Ministry of Health and Family Welfare, the Ministry of Social Welfare, and the Ministry of Women and Children Affairs. Although each of these ministries has different types of programs for children, none has any well-defined policy guidelines for integrated ECCD services and the total development of children. Moreover, a variety of NGO and private agencies are also involved in financing and delivery of ECD services. There is rarely any coordination among the concerned ministries. As a result, although these are programs for children, they do not address the total needs of children.

92. **Multiplicity of Approaches** In ECCD, different government and non-government organizations have carried out different programs from diverse perspectives. These activities include preschool education focusing on pre-writing, pre-reading and pre-counting; nutritional projects for malnourished children; *shishu bikash kendra* where normal or disabled children are assessed and treated through a holistic approach, etc. Due to the diverse characteristics of the projects and sponsors, program inputs vary and these activities are designed and implemented in different forms. Unfortunately there has been little systematic investigation of the strengths and weaknesses of the various approaches. As a result, the variations in effects, impacts, and costs of these ECCD activities cannot be used to guide improvements and future investments.

93. **Low coverage.** In terms of geographical coverage in Bangladesh, the programs being run by the government, non-government institutions and private organizations so far have covered very limited areas of the country. Most ECCD programs are confined to urban areas, particularly, Dhaka, Chittagong, Khulna, and Rajshahi cities. Most rural areas are yet to be reached by any good early childhood program. In terms of population coverage, only one fourth of the target audience has been covered through different programs. Present numbers of children receiving ECD services are around 6,000,000. Half of the remaining 18,000,000 live in extreme poverty and need ECCD support. Of those who are now getting ECCD services, only 40 percent are very poor children.

94. **Poor program quality.** The quality of most programs tends to be poor inasmuch as they do not address the total development needs of young children. Research in the last two decades has demonstrated clearly the benefits and efficiencies of investing in quality ECCD services and the lack of benefits from poor quality services. Furthermore, brain research shows the importance of active learning, psychosocial as well as cognitive interactions, and play for optimal development (contrast these findings with the look and listen approaches cited in government teaching manuals). Most ECCD programs in the country are extremely ill organized and ill managed. Most suffer from lack of skilled personnel, irregular and insufficient supply of inputs, financial constraints, and poorly designed programs. There is not an effective monitoring system in place.

D. STATUS OF KNOWLEDGE

95. No systematic studies have been conducted in this field in Bangladesh. In 1998, UNICEF conducted a stocktaking of ECD initiatives. The report has not been published; however, the stocktaking is reportedly partial, not comprehensive. Save the Children (USA), PLAN International, and the GSS have also prepared some working documents. Those documents are incomplete and their scope is very narrow.

96. Recently UNICEF has started preparing its five year prospective plan and Save the Children (USA) is conducting a study for setting up its Institute of ECD. It is expected that the study will assess needs and provide strategic options for ECD initiatives in Bangladesh.

These gaps suggest the following:

- No single organization can provide data on the subsector. To prepare a strategy and systematic plan for program and policy purposes, a survey should be conducted encompassing the Ministries of Education, Health and Family Welfare, Social Welfare and Women and Children Affairs, as well as NGO efforts to determine who is doing what and map the policy framework for ECCD initiatives.
- There is no document that provides information on ECCD models in Bangladesh
- ECCD is context-specific. So far, Bangladesh has no information on what other South Asian countries are doing in the field of early childhood development

E. STRENGTHS AND OPPORTUNITIES

- a) Around 70 percent of primary schools run baby/infant classes depending on local community resources.
- b) Donors have a keen interest in investing in early childhood development programs in Bangladesh.
- c) There are some international agencies such as UNICEF, Save the Children (USA), and Plan International that have defined plans and programs for early childhood development
- d) Recently, the government has developed a set of pre-primary education materials, which are now being pretested in selected schools.
- e) Dhaka University's Institute of Education and Research and some affiliated colleges e.g., Dhaka Home Economics College, have been running courses in child psychology at both graduate and post-graduate levels.
- f) In urban areas people representing not only the middle class but also the working class are increasingly purchasing ECCD services.

F. CHALLENGES

97. Traditional and positive child rearing practices are on the wane. This can be attributed to many factors, e.g., lack of knowledge about the beneficial impact of the practices, mothers' emerging role as family breadwinners, a growing popular acceptance of small family norms, increasing rural–urban migration etc. ECCD initiatives are needed to help families and communities support the development of the next generation of citizens during this period of national growth and change.

98. At the government level, the concept of ECCD is still not clearly defined. Based on a concept of ECCD as support for children along with their parents and caregivers through education and health programs, the Ministries of Education and Health and a few non-government institutions have done some rather sporadic work for children. But the government has not undertaken any initiative to address children's holistic development.

99. The government has no well-defined ECCD policy. Policy reflects the vision of the nation. It also helps to guide decision makers and the program planners to design well-defined need-based programs.

100. As yet ECCD is virtually unknown to the general public.

101. Adequately educated and trained ECCD personnel are very rare.

102. Preschool facilities, curricula, and materials are inadequate.

G. PLANS AND POLICIES

103. There is no national policy for the early childhood development program. However, in two recent documents apparently some progress has been made towards such a policy. These documents are the draft National Education Policy and the Report of the National Committee on Primary Education. It may be noted

here that there is no mention of early childhood education in the Fifth Five-Year Plan (1997–2002) of the government. Some recommendations mentioned in the above documents are given below:

- The first six months of class 1 can be treated as the preparatory stage of pre-primary education.
- In the present situation where it is not possible to open five classes in primary schools, opening an infant class in every school will not be realistic, and furthermore, there may be no need for separate infant classes. Through education at a very infant stage, the natural growth of children and their freedom of thinking would not be interrupted. However, this would be expensive.
- At the pre-primary stage, in addition to the normal educational qualifications, teachers should have full knowledge of the physical growth of children, manifestation of the stages of mental growth, and the stages in socialization of the child. Teachers should be aware of food and nutrition, children's games and sports materials, children's rights, health rules, and innovations in educational materials and their use.
- Pre-primary education for children age 5 and over can be launched if resources like teacher-student ratios if 1:35, necessary classrooms, teaching aids, etc. are ensured.
- If early childhood education starts successfully, teachers for this purpose could be recruited.
- In the formal sector, ECCD activities in education are provided within the mainstream primary school system of both government and private schools. In the informal sector, families can develop babysitting cooperatives and/or crèches.

The challenge in both the formal and nonformal sectors is to identify and support cost-effective inputs to significantly improve the quality and quantity of ECCD services.

H. VISION OF 2020

104. Children of Bangladesh will be creative, productive, and visionary. None will remain malnourished. Each child will complete the primary school cycle without repetition. Twenty-five percent of children in the 0–5+ age group of resource poor people will be addressed through the ECCD program. It would be a package of comprehensive support services meant for the local community as a whole including children, parents, and other caregivers. This will be delivered through non-government institutions with support from family, school, and local community.

Issues and Tradeoffs

105. ECCD has to compete with other priorities. About 10 percent of the relevant age group is not enrolled in primary school. Why should ECCD be given priority over the enrollment of the hard-to-reach children who are out of school? More funds need to be spent on improving quality in primary education. Moreover, children that complete primary education are enrolling in increasing numbers in lower secondary education, straining resources at that level. If investments are made in ECCD, then funds will be limited for these other priorities.

106. The case for ECCD essentially is that it is: 1) a cost-effective investment over the long term that can be expected to pay back from 2 to 7 times the original investment, based on rates of return documented in other nations from Bolivia to the United States; 2) an effective strategy to achieve universal primary education, viz., results of the NGO initiative and international research showing increased enrollments in primary schools of children who have benefited from ECCD support; 3) advisable to improve the efficiency of the primary education system, especially for children who would otherwise repeat and/or drop out in the absence of ECCD interventions; and 4) beneficial to families and communities who need the services.

107. Targeting very poor groups with good quality ECCD support and services should have high priority. It is important to recognize that rates of return on investments in ECCD programs for children from middle class or wealthy households do not show rates of return that support arguments for public investment in

ECCD for young children who come from home environments with adequate economic resources. It is also the case that in most countries, well-off families are aware that their children's potential for lifetime success and productivity will be heightened by enhanced ECCD. Based on international experiences as well as the large numbers of middle class children already in preschools in Bangladesh, many more middle and upper income families in Bangladesh can reasonably be expected to invest in ECCD programs as awareness of ECCD grows.

I. KEY STRATEGIES AND OPTIONS

108. The strategy outlined below is based on several premises.

- First, to be successful, ECCD should be a multidisciplinary program incorporating a variety of approaches and strategies. ECCD requires process-oriented approaches that can meet the needs of young children, their families, and concerned community members.
- Second, analysis of present efforts, their costs, and their outcomes is necessary to select approaches for trial on a wider basis and to reform or institute policies as needed.
- Third, in view of likely financial constraints, target groups need to be selected so that ECD services can be directed at those most in need and capable of benefiting.
- Fourth, the delivery of expanded services should be pursued through non-government institutions. There is precedent for this in current non-formal education programs and in delivery of primary education for hard-to-reach children.
- Fifth, the quality and impacts of services delivered in government schools should be assessed and strengthened.

Strategic Choices

Objectives	Immediate Means	Medium Term Means
1. Assess needs, services, costs, and impacts for ECCD.	<ul style="list-style-type: none"> • Map/model needs for ECCD services. • Map ECCD programs and resources. • Conduct a study of ECCD program design i.e., program content, component, strategy, and coverage. This might be done by the Directorate of Women and Children Affairs in collaboration with Child Rights Forum. • Assess current plan/program/policy guide-lines for young children; formulate supportive policies for children's academies with support from Campaign for Popular Education (CAMPE) and Voluntary Health Service Society (VHSS) • Conduct review of ECCD in South Asian Countries to understand programs in different contexts 	
2. Create a favorable environment for promoting ECD activities.	<ul style="list-style-type: none"> • With information in hand, build political will through meetings and workshops with members of parliament and other political leaders. 	<ul style="list-style-type: none"> • Form consultative sub-group on ECCD. • Build alliance with apex body like CAMPE

Continued

Continued from page 31

Objectives	Immediate Means	Medium Term Means
<p>3. Establish institutional set-up and strengthen the capacity of ECD personnel.</p>	<ul style="list-style-type: none"> ◦ Set up a focal point on ECCD at the ministry of women and children affairs ◦ Set up a database on children affairs 	<ul style="list-style-type: none"> ◦ Strengthen capacity of district officers of Shishu Academy (children's academy) ◦ Incorporate ECCD in curriculum of the PTIs and courses conducted by NAPE. ◦ Analyze the outcome and effectiveness of existing programs to identify best practices and cost-effective approaches to training.
<p>4. Provide comprehensive development support to young children and caregivers.</p>	<ul style="list-style-type: none"> ◦ Set up effective coordination among the Ministries of Education, Health and Family Welfare, Social Welfare and Women and Children welfare. ◦ Expand worthwhile programs to a wide scale and evaluate results ◦ Explore additional approaches to support families, e g , information and communications. 	<ul style="list-style-type: none"> ◦ Link ECCD programs with mainstream development programs of different non-government institutions. Link ECCD with adult education programs of the government and non-government institutions.
<p>5. Design supportive legal and regulatory framework.</p>	<ul style="list-style-type: none"> ◦ Assess barriers and incentives to improving quality of ECCD services. ◦ Assess barriers and incentives to replicating or scaling up ECD programs. 	<ul style="list-style-type: none"> ◦ Explore sources both internal and external for funding the ECD program ◦ Increase awareness of rights and resources. ◦ Initiate participatory process of formulating policy. ◦ Set up training facilities, consider qualifications and certifications

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Part Two

**BANGLADESH
NON FORMAL EDUCATION**

**Milia Ali
Ana Maria Jeria**

EXECUTIVE SUMMARY

The Vision for 2020. Bangladesh by 2020 should have achieved a strong system of nonformal basic education for those previously bypassed by the formal system. A variety of nonformal programs will be available that combine literacy with continuing education and life and income-generating skills. Adult literacy rates should have increased to 90 percent, based on increased school attendance of youth and successful literacy programs provided through nonformal education.

The NFE system has several strengths on which it can build. In 1996, the Integrated Non formal Education Program (INFEP) was upgraded and the Directorate of Non formal Education (DNFE) was established to implement four projects totaling \$277 million over five years (1996—2001). More than 34 million learners are targeted in the four projects. In addition, 415 *non-government institutions* currently are active in the education sector, 330 of which are directly implementing NFE programs for the DNFE. The decision by the government to finance the delivery of educational services through non-government institutions is an essential foundation for bringing higher quality programs to national scale, particularly for hard-to-reach populations. The Fifth Five-Year Plan (1997—2002) aims to increase the adult literacy rate to 80 percent by the end of the plan period.

The challenges to achieve the vision of NFE as a fundamental component of the learning society are the following:

- Each NFE program will need to specify its length, curriculum, learning outcomes, and targeted populations in order to articulate and implement its complementary role to primary education and on-the-job training. The current lack of NFE evaluation results makes it difficult to ascertain the learning outcomes of each program, the acquisition and retention of skills by populations served, and, consequently, the precise contribution of NFE in the education and work sectors.
- NFE programs lack consolidation with linkages established between literacy, post literacy and continuing education to the job market. To achieve this viable post literacy models need to be developed and coverage for continuing education must include livelihood and income generation skills. Equivalency programs with a set of standard competencies are also needed to enable learners to make the transition to the formal system or the job market.
- A real government — non-government institution partnership role has yet to be established. Non-government institutions work as contractors, but they are not seriously involved in formulating policy, preparing plans, and designing the national program. The DNFE will need to establish a meaningful and participatory relationship with the non-government institutions community to effectively promote a sustainable learning environment at the community level, including provision of government inputs (such as textbooks) for non-government institution-implemented NFE programs.
- Rapid expansion of the NFE program stretches the capacity of the DNFE, district administration (TLM), and non-government institutions. The first casualty of rapid program expansion is quality from overburdened trainers and supervisors. The mechanisms for program delivery and their contributions to quality should be clearly defined so that expansion plans explicitly include strategies to support them, such as support for training and supervision. For this purpose, a better information base is

needed with emphasis on measuring outcomes of NFE activities and linking these outcomes with the different types of programs.

Steps for the future include the need to:

- Develop an integrated and comprehensive NFE vision and strategy. The success of primary education will cause the focus of NFE programs to shift to new areas, such as continuing education and skills for income generation. These opportunities should be considered and planned for.
- Enhance the institutional capacity of the DNFE and partner institutions by: (a) improving the information base, and (b) strengthening staff training programs to build expertise—specifically strategic planning and management at the central level, and planning, monitoring, and supervision skills at the district level.
- Develop and implement post literacy and continuing education programs to sustain investments in literacy.
- Develop an equivalency program under NFE covering basic literacy through lower secondary education.
- Explore the introduction of cost recovery and resource mobilization schemes to ensure the long term sustainability of the NFE program.

A. DIMENSIONS AND DISTINGUISHING CHARACTERISTICS

1. Non formal education (NFE) is an intentional, systematic form of education that occurs outside the formal school system.¹ It is flexible in terms of curriculum, organization, and management of the program; unrestricted as to time and place; and responsive to the needs of special groups of learners. NFE also encompasses a variety of objectives. For youth, the objective of participation in NFE may be to gain literacy, obtain the equivalence of primary education, or gain access back into the formal school system. For adults the objectives are broader and may include obtaining: (a) communication skills such as reading, writing, arithmetic, listening, speaking, and understanding; (b) empowerment through family education, social education (e.g., marriage laws), and exposure to national topics (e.g., elections) and state resources; (c) survival skills such as health, nutrition, and disaster survival information and techniques; and (d) livelihood and functional skills for gainful employment and increased productivity.

2. In Bangladesh, government involvement in NFE (also called “mass education”) has been primarily aimed at providing literacy and basic functional education for those who have not had the opportunity to go to school or who dropped out. According to government estimates, there are currently about 40 million illiterates between 8 and 35 years old. About 6.3 million of these are working children between the ages of 5 and 14, many of whom are involved in hazardous child labor. Illiteracy and poverty are closely intertwined in Bangladesh: in 1996, the incidence of poverty was 48 percent among illiterates compared to 20 percent for the literate population.

3. In line with the government’s commitment to Education For All by 2000 an Integrated Non formal Education Program (INFEP) was initiated in 1991 to address the needs of the illiterate population outside the formal system. INFEP supported three different types of NFE programs: (1) center-based literacy and survival skills programs implemented by the government and non-government institutions; (2) the Total Literacy Movement (TLM), a “campaign” approach which is managed by the local administration at the district level; and (3) distribution of free primers for philanthropic and voluntary organizations implementing the NFE program using their own or donor resources.

4. In 1996, INFEP was upgraded and the Directorate of Non-Formal Education (DNFE) was established. Currently the DNFE is implementing four projects with a development budget of about \$309.1 million over five years (1996—2001). More than 34 million learners are targeted in all four projects. Three of these projects target adolescents and adults, and one offers basic literacy to hard-to-reach urban children (see Box 2.1). The NFE program includes a massive \$170 million project (NFE 4) which is entirely funded by the government (see Table 2.1). NFE 4 is implemented through the TLM, NFE 3 through the center based; while the other two projects are being implemented through both the center based as well as the TLM approach.

5. The TLM is a mass campaign approach based on a successful model in West Bengal. It is administered and managed by the district administration, and starts with community mobilization and awareness building. This leads to establishment of various local committees to supervise the TLM in the area. Volunteer teachers are then recruited to deliver six-month literacy and three-month post literacy courses. Initially, 80 percent of the attendees attain minimum achievement levels in literacy at course completion, the volunteer receives a reward of Tk. 1,400. But the rules have been changed and teachers now receive Tk 500 every month instead

¹ For the purposes of this discussion, non formal education does not include early childhood education. It does include programs aimed at school-age children who cannot attend primary school (often because they are working) or have dropped out of the normal school system.

of a one time award. Apart from literacy courses, the TLM also provides life-oriented training and survival skills and raises social and political awareness. The TLM has a lower unit cost than the center based model of non formal basic education, in part because of its reliance on volunteers. The unit cost for the TLM is about \$6, while the center based program costs about \$13 per learner.

Table 2.1: Projects in the NFE Sector Under DNFE (1996—2001)

Project	Target Group (age group)	No. of Learners (millions)	Delivery Strategies	Total Allocation (millions US\$)	Source of Funds
NFE 1	15 — 24	2.4	Non-government Institutions	51.1	GOB, IDA, ADB and SDC
		0.5	TLM and others		
NFE 2	15 — 45	6.5	TLM	69.6	GOB, SIDA, NORAD and USAID
		1.8	Non-government Institutions		
NFE 3	Hard to reach, 8-14	0.4	Non-government Institutions	18.5	GOB, DFID, UNICEF, SIDA
NFE 4	15-45	22.9	TLM	169.9	Government
GRAND TOTAL		34.4		309.1	

6. The center-based program is delivered through non-governmental institutions with financial and supervisory support from the DNFE. Out of the 415 non-government institutions involved in the education sector in Bangladesh, about 330 are directly implementing NFE programs for the DNFE. Typically a non-formal center in Bangladesh has 30 learners assembled in a rented space—a school or a house—during hours when the clientele are not engaged in other household or economic activities. The children's program under NFE 3 follows a two-year basic literacy course with curriculum and textbooks developed by the DNFE. Until recently the NFE core curriculum for adults consisted of a nine-month basic literacy course covering life skills such as health, nutrition, hygiene, family planning, civic rights, and literacy and numeracy. In addition, the learners were expected to attend a three-month post literacy course where five NFE centers were merged into one post literacy center with about 150 learners. The Primary and Mass Education Division (PMED) has now decided to change the duration of the NFE program from 12 to 10 months (6 months literacy and 4 months post literacy) and continue the post literacy courses in the same centers with only 30 learners. All teachers and supervisors are trained by a core group of master trainers, and monitoring associates are recruited by the DNFE to monitor the overall program. In addition, the non-government institutions delivering the NFE program have their own internal monitoring system for supervising the literacy centers.

7. Ambitious in scope and coverage, the joint efforts of both the government and the non-government institutions help provide access to literacy for large numbers. A number of non-government institutions are also providing literacy and post literacy education outside the government's program through innovative models suitable to learners' needs in Bangladesh. Proshika (an NGO) has introduced study circles for providing post literacy education to its group members. Grameen Bank has mobile vans and bicycles

carrying audiovisual equipment to learning centers set up in the villages. Women assemble in these centers to watch videos, discuss issues, and borrow reading materials. Grameen and ActionAid are also experimenting with learner-generated materials and activities, wherein learners write stories, songs, poems, and draw comics on newsprint paper for other new literates to read.

8. Beyond literacy, various governmental agencies and non-government institutions are involved in the provision of skill training courses. Functional skill training is offered to credit group members by numerous non-government institutions (BRAC, Proshika, Dhaka Ahsania Mission) on topics such as livestock, improved crop production, or legal rights for women. Private companies offer employment-related skill training such as hairdressing or computer operation. Many government departments (Department of Youth Development, Department of Women's Affairs, Department of Social Services, Department of Agricultural Extension, Fisheries, Livestock, etc.) also offer different types of vocational training.

Box 2.1: Basic Education Program for Hard-to-Reach Urban Children

The Basic Education Program for Hard-to-Reach Urban Children is a first of its kind, \$18 million project. It is the third NFE program run by the GOB and aims to provide basic education for 351 thousand working children in six major cities of Bangladesh by the year 2000 and, consequently, to alleviate exploitative child labor. The program has the full commitment of the government, which covers 10 percent of the costs. Unicef and SIDA are also involved. NFE 3 started in October 1997 with 2,500 non-government institution run learning centers in Dhaka. NFE 3 attempts to provide:

- Basic literacy, numeracy, and life skills in health, nutrition, sanitation, and disease awareness, especially HIV/AIDS.
- Skill development training and job placement.
- Assistance to develop the capacity of the government and non-government institutions to address child labor problems.
- Social mobilization towards the elimination of child labor.

The program is implemented through non-government institutions that have been selected by a transparent system of advertisement. Each non-government institution which organizes the children, community, and the learning centers is required to run a minimum of 15 centers with 30 learners in each center, half of whom must be female. The learners are identified by the non-government institutions through a survey conducted on working children in catchment areas. The children are targeted in the following professions: domestic workers, street children, brick breakers, sex workers, tea stall workers, auto repair, tempo helpers, welders, and leather/tannery workers. To ensure community participation and accountability, every center has a management committee comprising local leaders, parents, non-government institution workers, teachers, employers and a ward commissioner.

The Directorate of Non-Formal Education (DNFE), which falls under the Primary Mass Education Division, has developed relevant curriculum and textbooks, *Kishor Kishori*. The centers also follow a flexible time table so as to ensure attendance by working children. In addition, over 615 supplementary reading materials, developed by non-government institutions such as BRAC and Dhaka Ahsania Mission, are available to learners.

B. STATUS OF KNOWLEDGE

9. Despite significant investments in the NFE subsector, there are still some important gaps in basic information. Little is known at present about the actual learning outcomes of NFE, and the wider effects of literacy training on participants' social and economic wellbeing. In view of the government's decision to expand the TLM to other parts of the country, there is an urgent need to evaluate the costs and benefits of

the TLM as well as its sustainability. More information is also needed on the effectiveness of experiments in post literacy and continuing education, since the issue is closely related to the future direction of the NFE program.

10. Targeting and Coverage. DNFE programs have generally been successful in reaching women and working children, who comprise more than 60 percent of the targeted learners. The completion report for the first phase of NFE 1 indicates that about 58 percent of the target learners were women. In the TLM review in Lalmonirhat 94 percent of the targeted illiterates enrolled in the TLM literacy centers.² Despite these achievements, DNFE and non-government institution run programs have yet to reach some underserved areas of the country: 73 thanas classified as “distressed with food insecurity” are not yet served by DNFE-sponsored programs, and another 61 percent with literacy levels below 30 percent are also not covered.³ Beyond gender and geographic data, however, not enough is known about how well programs have been doing in reaching the very poorest segments of the population.

11. Basic Literacy Completion Rates. Official completion rates for basic literacy programs are extremely high. In NFE 1, about 97 percent of the total illiterates who enrolled in the program reportedly completed the NFE courses. A 1996 review of the TLM found that only 8 percent of the learners dropped out (9 percent of females and 7 percent of males). Unfortunately, these rates have not been independently verified. Rahman (1997), in a study of the DNFE training program in which she surveyed master trainers, supervisors, and teachers, made repeated references to “perturbing” and “persistent” dropout rates.

12. Learning Levels and Retention of Skills. Much more research is needed on learning levels and retention, as the available evidence is mixed. Achievement through the basic literacy course, however, is probably not high enough for learners to maintain their literacy skills over an extended period without additional instruction. The DNFE, in an end-of-course test administered by center teachers supervised by district coordinating officers, found that the overall pass rate on reading, writing, and numeracy was 92 percent (the test was geared to a class 2—3 level of competency). However, a Phase I validation study (DNFE 1997) retested completing learners in 307 out of the 6,075 centers in which basic literacy classes were run. The results of the validation study indicate that only 32.3 percent of the learners in the sample passed the same test. A study of the INFEP program (Malek 1997) found that, two and one-half years after completing the program, only 34.5 percent of the sample learners passed a test of reading, 30.4 percent achieved the passing level in writing, and 26.9 percent achieved the required level of numeracy. The results from a tracer study of NFE1 participants found that 85 percent of participants still write from time to time and 97 percent still read two years after program completion. However, these results were self-reported and were not actually tested or observed.

13. Impact of Literacy Training. This is also an area where much more research needs to be done. Available studies indicate that literacy programs have had a positive impact on the income, attitudes, and behaviors of participants. Literacy program participants have increased their incomes, use of family planning methods, involvement in community development organizations, and take a greater interest in their children's schooling. All studies to date, however, have had methodological shortcomings (see Box 2.2).

14. Post literacy and Continuing Education. Although it is known that current DNFE sponsored post literacy programs have not been particularly effective, not much is known about the effectiveness of other models of post literacy training being experimented with in Bangladesh. Nor is much known regarding the literacy content and requirements of many existing skill development and continuing education courses.

² A joint UNDP/DNFE evaluation study was conducted in May 1996 for the program in the district of Lalmonirhat.

³ Swiss Agency for Development and Cooperation, “*Final Report on Financing Non-Formal Education in the Context of Bangladesh Education Sector*” Dhaka, September 1998.

Box 2.2: Studies on the Impact of Literacy Training

The Dhaka Ahsania Mission (DAM) published in 1997 a study of its literacy program graduates. There was no control group. The study found literacy graduates participating in savings and credit schemes and adding to family income by engaging in income-generation activities (IGA) such as kitchen gardening, poultry farming, and cattle raising. About 50 percent of the graduates had engaged in IGA activities with the help of micro credit. Participants engaged in IGA reported that literacy enabled them to better understand their tasks and manage their businesses more effectively.

The Swiss Agency for Development and Cooperation (SDC) published in 1998 the results of a survey of 122 graduates of the literacy program. There was no control group. The study indicates that literacy has had a positive impact on the income, wages, and employment of the participants. It also found that: (1) literacy programs have been effective in creating an awareness for the benefits of education, (2) most literacy participants advised others to join literacy courses, and (3) women participants took a more active interest in their children's education.

The World Bank tracer study for NFE 1 graduates (1999) was by far the largest study done so far, interviewing approximately 1,600 basic literacy learners from Phase 1 of the project. Again, there was no control group, making it impossible to directly attribute observed changes to literacy training. The study also relied on self-reporting, as opposed to observed behavior. Results of the study show that there were discernible changes after literacy training, particularly in increased economic activity and participation in development programs. After participating in training, a greater percentage of trainees are sending children to school, travelling more frequently, participating in community and support groups, and using birth control.

C. STRENGTHS

15. In recognition of the importance of literacy as part of an overall poverty alleviation strategy, the government is making an all out effort to expand the NFE program. The strengths of the current NFE program are:

- Government commitment — illustrated in part by its willingness to put substantial resources toward the sub-sector.
- Donor interest—currently Unicef, SIDA, NORAD, DFID, ADB, SDC, and the World Bank are funding the DNFE's activities.
- Government-non-government institution partnerships in the education sector—this is the only subsector where almost the entire program is delivered through non-government institutions or with non-government institution involvement.
- Success in reaching the poorer segment of the population, especially women and working children.
- The apparent success in terms of enrollment and completion rates.

D. WEAKNESSES AND CONSTRAINTS

16. Current challenges include the need for:

17. **A Long-Term and Comprehensive Vision for NFE Sector.** A comprehensive vision for non formal education starts with the recognition that all adults operate within a number of roles: as workers, as parents, and as citizens. The goal of education is for people to be empowered to take independent or community action to improve their work, family, and community situations. Such action requires: (a) competency in specific functional skills related to gaining employment, increasing production, changing health practices, exercising legal rights or improving quality of life; (b) sufficient literacy to support the use of such functional skills; and (c) a sense of self-efficacy and empowerment (the belief that one can be successful when taking action).

18. At this stage in the development of the non formal education system, in which basic literacy is being provided in such large scale, it is necessary to start focusing on the provision of educational opportunities for the neoliterates to acquire functional knowledge and livelihood skills in addition to literacy. More attention also needs to be devoted to addressing the issues of quality and sustainability of current investments. An enhanced vision for non formal education in Bangladesh would include opportunities for all three levels: basic literacy, post literacy, and continuing education.⁴ Also needed is a vision of how such a comprehensive system would evolve over time. Clearly over the medium term, the need for large-scale investments in basic literacy should decline, while the need for post literacy and continuing education opportunities will grow. Over the longer term, there will probably be a need for a small core of well-targeted literacy and post literacy programs, and a much wider range of continuing education programs with a strong focus on income generating and livelihood skills. How these shifting needs and priorities will be managed in institutional terms (i.e., what the DNFE will undertake, what will be the role of non-government institutions) is a challenge that the DNFE must address in the near future.

19. **A Better Information Base.** As noted in Section B, above, there are important gaps in basic information about the quality, efficiency, and effectiveness of existing NFE programs. Some of these gaps are gradually being addressed through monitoring and evaluation activities associated with ongoing programs. In other areas, additional research will be needed if a more comprehensive NFE system is to be developed in the future.

20. **Quality Improvements in Basic Literacy Programs.** Although it is difficult to talk about quality and effectiveness in the absence of additional information on actual learning levels and program impact, evaluations and reviews conducted for the DNFE's program indicate that there is a need to revise the curriculum. A materials review workshop organized by INTERACT in 1996 concluded that the curriculum content was "too lengthy and the subjects are too detailed and difficult to grasp." The DNFE is currently modifying the curriculum based on feedback from the non-government institutions and learners.⁵ The teacher training model also uses a cascade approach (core trainers train master trainers, master trainers train supervisors who in turn train the teachers) and the number of tiers leads to system loss at the final level. During a recent (May 1999) review of NFE 1, the DNFE agreed to use only master trainers for training both teachers and supervisors thus getting rid of the separate supervisor training layer. With the rapid expansion of the program the DNFE is also faced with a capacity problem in its training facilities. One way of addressing this problem may be to allow the better performing non-government institutions to train teachers for other non-government institutions and to purchase supplementary reading materials from the larger non-government institutions. This would help relieve DNFE of the pressure of managing an unwieldy program since teacher training and curriculum development activities that are currently DNFE's responsibility would be partially supported by non-government institutions.

21. There also appear to be significant quality differences between different non-government institutions. The problem has been exacerbated by DNFE's contracting policies. Funds provided by the DNFE do not fully cover the costs of the non-government institutions since the unit cost budget per learner does not include the institution's administrative costs. As a result, smaller non-government institutions compromise

⁴ Basic literacy is here defined as an organized and facilitated set of group activities where the focus is literacy skills (to class 2—3 competency) integrated with a range of topics providing general awareness and life skills. The proportion of literacy skill development to functional content is 80/20. Post-literacy is defined as an organized and facilitated set of group activities, where the focus is literacy skills (to class 4—5 competency) integrated with the development of functional knowledge needed for taking action as a worker, parent, and/or citizen. The proportion of literacy skill development to functional knowledge is 50/50. Continuing education is defined as an organized set of group or individual activities, either facilitated or unfacilitated, where the focus is either primary/junior secondary equivalency or functional skill training (at a higher level) wherein learners can use their literacy skills to increase income, improve family welfare, and participate fully as a citizen. The proportion of literacy skills to functional skills is 20/80.

⁵ For youth in alternative primary education, the issue may be the need to make the programs more flexible in terms of timing.

on quality to cover administrative costs. A World Bank supervision mission reviewed the cost per learner in 1997 and found that if overhead costs are added, the cost per learner for BRAC (the largest NGO in Bangladesh) is double of that of ECO, a relatively small NGO, and about 50 percent higher than the actual reimbursed cost. A major reason for the difference in costs is that BRAC uses supplementary reading materials and has tighter supervision. However, the mission also found that, in general, the BRAC program is more effective in terms of learning outcomes, attendance, etc. In accordance with the mission's recommendation, the government agreed to increase the per-learner reimbursement by 10 percent.

22. Effective Post literacy to Guarantee Skills Retention. Learners completing the basic literacy course without a critical level of literacy skill (equivalent to about class 2—3 of primary school) may not be able to retain or improve skills on their own. Neither the government nor the non-government institutions, however, have so far been able to implement an effective and comprehensive post literacy system, designed as a follow-up to basic literacy with a higher functional/livelihood skills content. The current DNFE system of post literacy is not effective in part because until recently 4—5 basic literacy centers were combined into one post literacy center. This usually meant that 120—150 learners had to walk up to 2 kilometers to reach the post literacy center. The post literacy centers are usually run by one teacher, whose role is to provide assistance as needed to individual readers, rather than organized and sequenced instruction. As mentioned above the government has agreed to continue the post literacy classes in the literacy centers for the next phase of the program. A simultaneous decision was also taken to reduce the total course duration from 12 to 10 months. The new model will be closely monitored and a SDC-funded action research is planned to assess the quality of learning under the compressed program.

23. Stronger Links Between Literacy and Continuing Education. Without organized, high-quality follow-up to basic literacy, investments in basic literacy will not have as high returns as are expected. The post literacy program, either through the Gram Shiksha Milon Kendra (GSMK is also considered a continuing education center-cum-library) or through the center-based approach, is not organized well enough in delivery or content to attract learners. Also, an effective basic and post literacy program should help learners achieve close to a class 4—5 level of literacy competency, but learners need additional instruction in order to gain skills for taking action as citizens (to vote, to exercise their legal rights), as workers (to gain employment or increase production) and as parents (to improve their family's health or encourage children to participate and succeed in school). A large number of continuing education opportunities exist in Bangladesh, but it is likely that the lack of literacy content in many skill training programs targeting illiterates ends up limiting their overall impact.

24. In addition, the lack of an educational equivalency system in Bangladesh means that people may gain literacy skills comparable to those who finish primary school or junior secondary (classes 5—8), yet not realize the benefits received by those who get a certificate because: (a) they do not have the background knowledge formal school children acquire; and (b) there is no equivalency test offered. Lack of an equivalent degree can prevent them from obtaining certain types of employment or employment training, even if they have the skills. As part of a comprehensive system of non formal education, Bangladesh should have a stated set of competencies for primary/junior secondary school equivalency and an established non formal course of instruction to help people finishing the post literacy course acquire the background knowledge of environmental studies, social studies, math, and language needed to pass an equivalency test.

25. Improvements in Institutional Capacity. With regard to the DNFE, the planned expansion of the program since 1996 has been ten-fold in terms of the target learners. The DNFE has been able to reach its targets and deliver the basic literacy program, but its capacity is stretched to the maximum. When the DNFE was initially established it was envisaged that its capacity would be strengthened under NFE1 and operations would be gradually scaled up. However, the government decided to go ahead with a very rapid expansion (through the TLM and other donor projects) without a commensurate increase in the number and capacity of the staff. Only 31 monitoring associates are currently monitoring NFE delivery for about 1.3 million

learners, a ratio of 1 monitoring associate to 42 thousand learners. In addition, officials from the center as well as district and thana level officials are supposed to regularly monitor NFE progress. In spite of this, staff resources are spread too thinly, monitoring is sporadic and follow-up is slow. Neither DNFE nor participating non-government institutions currently have the capacity to conduct research for the design, testing, and evaluation of new functional post literacy models and materials, nor do they have the experience to develop an equivalency program without some outside technical assistance.

26. The NFE program relies heavily on the capacity of existing non-government institutions to deliver adult literacy services as well as NFE to working urban children. This is appropriate, but the rapid expansion of the program has overstretched even the delivery capacity of the non-government institutions to manage and supervise an increased number of learning centers. The NFE programs implemented by some large non-government institutions like BRAC and Dhaka Ahsania Mission are doing better than those managed by local smaller non-government institutions with limited resources and fewer well trained personnel. Some well established non-government institutions are using supplementary materials and their own facilities to train teachers. The smaller ones are at a disadvantage since they do not have the capacity to develop teaching materials and training modules.

E. GOVERNMENT POLICY AND PLANS

27. The government has placed high priority on literacy as a poverty alleviation tool, and its targets are extremely ambitious. The Fifth Five-Year Plan (1997—2002) aims to increase the adult literacy rate to 80 percent by the end of the plan period.⁶ Although cooperation with non-government institutions in the delivery of literacy programs will continue at least in the short term, the principal means to achieve this objective will be the area-based TLM, involving significant voluntary contributions.⁷ According to the plan, the entire country will be brought under the TLM at the district level, with literacy/continuing education centers established in each village. A recent government decision to restrict non-government institution involvement in donor-assisted basic literacy programs outside the DNFE's four NFE projects raises further concerns about DNFE's overstretched capacity and its ability to meet the goal of 80% adult literacy by 2002. The government, however, believes that the DNFE has the capacity to cover all NFE basic literacy targets and would like non-government institutions to focus on post literacy and "innovative" NFE programs.

28. The government is also beginning to explore with donors ideas for the development of a more comprehensive NFE system. Such a system would include basic literacy provision, post literacy, and continuing education opportunities for literacy and post literacy program completers as well as formal school dropouts. Here too, a cooperative arrangement with non-government institutions is envisioned. As yet, however, plans in this area are preliminary.

F. FINANCIAL IMPLICATIONS

29. The Primary and Mass Education Division (PMED) has received the topmost priority in the allocation of resources within the education sector, demonstrating government commitment in providing literacy through primary and mass education. Of the total government education expenditure, 48.4 percent was allocated to PME in 1996/97. NFE still makes up a relatively small percentage of the total, but it is growing. The share of NFE in total education expenditure was below 2 percent in 1996/97, increasing to 5 percent in 1997/98. The planned NFE expenditure for 1996/97 and 1997/98 was \$17.9 and \$66.3 million (equivalent to about Tk. 719 million and Tk. 2,666 million respectively) (see Table 2.2). Actual expenditures may be lower. The government expenditure on NFE increased from Tk. 465 million in 1996/97 to Tk. 896 million in 1997/98 (see Table 2.3).

6 Government of Bangladesh, *Fifth Five Year Plan, 1997—2002*, Ministry of Planning, Section 20.9.

7 There have been some recent indications that the government would like to see greater NGO involvement in the provision of post-literacy and continuing education, while gradually phasing out its participation in basic literacy provision in favor of TLM

Table 2.2: Planned Expenditures for NFE (US \$ Million)

	1995 /96	1996 /97	1997 /98	1998 /99	1999 /00	2000 /01	Total
NFE-1	4.642	8.224	9.495	10.463	12.082	6.157	51.1
NFE-2	0.062	7.562	20.808	21.453	12.315	7.451	69.6
NFE-3	0.692	1.965	3.308	5.328	5.174	2.017	18.5
NFE-4	-	0.124	32.715	40.081	54.247	42.732	169.9
Total	5.400	17.880	66.330	77.330	83.820	58.360	309.1

Source: Project Proforma

Table 2.3: Total DNFE Expenditure (Million Taka)

	INFEP	NFE-1	NFE-2	NFE-3	NFE-4	Total
1991/92	20.2					20.2
1992/93	26.9					26.9
1993/94	155.9					155.9
1994/95	346.3					346.3
1995/96	192.2	15.7	2.3			210.2
1996/97	134.1	133.1	197.9	0.2		465.3
1997/98		300.9	451.0	43.9	100.0	895.8

Source: Unpublished DNFE Records

Table 2.4: Planned NFE Expenditure and Financing of NFE Projects (Million Taka)

Project	Target Millions of People	Government		Donors		Total	
		Amount	Percent	Amount	Percent	Amount	Percent
NFE-1	2.95	400	19.5	1653	80.5	2053	100
NFE-2	8.18	1600	57.1	1200	42.9	2800	100
NFE-3	0.35	25	3.4	718	96.6	743	100
NFE-4	22.88	6830	100.0	0	0.0	6830	100
Total	34.36	8855	71.3	3571	28.7	12426	100

Source: DNFE, Annual Report, 1997/98 p. 5

30. The planned expansion of basic literacy provision through the TLM model represents a significant commitment of government resources. The total planned cost of all DNFE implemented projects is Tk. 12,426 million, of which around 55 percent is allocated for NFE 4. NFE 4 is implemented by the local administration using the TLM approach and is financed entirely from the government's own resources. While the TLM has a lower unit cost than the NGO center-based model of non formal basic education,⁸ the direct cost to the government of the center-based model has been lowered by a combination of international donor support and contributions from non-government institutions themselves. International donor contribution in the NFE sub-sector is estimated at 29 percent (see Table 2.4). The contribution of donors in the planned

8 The unit cost for the TLM is about \$5, and the NGO-delivered program costs about \$11 per learner

expenditure is estimated to be 80.5 percent for NFE 1, 42.9 percent for NFE 2, and 96.6 percent for NFE 3. Government contribution to NFE 1 is 20 percent and the rest is being financed by IDA, ADB, and SDC. IDA contribution to NFE 1 is US \$10.5 million. While it is not possible to estimate the total annual education expenditures made by the non-government institutions due to the lack of systematically collected information, some large non-government institutions, like BRAC and Proshika, use surplus resources from their micro-credit programs for funding health and education activities.

31. The development of post literacy and continuing education opportunities (while necessary) will also create competing demands for government resources. It is likely that international donors, private sector, and non-government institution collaboration in this area will help meet some of the needs, at least in the short term. More thought, however, needs to be given to sustainability issues. As mentioned earlier, over the next 20 years, the need for non formal basic literacy training is likely to diminish, whereas the need for post literacy and continuing education opportunities is likely to grow. How this growth is to be financed is still to be determined. One option worth exploring may be partial cost-recovery from beneficiaries. To date, there have been no costs to beneficiaries associated with basic literacy training, other than time. While this policy is appropriate given the public-good nature of literacy training and the inherent targeting to the poor, it may not be appropriate at the post literacy and continuing education levels. In fact, many of the continuing education training opportunities currently available in Bangladesh through non-government institutions do involve at least a small fee or other type of in-kind contribution, though whether such contributions are an impediment to the poorest segments of the population has not been sufficiently researched.

G. RECOMMENDATIONS

32. **Develop an integrated and comprehensive NFE vision and strategy.** The current NFE system lacks an overall vision and direction. A coherent system in which learners achieve literacy at sustainable competency levels and also acquire skills that provide expanded opportunities for employment and continuing education is needed. The government's NFE program has expanded rapidly. This demonstrates sincerity and commitment to the goal of 'education for all,' but not enough attention has been devoted to the future purpose and mission of the program. The success of the primary education program will probably cause NFE to shift to new areas such as teaching occupational skills for gainful employment, etc. The partners in NFE need to develop a long term integrated vision and strategy for the sub-sector.

33. Enhance the capacity of the DNFE and partner institutions to provide planning, monitoring, evaluation, and technical support to the NFE program. Particular emphasis needs to be put on improving the existing information base. Current efforts to verify systemic information are commendable, and should continue. Without timely, accurate data, it will prove exceedingly difficult to identify and correct problems with existing NFE programs, let alone design new ones. Assessments of DNFE's institutional capacity are being conducted under ongoing projects, and concrete measures (recruitment and training of staff, building technical expertise, etc.) are needed before the peak of program delivery in 2000/2001. Currently most of the DNFE staff training programs focus on developing administrative rather than management skills. At the central level, strategic planning and management skills need to be developed, while at the district level, the capacity for planning, supervision, and monitoring needs to be strengthened. A formal mechanism for increasing the collaboration between all stakeholders (government, non-government institutions, local government bodies) also needs to be developed. There are ongoing discussions to set up a mechanism which could facilitate the development of a professional base of expertise to support and assist other agencies involved in NFE activities, as well as provide inputs to policies and plans, initiate reforms, and provide technical guidance for maintaining quality standards based on predetermined performance criteria. The idea of setting up an autonomous and independent council for accrediting non-government institutions and controlling the overall quality of the NFE program needs to be explored.

34. Develop and implement post literacy and continuing education programs to ensure that investments made in literacy are sustained. Even with improvements in basic literacy provision, education experts agree

that achievement through a basic literacy course is not enough for learners to maintain their literacy skills over an extended period of time without additional instruction. Every literacy system needs an effective post literacy and continuing education system that provides follow-on literacy services to help learners retain, improve, and use basic literacy skills and to acquire deeper functional knowledge and livelihood skills. The government and the Bank are currently involved in the preparation of a post literacy and continuing education project. Given the fact that suitable post literacy/continuing education models have yet to be identified and tested, substantial pilot testing would need to be built into the project. There is also a need to strengthen the professional capacity of the DNFE if it is to assume the additional task of implementing a full fledged post literacy and continuing education project in conjunction with non-government institutions .

35. Develop an equivalency program under NFE covering the continuum from basic literacy to junior secondary school education. Such a system would allow working children and primary school dropouts to make the transition back into the formal system, and would lower discrimination against adults who may have acquired literacy and job-skills informally but lack a school diploma. The program would include the establishment of a stated set of competencies for primary/junior secondary school equivalency, and the design of a non formal course of instruction to help those finishing a post literacy course acquire the additional background knowledge of math, language, history, environmental studies and social studies needed to pass an equivalency test.

36. Explore the introduction of cost recovery and resource mobilization schemes to ensure long term sustainability of the NFE program. Cost recovery may be feasible for continuing education and skill development programs, but it may not be possible in the case of literacy and post literacy. The cash contribution that beneficiaries might be able to make would be insignificant and would necessitate cumbersome logistics and high administrative costs. Communities, however, can make a significant contribution by providing accommodation for NFE activities and items such as sitting mats, etc. In the long term there may be a need to introduce schemes for non-cash community contributions, e.g., teachers, libraries, etc., and also for mobilizing resources through local government bodies. More research also needs to be done regarding the effect of even low-levels of fees and/or contributions on the participation of the poorest segments of the population.

H. VISION AND STRATEGY

37. The Vision for 2020. Bangladesh by 2020 should have achieved a strong system of non formal basic education for those previously bypassed by the formal system. National capacity will have been consolidated and strengthened to develop and manage non formal programs. Non-government institutions will continue to be the main vehicle for delivery of non formal programs. The government—non-government institution collaboration will have become strong and fruitful. The effectiveness of the various programs will be evaluated and the results used to provide information about best practices. As a result, a variety of effective non-formal programs would be available that combine literacy with continuing education and life and income-generating skills. Adult literacy rates should have increased to 90 percent, based on increased school attendance of youth and successful literacy programs provided through non-formal education. The following matrix summarizes the objectives and means in a strategy for improvement of NFE.

Table 2.5: Strategy for NFE

Objectives	Means
<p>1. Improve the Quality and Effectiveness of Current NFE Programs.</p>	<ol style="list-style-type: none"> 1. Establish a better information base with emphasis on measuring the outcomes of NFE activities; feedback results on effectiveness and link them with different types of programs and practices 2. Simplify teaching materials. 3. Improve teacher training, possibly by having better performing non-government institutions train teachers for other non-government institutions.
<p>2. Consolidate and Extend Literacy Gains through Follow-up Activities.</p>	<ol style="list-style-type: none"> 1. Develop viable models for post literacy training. 2. Extend coverage in continuing education and broaden the content to include income-generation skills. 3. Develop equivalency programs to enable (a) youth to make the transition back to school and (b) adults to receive equivalency certification for achievements. <ul style="list-style-type: none"> ◦ Establish a standard set of competencies for primary and lower secondary. ◦ Design non formal courses needed for equivalency especially in mathematics and language.
<p>3. Enhance Institutional Capacity.</p>	<ol style="list-style-type: none"> 1. Develop a long term vision of how a comprehensive system of basic literacy, post literacy and continuing education should evolve over time. 2. Devise mechanisms for more productive collaboration among stakeholders, especially better collaboration between government and non-government institutions. 3. Build implementation capacity of the weaker non-government institutions. 4. Build government staff capacities both in numbers (especially for monitors at district levels) and in expertise <ul style="list-style-type: none"> ◦ At the center — capacities for research on the effectiveness of current programs and new models, strategic planning and management. ◦ At district levels — planning, monitoring and supervision
<p>4. Ensure Long-Term Financial Sustainability.</p>	<ol style="list-style-type: none"> 1. In the short term mobilize resources for classrooms and facilities. 2. In the medium term, organize schemes for greater non-cash contributions including libraries, teachers. 3. Study the effects of cost-recovery on participation as a prelude to modest cash contributions in the long term.

Part Three

**BANGLADESH
SECONDARY AND HIGHER SECONDARY EDUCATION**

**Scherezad M. Latif
Richard Johanson**

EXECUTIVE SUMMARY

The Vision for 2020. Secondary education, an extension of basic education, is an important complement to social and productivity objectives. Bangladesh needs to reorient and expand its secondary education system. By 2020, lower secondary education (classes 6—8) will be compulsory and will provide the majority of students their terminal education before entry into the labor force. Secondary (classes 9—10) and upper secondary (classes 11—12) will be merged into one structure and will accommodate about one-half and one-third of the age group, respectively. This implies a major expansion of enrollments over the coming two decades. Enrollments at each level of secondary education will double, requiring a total 6—7 million additional places and 120,000 additional teachers. Costs per student must be kept low through maintaining large class sizes. To compensate teachers will be specifically trained for dealing with large class sizes and ample, well designed textbooks and teaching materials will be available. The secondary system will be reoriented to provide more relevant and practical preparation for the majority of students for whom it is terminal education. The Secondary School Certificate (Class 10, SSC) will have been replaced by school-based evaluation and the content of the Higher Secondary Certificate (Class 12, HSC) will have been reformed to stress higher level skills. Unfair practices will have been eliminated. Gender parity will have been fully achieved in the student population and improved in the teacher force.

Progress at the secondary level over the next two decades will build on strengths and achievements of the secondary system. In terms of educational background virtually all the teachers in the system have degrees at present, and half have master's degrees although most lack pedagogical credentials. The supply of reasonably educated teachers should support the expansion of the system. Textbooks are readily available for purchase by parents and provide an excellent basis for diversification of titles and revision of content over the next decade. Households on average pay about half to two-thirds the total cost per secondary student, a substantial contribution of private resources to secondary education. Secondary school management is mainly non-governmental and tends to have more leeway to hire staff in response to increasing enrollments. Between 1990 and 1996 enrollments doubled to over 6 million students. A girls' scholarship program supported by external assistance has increased girls' enrollments from 35 percent to about half of total enrollments at the lower secondary level, and from 31 to 43 percent in classes 9—10. Expanded female enrollments promise substantial benefits in terms of lower fertility rates and better health and nutrition of the next generation.

However, Bangladesh must eliminate fundamental distortions in the secondary school system and face the following challenges:

- **Reorienting content.** At present the main function of secondary education is to ration access to higher levels of the system, having no independent purpose of its own. Incentives to pass through this funnel are tremendous because of chances post-secondary education offers for higher incomes. However, fewer than one in ten entrants manages to complete the system and proceed to higher education; the other nine leave the secondary system unable to advance in the academic system and ill prepared for the lives they face—mainly in the informal sector. Moreover, those that do continue their studies have not been well prepared in terms of thinking and analytical skills. The content of secondary education, as reinforced by the terminal HSC examination, emphasizes rote memorization of factual information. This content is a poor use of public investment in education.

- **Reducing inequities.** Bangladesh fails to provide equal access to quality secondary education and outcomes. Access is uneven geographically because schools have been established where parents can afford them, not where the most needy children live. Among existing schools major disparities exist in provision of inputs, such as allocation of trained teachers, class sizes and facilities. Poorer students cannot afford the costs necessary for success in secondary education. Private tutoring is common throughout secondary education to prepare for the final examinations. Fees for out-of-class tutoring — often by the same teachers — costs private households substantially more than public tuition fees. Such payments discriminate against the poor and payments for private tuition are a bad use of the private willingness to invest. Private tuition undermines the equity goals of public expenditure on secondary education.
- **Raising Incentives for Quality.** Poor quality is the product of multiple factors such as large class sizes (which burgeoned from an average of 22 to 56 students in the 1990s), inadequately trained teachers, lack of self-teaching materials, curricula with excessive objectives and unteachable textbooks. However, perhaps the most basic causes are lack of accountability and perverse incentives in the system. Government subventions are not linked to performance. That, plus the lack of effective academic supervision at the local level, means that the schools are not held accountable for results. Incentives for quality are largely absent within the system. School owners are driven by the need to maximize fee income and teachers seek to maximize the out-of-school income. These distorted incentives need to be rationalized.

Bangladesh must take several actions to address the issues:

- The purpose and content of secondary education need to be reoriented to preparation for life¹ and problem solving, not exclusively vertical mobility. Matching curricula and instruction to local needs would vastly improve the returns to both public and private educational investments. This reform should start with a review of the generic abilities required by employers in both formal and informal sectors, e.g., problem solving, ability to follow instructions and learn on the job, and oral and written communication. Textbooks should be revised accordingly.
- Reform of the examination system is also essential for improving secondary education because the examination system drives teaching at the secondary level. Greater relevance in teaching content cannot be achieved without such a reform. The SSC should be replaced by a certificate issued by individual schools, and the content of the HSC should be rebalanced towards higher order skills.
- An incentive-based strategy for quality improvement should be devised. Subsidies should be linked to performance measures. Standards for good schools and teachers should be developed and disseminated. School improvement plans should be developed and financed, and teachers should be encouraged to propose innovations.
- Compensatory programs should be expanded for important target groups, particularly the poor and girls. The programs should address mainly the financial reasons for nonattendance.
- Serious planning should be done for the complex logistical changes involved in transforming the system from a 5+3+2+2 structure to an integrated 8+4 structure.
- Spending on secondary education should be rationalized. For public subsidies, this means (a) equalizing public allocations per student through normative financing; (b) linking payments to performance by reformulating the subsidy system; (c) better spatial planning of new schools; and, after the reforms, (d) more spending per student, especially at what is now lower secondary level. For private financing it means redirecting payments away from private tuition toward direct expenditures

1 Providing more realistic secondary education directed at life skills and problem solving does not mean vocationalizing secondary education. Vocational education as part of secondary education has proved costly and often ineffective in other countries. Instead, investments in skill training should be deferred until completion of schooling when such training can be adjusted better to market demands

that build school quality. Private tuition should be abolished, or institutionalized and controlled so as not to discriminate against poorer students.

- Techniques must be identified and disseminated to achieve better quality of learning within the inevitable context of large class sizes, as has been done by other high density countries, such as China and Korea.
- The system should be better managed. Public—private partnerships are difficult to manage. However, it is clear that while preserving the non-governmental character of the system, better management support (as opposed to control) should be provided at lower levels of the system, e.g , continuous in-service coaching and support for teachers by head teachers and new thana education officers. Special concentration should be made on training secondary school headmasters in view of the pivotal role they play in quality of school outcomes

The Secondary Education Sector Improvement Project recently approved by the ADB promises to make an excellent and comprehensive start in solving the issues.

A. DIMENSIONS AND SPECIAL CHARACTERISTICS

1. **Structure.** Second level education is divided formally into two levels: secondary education (grades VI-X) and higher secondary or intermediate level (Grades XI-XII), provided in colleges. The secondary level is further sub-divided into two sub-levels: lower secondary (grades VI-VIII) and secondary (grades IX-X).² As in other Islamic countries, the formal secondary system is paralleled by an Islamic system of education, normally referred to collectively as Madrasas. In the parallel Islamic system of Madrasa schools in Bangladesh the five year 'Dhakil' level corresponds to secondary education and the two year 'Amil' level parallels higher secondary.

2. Various types of schools span these levels (Table 3.1). Secondary schools typically include lower secondary level. Lower secondary schools may include grades IX and X if they are seeking government recognition. Two thirds of all higher secondary education is provided by intermediate sections within degree colleges.

Table 3.1: Enrollments at Second Level by Cycle and Type of School, 1997

Level and Type of School	Ownership	No. Students (000s)	Percent Sub-Total	No. Females (000s)	Percent Female
<i>Lower Secondary (VI-VIII) in:</i>		5013.7	100.0	2689.9	53.7
Junior Secondary Schools	Non-govt.	632.2	12.6	341.0	53.9
Non-Govt. Secondary Schools	Non-govt.	3623.5	72.3	2101.8	58.0
Govt. Secondary Schools	Govt.	157.6	3.1	74.0	47.0
Madrasah-Dakhil	Govt.	600.4	12.0	173.1	28.8
Sub-total: Non-Government		(4255.7)	(84.9)		
<i>Secondary (IX-X) in:</i>		1950.7	100.0	802.9	41.2
Non-Govt. Secondary Schools	Non-govt.	1622.4	83.2	705.9	43.5
Govt. Secondary Schools	Govt.	88.3	4.5	40.6	46.0
Madrasah-Dakhil	Govt.	240.0	12.3	56.2	23.6
Sub-total: Non-Government		(1622.4)	(83.2)		
<i>Higher Secondary (XI-XII) in:</i>		992.5	100.0	341.3	34.4
Non-Govt. Intermediate Colleges	Non-govt.	249.4	25.1	108.0	43.4
Government Intermediate Colleges	Govt.	6.5	0.7	1.8	27.7
Non-Govt. Degree Colleges	Non-govt.	367.3	37.0	118.7	32.3
Government Degree Colleges	Non-govt.	307.4	31.0	106.5	34.6
Madrasah-Alim	Non-govt.	61.9	6.2	6.3	10.2
Sub-total: Non-Government		(616.7)	(62.1)		
<i>Total Second Level</i>		7955.9	-	3834.1	48.2
Sub-total: Non-Government		(6494.8)	(81.6)		

Source: Calculated from BANBEIS, Bangladesh Educational Statistics 1997, November 1998

3. **Enrollments.** In 1997 44 percent of the age group 11-13 was enrolled in lower secondary education, 27 percent of the age group 14-15 was enrolled in secondary and 16 percent of the age group 16-17 was enrolled in higher secondary (Table 3.2).

² The structure of secondary education is similar to that found in most Asian countries and in some states of India. In Asia the most common structure is 5-3-3 for a total of 11 years of education. In India most states have a 5-4-2 structure.

Table 3.2 : Overview of Secondary Education, 1997

Level	Grades	Students (000s)	Percent Non-Govt.	Percent Female	Percent Gross Enrollment Ratio
Lower Secondary	VI-VIII	5,014	85	54	44.0
Secondary	IX-X	1,951	83	41	27.4
Higher Secondary	XI-XII	993	62	34	16.1

Source BANBEIS, 1998, and World Bank population statistics

4. Private Ownership and Management. Bangladesh has an extraordinarily high percentage of students enrolled in non-government schools, including 85 percent at lower secondary level, 83 percent at secondary level, and 62 percent at higher secondary

(Table 3.2). Recognized non-government schools receive public subsidies of 80 percent of base teacher salaries, house rent and medical allowances plus a small grant for miscellaneous expenses. Still, subsidized non-government schools must raise about half to two-thirds of their total expenditures from private sources. Tuition and fee payments by households contribute about 85 percent of the private income. School fees typically include tuition, admission fee, examination fee, session charge, textbook fee, stationery fee, sports fee, library charge if there is one, poor fund, union fee, magazine fee, festival charge, welfare fund and girl guide fee.

5. Female Enrollment. Bangladesh enrolls a relatively high proportion of females. This is particularly true at lower secondary level, where female enrollment apparently makes up more than half of the total, including up to 58 percent in non-government secondary schools. At secondary level the proportion of female enrollment drops off to 41 percent of the total and is only 34 percent at higher secondary level (where recent increases have not yet worked their way through the system).

6. Streams. Students are divided into various "streams" or specializations in secondary education. The choices in grades IX-X are science, social science and — more recently — vocational. In 1997, 37 percent of the secondary students were enrolled in the science stream, including 47 percent of the boys and 26 percent of the girls. At the upper secondary level students must choose between sciences, humanities, and commerce. In 1997, 21 percent of the candidates for HSC were in the science stream, more than 50 percent were in humanities and the rest were in commerce.³ Most intermediate colleges offer at least two of the three modalities.

7. Examinations. The first public examination, for the Secondary School Certificate (SSC), is given at the end of Grade X. The SSC is a pre-requisite for admission to higher secondary (Grades XI-XII). At the end of grade XII a further public examination takes place for the Higher Secondary Certificate (HSC). The HSC pass is mandatory for admission to degree programs as well as appointment to secretarial positions in government services.⁴ The society at large gives extraordinary attention to the SSC and especially the HSC examination. These examinations determine possibilities for further education as well as employment. They sometimes also influence marriage arrangements, access to credit and possibility of jobs abroad. Many Bangladeshis go to work in Malaysia and the Middle East. Arrangements to go abroad and salary levels tend to be based on the school certificate obtained. To pass the examination the student must write papers on eleven subjects. Students devote substantial time to preparation for these papers. They also take special tutoring and coaching after school hours and during holidays. After completing grade 10 students spend close to six months in preparation for the SSC. The examinations themselves take about one month to complete. Then students spend about four months waiting for the results. In short, students dedicate a whole extra calendar year to the examination.

³ BANBEIS, 1998, Section I, Table 7; Section X, Table 23.

⁴ Government of the People's Republic of Bangladesh, *et al.*, *Secondary Education in Bangladesh: A Subsector Study*, December 1992, p. 9.

8. **Graduates.** No recent studies have been done to trace the destinations of students who complete secondary education and receive the final certification (HSC). However, a survey done on HSC graduates in 1993 found that about seven of ten graduates entered higher education and about 30 percent entered the labor market. Of the thirty percent entering the labor market, about one third of those were wage employed, one third were self-employed and a third were unemployed (Table 3.3).

Table 3.3 : Destinations of 1993 HSC Graduates

Destination	No.	Percent
Higher Education	256	68.3
Wage Employed	35	9.3
Self-Employed	38	10.1
Unemployed	46	12.3

Source AED, 1998g, pp 1-2

9. Access to some form of higher education is relatively easy for most HSC graduates. Reasons given for not continuing to higher education are more likely to be financial than absence of places.⁵

10. **Management and Administration.** The administration of secondary education is highly centralized. The Directorate of Secondary and Higher Education (DSHE) in the Ministry of Education is responsible for implementing government policy in secondary education. It is responsible for control of 13,800 secondary schools (including junior secondary), 900 intermediate colleges and intermediate sections in almost 800 degree colleges.

11. The National Curriculum and Textbook Board (NCTB), as the title implies, is responsible for developing curricula and publishing and distributing standard textbooks. It is charged with evaluating the effectiveness of curricula, syllabi and textbooks, supervising the introduction of changes in curricula, arranging for development of textbook manuscripts, approving them, and publication, distribution and sale of the books. The NCTB produces some 55 million primary textbooks and 26 million secondary texts. The NCTB is autonomous and supports itself financially through the sale of textbooks and royalties from publishers. From 1993-95 the NCTB oversaw a revision of secondary school curricula that resulted in the adoption of new teaching programs and new textbooks by 1997.

12. Another key national structure is the network of Boards of Intermediate and Secondary Education (BISEs). Five geographically-based Boards exist as well as a separate Madrasah BISE. BISEs are responsible for two important functions in secondary education: (1) accreditation of non-government secondary institutions; and (2) administration of the SSC and HSC examinations. In terms of examinations, the BISEs oversee the preparation, printing, distribution and administration of examination papers through thana centers. Subsequent to testing the BISEs organize the marking of papers, process the results and produce the certificates. BISEs are autonomous, self-regulating and are completely self-financed from fee income.

13. Below the central level Bangladesh is divided into five divisions with 64 districts and 530 thanas. DHSE is divided into eight zones. Each zone has a Deputy Director assisted by two to four inspectors. District offices are headed by a District Education Officer (DEO). There are no permanent staff to deal with secondary education at the thana levels. The local offices process routine information and inspect schools, but virtually all decisions are made in Dhaka.

14. Three levels of supervision exist within the system: (1) BISEs are responsible for accreditation of non-government secondary schools. However, because of lack of inspection capacity, they delegate the work to zonal inspectors and DEOs; (2) The Directorate of Inspection and Audit of the MOE undertakes periodic qualitative and quantitative evaluation of non-government schools. It has 24 inspectors and assistant inspectors to monitor 21,000 institutions; (3) Each zone has up to four inspectors who visit at least 10-15 schools per month.

5 AED, 1998g, pp 2-3

15. Bangladesh also has an institutionalized mechanism for community participation in secondary education. School management committees (SMCs) are required for all recognized non-government secondary schools as are governing bodies (GBs) for all intermediate colleges. These bodies are responsible for mobilizing resources, approving the budget, controlling expenditures, and appointing and disciplining staff.

16. **Donor Assistance.** Secondary education in Bangladesh has benefited from several external assistance projects. The Asian Development Bank has been the main supporter. It financed a Secondary Science Education Sector Project (SSESP) between 1985-90 that established science development centers for in-service teacher training. The ADB's Secondary Education Development Project (SEDP) supported curriculum reform, teacher training and instructional materials from 1994-1999. The Higher Secondary Education Project (HSEP) provided support for curriculum and textbook development, teacher training and management improvement for intermediate colleges between 1992-1998. Both the ADB and the World Bank have been financing a Female Stipend Program (FSP) to increase participation of girls in secondary education. Under the project the schools and female students share a stipend of \$16 per year on the basis of three criteria: minimum of 75 percent attendance; meeting standards on internal examinations and abstinence from marriage. Approximately three million females have received the stipends in grades VI-X. The European Union is financing project PROMOTE, the Program for Motivation, Training and Employment of Female Teachers. The ADB recently approved a new project in secondary education with a loan of US\$60 million that seeks improvement focused on sub-sector management, examination/assessments, textbooks and local supervision.

B. STATUS OF KNOWLEDGE OF THE SUB-SECTOR

17. Three surveys were conducted in the 1990s that touched in whole or part on secondary education. The government of Bangladesh, in collaboration with UNDP, Unesco and the World Bank, carried out two studies in 1992 and 1994, respectively. The 1992 study was entitled, **Secondary Education in Bangladesh: A Sub-Sector Study** and the one issued in June 1994 was the **Post-Primary Education Sector Strategy Review**. In 1998 the Asian Development Bank commissioned a review of secondary education focusing on finance, examinations, curricula, teacher training and management.⁶ BANBEIS produces valuable statistical data regularly on secondary education, but works under important limitations. BANBEIS has no staff below the central level and little power to enforce the collection of data at local levels. Some of the data they collect are linked with financial subsidies and may be subject to bias. Outputs of information are delayed because of the time it takes to collect and compile the statistics. Still, under the circumstances BANBEIS does a creditable job in compiling statistics on post primary education. Some information has also been produced under the FSP, including studies on enrollment and quality of project schools.

18. The main gap in knowledge about the system relates to documentation about differences in quality and outcomes by geographical location and type of school, and the factors responsible for those differences. Apparently, differences in school quality could be assessed using examination results as a proxy. No new data collection would be necessary as the basic information already exists in the BISE main computer.⁷ Beyond this, little information exists on actual learning achievements. Also, little is known about (a) class contact hours and "time on task" per school day and year, and (b) the effectiveness of various syllabi and textbooks.

C. STRENGTHS OF THE SECONDARY SYSTEM

19. **Expansion of Intake, Enrollments and Access.** The proportion of graduates of primary education accommodated in secondary education has been rising steadily despite the substantially expended outputs

6 The study was undertaken by the Academy for Educational Development (USA) and Pathmark Associates (Dhaka). See the bibliography for the series of documents produced by this study.

7 A.E.D., 1998g, pp 14-15.

from primary education. Grade VI enrollment more than doubled between 1991 and 1997, from 710,000 to 1,732,000. Within that increase the enrollment of girls almost tripled from 276,000 to about 830,000. The transition rate⁸ climbed from 64 percent to 79 percent over the period. The rate of increase was especially dramatic for girls, growing from about 57 percent to over 80 percent. The transition rate for boys increased from 65 percent to 79 percent over the period.

20. Strong incentives on the part of both providers and consumers (parents) have led to strong overall growth in enrollments in secondary education in the 1990s. Providers had incentives to establish new schools. Although they cannot take profits from operation of state-subsidized non-government schools, private school owners enjoy perquisites and steady employment. Parents had incentives to send their children to

secondary schools in increasing numbers — as evidenced in the strong rates of return to secondary and especially higher education. Consequently, over the decade total enrollments in secondary education more than doubled from 3.0 million in 1990 to 6.1 million in 1997. Enrollments in higher secondary increased by 64 percent from 568,000 students in 1990 to 931,000 in 1997. This growth translated into vastly expanded enrollment ratios in lower and secondary education.

21. **Gender Parity In Enrollments.** In the 1990s female enrollment as a percentage of the total enrollment at secondary level increased from 34 percent in 1990 to 48 percent in 1997, and from 28 percent to 36 percent in higher secondary education over the same period. Table 3.1 even showed that female enrollment — if correct — actually exceeded enrollment of boys at the lower secondary level. One of the reasons for these major increases was the government's policy, initiated in 1992, to give free tuition to girls in classes VI to VIII. This was followed by external donor assistance for female secondary school stipends. This program has contributed to growth in gender parity at 1.8 percent per year over the past three years.

22. **Private school management.** At present, 9 out of 10 secondary education institutions belong to the private sector. They are, according to the law, not-for-profit institutions with a school management committee overseeing the administration of the school. Government representatives are in the school management committees. This type of private management has proven to be more flexible than management by the Directorate of Secondary Education. For example, schools can hire their own teachers without going through a cumbersome central bureaucratic process. It is also more responsive to the requirements of each school and each community, to the characteristics of the students and the need of the communities. There is parental participation in the management of the schools. There is a sense of belonging to the community where the school is located and most teachers live close to schools where they work facilitating their attendance.

23. One significant advantage of the private management system is the reduced cost to government. The cost to the government of one student year in a non-government school is estimated to be only about 40-45 percent of that in a government secondary school. The fact that non-government institutions enroll about 95 percent of the students at secondary level, and government pays for only between 50-70 percent of total costs, means that public funds can cover more students than if the government financed 100 percent of the costs.

24. **Private resource mobilization.** All parents pay tuition and other costs associated with non-government secondary and higher secondary schooling. Parents finance about 60 percent of the costs of education

Table 3.4: Enrollment Ratios by Level (Percent of age group enrolled)

Level	Grades	1991	1995	1997
Lower Secondary	VI-VIII	32	38	44
Secondary	IX-X	21	25	27
Higher Secondary	XI-XII	20	19	16

Source BANBEIS and World Bank population estimates

8 Transition rates are notoriously difficult to pinpoint with accuracy. Other estimates derived from BANBEIS data put the transition rate at about 55 percent at the beginning of the 1990s, including 45 percent for girls, increasing to 75 percent by 1997. Despite differences with the statistics in the above table, the two sets of figures agree in the dramatic increase (by about 15-20 percentage points) in the overall transition rate and the even greater increase for girls (by 25-30 percentage points).

directly.⁹ According to the 1996 household survey, parental outlays averaged 500 Tk. per primary school child, 1500 Tk. per secondary school child, and 2400 Tk. per higher secondary school child.¹⁰ This is much higher than the burden borne by parents in most developing countries including the Philippines and Korea, where private financing is considered to be high. There are several reasons for these high parental contributions. Bangladesh has a tradition of private contributions to education. Before independence even most primary schools were non-government as well as secondary schools. As a result the schools that exist for the most part have been organized by the parents. After independence the government nationalized all primary schools, and started to pay all salaries for all teachers, but secondary schools continued to be supported by the community organizations. Another reason is the overwhelming motivation of guardians to secure a better future for their wards.

25. Key Inputs: Textbooks. The NCTB revised textbooks for grades VI to X in 1995. Textbooks generally are available for purchase in the open market at reasonable costs. All students attending secondary schools must buy the books. Most have the set of textbooks that is required by the syllabus.¹¹

26. Key Input: Potential supply of well qualified¹² teachers. Currently, university graduates in Bangladesh have high unemployment rates. On average, a B.A. degree holder waits 27 months upon graduation, for a job.¹³ Consequently, many of these graduates are pleased to take teaching jobs and the number of applicants for teaching jobs far exceeds available vacancies. The minimum entry for teaching in secondary school is a bachelor degree. All applicants in both rural and urban areas hold university degrees (usually pass — 2 year degrees — B.A. and B.Ed.).¹⁴ More than half of the secondary school teachers currently in schools hold a master's degree. Continuous education is also a tradition among Bangladeshi teachers. A large proportion of secondary school teachers are currently enrolled in courses leading to higher degrees.

27. Output Measures. The SSC and HSC examinations, imperfect as they are, do provide a proxy measure for quality of educational outcomes. The SSC and HSC are nationwide, standardized and accepted by tradition. They establish a national standard for selecting students in secondary and higher secondary education. It is commonly acknowledged that the results are generally reliable — in the sense that the most meritorious students tend to pass the tests. The examinations are administered for the most part effectively, including well-designed computation of results. These examinations drive the secondary school system, give students an incentive to study and teachers an incentive to teach.¹⁵ Moreover, the examinations help teachers to decide what to teach and to achieve higher standards than would be the case without them.

9 Cost details are included in Volume I, Education Finance Private tuition paid by most parents represents half of the cost incurred by parents

10 Costs to parents include direct costs that is contribution to running the schools and other costs. In junior secondary education, parents pay on average 154 Tk for admission, 237 Tk for uniforms, 385 Tk. for books, 87Tk for exam fees, 265 Tk for tuition, 180 Tk. for transportation and 765 Tk. for private tutors.

11 A UNDP survey in 1992 found that only 10 percent of the students did not have a full set of textbooks Government of the People's Republic of Bangladesh, *et. al.*, (1992), p.32

12 The definition of what constitutes a qualified teacher needs to be carefully clarified. It is often said in the Ministry of Education documents and statements made by donors in Bangladesh that if the prospective teacher does not have a B.Ed, but only a B.A, then the prospective teacher is unqualified. The reality is that a B.A degree is often a higher level degree, particularly if it is in one of the subjects taught in the secondary schools. Salaries offered to B.A graduates are often much higher than salaries offered to B.Ed. graduates. Moreover, both B.A. graduates and B.Ed. graduates have little or no teaching experience when they join the teaching force

13 HES Data

14 Problems exist in filling teaching positions in some areas: most teachers prefer to work in urban or semi-urban areas Rural schools have the most difficulty hiring qualified teachers because of the more difficult living conditions

15 Standardized examinations are also a weakness of the system, as explained below.

D. WEAKNESSES OF SECONDARY EDUCATION

28. The system of secondary education is analyzed below in terms of three criteria: external efficiency, effectiveness and internal efficiency.

External Efficiency

29. The two main problems with secondary education in terms of external efficiency (relationship of outputs to economic and social needs) are that it (1) fails to educate students for the lives they are likely to lead, and (2) does not provide equal access to quality and therefore outcomes.

30. **Relevance of Content.** Secondary education mainly serves as a screening device for entry into higher education. The opening at the end of the funnel is narrow. Only a fraction of the students who enter secondary education survive to grade XII and pass the HSC examination, a requirement for entry into higher education. In 1997 243,000 students received passing marks in the HSC examination, equivalent to about 8 percent of the population age 17. This is considered small for a country 120 million (see section on 'Internal Efficiency' below for more information).

31. The issue is not the relatively small output from the HSC examination causing a shortage of skills in the job market or a shortage of entrants into higher education. Clearly, there is a glut of graduates with that qualification.¹⁶ The issue is that the curricula and teaching programs are all geared by long tradition to preparation for higher education that only a fraction of students are able to achieve. Secondary education thus serves as a screening device ('gate-keeper' in the parlance of the A.E.D. review) to funnel students into higher education.¹⁷ It has no independent purpose of its own. This means that only a small part of the secondary population is being provided a useful education.¹⁸ Relevance in secondary education is *de facto* defined as that which maximizes one's chances of passing the exams and moving up the educational ladder. Since most of Bangladesh's secondary school students do not receive the HSC, the academic and bookish curriculum leads to poor use of public investments in education. The vast majority who drop out are not receiving relevant preparation in skills they will need for life. As found in the ADB review, the curriculum and instruction should be geared toward existing local small business, entrepreneurship and practical skills that will enable students to avail themselves of real opportunities for gainful employment.

32. The objectives of curricula of secondary education tend to focus for the most part on transfer of factual information. As shown in the Annex tables that evaluate the new curricula introduced in 1995-97 (Annex, Table A9-13), little if any emphasis is given to higher order processes. The quality of the HSC and SSC examinations have been criticized for overemphasis on memorization, even to the extent of being able to recall the exact words in textbooks.¹⁹ For the most part memorization correlates with a curriculum that emphasizes facts and information. Current curricula are generally overloaded with information and under-emphasize development of skills and attitudes.²⁰ The lower secondary general science curriculum has numerous objectives, very few of which pertain to either skills or attitudes. The objectives do not even seem to require comprehension let alone higher abilities. An analysis of the humanities curriculum for secondary education shows a similar pattern. With the exception of geography, humanities overemphasizes knowledge

¹⁶ As study under the HSEP in 1997 found that the supply of HSC holders is abundant and their employment chances are poor. Over 100,000 candidates submitted applications for about 1900 posts to be filled on the basis of the Civil Service Examination in 1997 "The number of suitable jobs available for HSC graduates is insignificant and a substantial number of HSC graduates are therefore taking jobs formerly taken by SSC graduates. . The glut of HSC graduates in the market might also prompt questions about the value of that certificate as a passport to employment." A E D , 1998g, pp 3-4

¹⁷ The DSHE states this was not the intention, it has only become so because of unemployment for graduates at secondary level which drives more people to seek HSC and entry to higher education.

¹⁸ The DSHE has a different view: "The curriculum introduced in secondary education, if properly transacted, can deliver the desired skills, knowledge and attitudes" (written submission).

¹⁹ *Ibid.*, p 4

²⁰ *Ibid*

outcomes. A study of the teaching programs concluded: "Since the learning outcomes state knowledge of content, the tendency is to employ memorization of facts. This is a natural result of putting too much emphasis on knowledge — and little emphasis on skills and values."²¹ In sum, curricula do not stress higher order skills such as synthesis and problem-solving, but concentrate on retaining and reproducing information.²²

33. Examinations reinforce the orientation of the curriculum. As noted in the Government report, "One major weakness of the present examinations is that they do not attempt to measure the wide range of learning outcomes adequately. The examinations mostly test knowledge or ability to recall facts and information and hardly any attention is given to the higher abilities of reasoning, understanding, application, analysis and synthesis."²³ "Nearly 100 percent of the head teachers (surveyed in five thanas) admitted that the present public examinations do not measure the actual learning or all-round development of the pupils."²⁴

34. Vocational studies have recently been introduced as subjects for specialization at the SSC and HSC levels (see Volume III, Technical-Vocational Education and Training). Under this program students take their practical work at nearby TVET institutions. Fortunately, no consideration is being given to establishment of practical facilities within the secondary schools themselves. This can be seen as a positive development: it has filled heretofore underutilized spaces in technical-vocational institutions. In the past one of the problems with vocational education and training is that it drew the wrong clientele, i.e., it required Class VIII for entry and students with this level of qualifications would not seek blue collar occupations after graduation. Reportedly this phenomenon is changing, but it would be useful to do a tracer study soon on the destination of graduates who obtain SSC Vocational certificates. The issue is whether the returns in the labor market justify the additional costs of such vocational preparation. It also raises the larger issue of streaming in secondary education, e.g., whether two thirds of the students should be channeled into non-science streams as early as grade IX.

35. **Equity.** Poverty remains one of the strongest deterrents to access to secondary schooling. In addition to fees, non-school costs account for about 60 percent of the total including transportation, uniform and shoes, lighting, and especially private tutoring. This is a serious barrier to enrollment of poor students in secondary schools.²⁵ As stated in the UNDP **Bangladesh Human Development Report**, "the bottom 20 percent (of families) receive only 6 percent of the benefits of secondary education; the top 20 percent receive 35 percent of the benefits."

36. A second major issue of relevance is the extreme variations in access to equal outcomes. Higher education provides exceedingly high rates of return (see Volume I, Education Finance). An HSC certificate is one requirement for entry into higher education. To obtain an HSC under the current system, at least three things must happen: the student must attend a secondary school; it must be a good one; and the parents must be able to pay teachers for additional preparation outside the classroom (private tutoring). First, secondary schools are not equitably distributed throughout the country. Establishment of new schools is left to the

21 SEDP, Interim Report No 11: Comparative Analysis of Curricula of 1997 and 1995 for Civics, Economics, History and Geography (Class IX-X), p 52, as quoted in A E.D., 1998g, p 6

22 The NCTB differs with this view. It states: "NCTB's revised curricula are no longer inadequate and irrelevant. Textbooks based on the revised curricula give proper stress on higher order skills such as thinking and problem solving." More specifically, it adds: "The present curricula of secondary education do not focus exclusively on transfer of factual information only. The English textbooks for classes 6-10 have been written and introduced in classes with communication, language teaching learning methodology in order to develop the power of comprehension and analytical skills of the learners and to equip dropouts at the lower secondary and secondary stages with the knowledge of functional English for facing the realities of life," (written submission).

23 Government of the People's Republic of Bangladesh, *et al.*, 1992, p. 38.

24 *Ibid*, p 41

25 ADB, April 1998, p. 10.

initiative of private owners not rational school location planning. Owners tend to set up new schools in relation to parents' ability to pay fees. "It has been observed in recent years that new high schools are being established in areas which are already served by similar other institutions. This has resulted in a proliferation of non-viable sub-standard institutions."²⁶

37. Second, poorer students especially in rural areas do not have equal access to good quality secondary education because high quality institutions tend to be concentrated in urban areas, and within the better sections of urban areas. Third, even if poorer students can gain access to good quality schools, they often cannot afford the out-of-pocket payments for outside tuition (see also Volume I, Education Finance). Private tuition is one of the greatest problems with secondary education at present. To pass the SSC and HSC it is necessary to take extra help from classroom teachers on a private fee basis outside school hours. Even the best students do this because passing the HSC with high marks is a criterion for entry to the best higher education institutions. Teachers get substantial extra income from these activities. Private coaching centers, some involving satellite branches around the country and franchises, have proliferated so much that they are regarded by some as a "parallel school system." Private coaching tends to reduce the incentives for teachers to perform well in the classroom to ensure that all students master the curriculum material. Private tuition, over and above normal school fees, discriminates against poorer students in terms of competing fairly for HSC, entry to higher education and higher financial rewards.

38. Another equity problem pertains to female teachers. Female enrollments have surged, but Bangladesh has lagged in employment of female teachers. Admittedly, the proportion of female teachers can change slowly at best, since it is constrained by the availability of vacant teaching positions. However, the situation has only improved at the margin. Between 1993 and 1997 the percentage of female teachers only increased from 10.6 percent to 10.9 percent; over the same period in government secondary schools from 36 percent to 39 percent; and from 12 percent to 13 percent in non-government secondary schools (See Annex, Table A-5). This situation should be cause for concern. "There is evidence that in schools with a higher proportion of women teachers student performance is higher and higher demands are placed on girls that raise their performance (e.g. the Female Secondary School Assistance Project). The presence of female teachers in schools, especially rural and remote schools, also inspires confidence among communities to send girls to school."²⁷

Effectiveness

39. 'Effectiveness' asks the question of how well the system achieves its objectives, regardless of the relevance. Given the objectives of the curriculum, how well does the system teach those objectives. A second related question is how well the system manages to achieve its goals. This section analyzes these two topics — quality of learning and system management — in sequence.

40. **Quality of Learning Achievement** 'Quality' of education is defined as learning achievements at satisfactory standards. As stated earlier, Bangladesh is fortunate to have nation-wide criteria for quality on exit from the secondary system — the SSC and HSC examination results. The examinations, however, are fraught with problems — mainly because of the emphasis on rote memorization of factual information. For the most part this mirrors the emphasis on factual information in the curriculum. The following paragraphs present the results of the examination system as the most readily available proxy for quality.

41. **Examination Results.** In order to pass the SSC or HSC examination the candidate must pass all subjects. If even only one of eleven is failed, all have to be retaken. In one sense this is inefficient because the system denies certification to many students in subjects in which they achieved passing scores. English and mathematics tend to be the subjects with highest failure rates, which coincides with the chronic shortage of teachers in these fields, especially in rural areas.

26 Government of the People's Republic of Bangladesh, *et. al*, (1992), p. 100

27 A E D, 1998d, p 28

42. In the 1990s the number of candidates for HSC increased almost three fold, from about 240,000 in 1992 to 650,000 in 1997. Pass rates were low and generally declined in the 1990s. In 1992 about two thirds of the candidates passed the HSC and 60 percent passed the SSC. However, by 1997 these rates had decreased to 37 percent and 52 percent, respectively. Science scores tended to be significantly higher than social science at the SSC level, by 25 percentage points or more. The same held true for science at the HSC level. Female participants scored as well as males in most regions on the SSC, and had somewhat better rates than boys in the 1997 HSC.

43. Marking standards seem to be very variable from BISE to BISE and from year to year. There appears to be little guarantee of consistency of content, difficulty or marking standards. In general there is little guidance to teachers who prepare the examinations, marking is impressionistic and unreliable and the system lacks technical validity. One major reason for this has been the failure of BISEs to develop their technical capacity and sound quality review systems. Many posts are filled through deputation rather than by expertise.

44. A significant amount of cheating takes place on the examinations, some of it organized and blatant. Those who threaten to intervene are often intimidated by prospects of physical violence. Cheating on this scale indicates that confidence has declined in the system. Two factors appear to be responsible: the view that the examination does not fairly represent student abilities, and wide variation in the quality of education received between schools.²⁸ Another consequence of the stress on public examinations is that teachers have tended to neglect day-to-day assessment of student performance.

45. **Trends in School Inputs.** Recent expansion of the secondary school system has not been accompanied by a commensurate increase of facilities or the teaching force. As a result, the average has burgeoned in number of students per teacher and per class. The system faces an acute shortage of facilities. Pressure is mounting from the ballooning output from primary schools. Secondary schools typically lack sufficient classrooms and basic sanitary and other services. The average number of students per teacher is strikingly disparate. Expansion of enrollments in junior secondary schools led to an increase in the number of students per teacher by 162 percent. Non-government secondary schools had an increase of 58 percent. Students per teacher also increased substantially by 55 percent in government intermediate colleges.

46. Overcrowding in secondary classrooms has pernicious effects on the quality of teaching and learning achievements. Even though there are about 38 students per teacher, since teachers do not teach the whole weekly load, on average each teacher teaches 60 students. Often classes are crammed with 100 or more students. It is a common practice in better schools to have a lecturer using a microphone so all students can hear, but the majority of schools lacks this equipment. Lack of adequate classroom space contributes to overcrowding. Classrooms are small — normally made for 40 students — but on average 60 students are tightly packed in a classroom. Overcrowding is a phenomenon of the 1990s, the consequence of a phenomenal increase in enrollments. Table 3.5 shows the long term trends.

Table 3.5 : Students per Teacher and Class in Secondary Schools, 1970-1997

Year	Students per Teacher	Students Class per
1970	26	18
1980	27	18
1990	28	22
1997	38	56
<i>Source: BANBEIS</i>		

A double shift system is being introduced in some communities to relieve overcrowding.

47. Not only are the classrooms packed, but the annual exposure to classroom teaching is comparatively low. Students spend an estimated 120 days per year in school, compared with an average of about 180 days in most other countries.

48. Government and non-government schools can also be compared in terms of students per teacher. In 1997 teachers taught an average of 32.9 students in government secondary schools, and 43.6 in non-government secondary schools. In other words, non-government schools had about one third more students per teacher than government schools.

49. Even the best teachers would find it difficult to contend with the typical environment of secondary schools. First, there are an excessive number of specified learning outcomes. "The number of learning outcomes is unmanageably large, and virtually all appear to involve retaining and reproducing information."²⁹ Second, the textbooks contain a maximum amount of information and usually do not distinguish between essential and non-essential points. Many are simply excessively long and cannot be covered within existing schedules. In short, many are overloaded. The new textbooks for grades VI-X were considered an improvement by the teachers surveyed under SEDP; however, these textbooks have also been criticized for being longer than the textbooks they replaced, uneven and uncoordinated treatment of some concepts, and not giving enough emphasis to practical work and higher competencies such as analytical skills and application.³⁰

50. **Unequal Quality.** The quality of schooling is widely regarded as being variable in quality. Unfortunately, no good data is available to document the differences. Rural schools tend to deliver worse results than urban schools and within cities significant disparities exist between the best schools and the rest. "Opportunities therefore tend to be allocated unfairly."³¹ A UNDP-GOB survey in five thanas in 1992 showed that recurrent expenditures in urban secondary schools were twice (Tk. 1660) that of rural schools (Tk. 842). A larger percentage of total recurrent expenditures were available for non-salary costs in urban than in rural secondary schools — 66 percent vs. 71 percent, respectively.³² The mini-survey of costs in secondary schools clearly showed wide variance in expenditures per student (see Volume I, Education Finance, Annex Section C). Urban schools tend to have better facilities and staff, and more students in cities can afford to take advantage of private tuition.

51. One of the problems with teaching quality at the secondary level is the low percentage of teachers (although possessing relatively high educational qualifications) who have received teacher training. The disparity between government and non-government secondary schools is stark. Almost three fourths of the teachers in government secondary schools have received teacher training, compared with only about a third in non-government secondary schools and one-sixth in non-government junior secondary schools (Annex, Table A-18). Most teaching is done by reading the textbook to the students and having them memorize the answers to the questions at the end of the chapters. Absence of teacher training and teaching materials contributed mightily to school ineffectiveness. Even teachers who receive training are not taught techniques for dealing with prevailing large class sizes.

52. **Quality assurance.** Academic supervision is a process by which teachers are provided with professional assistance in teaching content and techniques. The academic supervisor provides in-service training to assist the teachers in planning their teaching program, testing and evaluation of students and generally improving performance.³³ Academic supervision is weak or non-existent in Bangladesh secondary education. "Academic supervision has been one of the weakest areas of secondary education. The present inspection system, established long ago, has not been able to add to the quality of education or to be a source of guidance to the teachers. Although the stated purpose of inspection of schools is an improvement of academic standards, in reality it has been centered around checking routine administrative and financial

29 *Ibid.*

30 ADB, 1999.

31 A E D, 1998g, p 10

32 *Ibid*, Table 2 24, p 82

33 Government of the People's Republic of Bangladesh, *et al*, (1994), p 4

details directed toward maintaining the status quo."³⁴ Inspection does not serve to identify weaknesses in quality or to work out remedial plans. A 1992 survey found that inspection was only concerned with academic supervision in 10 percent of the cases. Granting or renewing recognition was the major purpose of inspection with 70 percent frequency. Another 15 percent of the cases dealt with inquiries into allegations.³⁵

53. Inspection suffers not only from a lack of staff but "even more from the lack of a good methodology for assessing school quality with consistent criteria."³⁶ Without effective external quality review, "schools are responsible for assuring their own quality. Inevitably, in the absence of a good framework for inspection, there is little guidance to schools on how to identify their own weaknesses and plan to remedy them."³⁷

54. **Distorted incentives.** Perhaps in the final analysis the main problem with quality in secondary education is the lack of incentives.

- Parents and students insist on being taught for the terminal examinations. Passing the examination, not the kind of learning, is paramount. The terminal examinations, reflecting curricula, emphasize rote learning of factual information as a screening device for entry into higher education. The opportunity is lost in the process to teach knowledge, skills and attitudes more directly relevant to students.
- Owners of schools have little incentives for quality. Insufficient use is made of examination results by schools so that the public has access to information about comparative performance. The financial incentives for school managers are to: (a) continue receiving government subsidies, (b) increase the fee income by enrolling more students and increasing the level of fees charged, and (c) provide employment as teachers for friends and family. This caricature doubtless exaggerates the situation, but it illustrates the point of lack of incentives.
- The government does not hold schools accountable for results. The government has little leverage, except periodic non-renewal of recognition and discontinuation of subventions. It rarely employs these sanctions.
- Teachers also have little incentive towards rigor and maximizing learning achievement during normal class hours. The financial incentive is to maximize personal income from private tuition by teaching the same students for the examinations outside the classroom.

Management Effectiveness

55. **Central Management.** As pointed out in the ADB/AED review of secondary education,³⁸ the government plays a limited role in secondary education. More than 95 percent of the schools are non-government owned. These schools were established at the initiatives of owners, not in response to a logical process of school mapping. Since the secondary system is largely private, the government cannot force a private school to be established in an underserved area.

56. The DSHE itself is ill-equipped to provide policy guidance and program development for the sub-sector. Shortage of policy development and planning capacity is a constraint within DSHE. Currently the DSHE has only minimal capacity to conduct policy research, do planning and budgeting, monitor and evaluate programs and projects and assess school performance. Since secondary education is voluntary and most secondary schools are non-government, even the DSHE has little control over the collection of information from these schools. For the most part DSHE and BANBEIS depend on the goodwill of these schools for data on secondary education. Substantial delays occur in the production of even basic statistics. NAEM

34 Government of the People's Republic of Bangladesh, *et al*, (1992), p 44

35 *Ibid*.

36 *Ibid*, p. 13

37 *Ibid*.

38 The following paragraphs on management are taken with permission from the draft ADB appraisal report on its new secondary education project. The material is a synthesis of the analysis done by the A.E.D. in 1998 financed by the ADB

potentially is an important organization for training headmasters and administrators, but its capacity is limited.

57. The NCTB lacks necessary expertise in both curricula and textbook development. Many senior staff of the NCTB are not specialists in the field but are on deputation from other assignments. According to the UNDP report, "NCTB's level and range of expertise fall far short of the requirements, particularly at the secondary level."³⁹ Owing to strict production schedules there is little time, and even less expertise, for research on the effectiveness of the books or curriculum in classroom settings.⁴⁰

58. **Lack of Linkages Between Subventions and Performance.** "In 1970 the government introduced a policy providing salary support to the teachers of all recognized schools. Its key feature was the linking of subvention to teachers' academic qualifications, following the principle of higher pay for higher qualifications. This system was, however, replaced in the early eighties by the present subvention system, which prescribes a fixed and uniform proportion of salary grants to be extended to all non-governmental teachers and employees of all recognized educational institutions, regardless of qualifications. The present system of subvention grants started out at 50 percent of the initial step of the national pay scale, which has been subsequently increased to 60 percent and 70 percent."⁴¹ The government now finances 80 percent of the salaries of teaching staff in non-government schools. MOE subventions are supposedly based on certain criteria, such as adequacy of facilities, minimum number of students, number of teachers and their qualifications, but they are not linked to performance requirements and standards. Moreover, enforcement of these norms has been unsatisfactory. "A major criticism leveled at the subvention policy has been the lost opportunity to government for using it as a leverage to address the issues of equity, efficiency and quality of secondary education."⁴² An appropriate set of performance norms needs to be developed based on school-related conditions essential to good student performance.

59. **Inspection and Quality Assurance.** The Ministry does not have sufficient staff to monitor even the financial aspects of the subvention system, let alone quality of instruction. A district education officer may take three years to inspect all of the schools in a district. A research study in 1998 under HSEP found that only 29 percent of principals in non-government schools and 10 percent in government schools could report a visit by officials of the Ministry in the recent past. A UNDP survey in 1992 found that a school was visited an average of only 1.92 times over a five-year period and that 40 percent of the schools had been waiting for renewal of recognition for more than two years.⁴³ The large inspection load per inspector impeded supervision of secondary schools, but also inadequate logistical support including lack of transport, office equipment and furniture.⁴⁴ Reportedly, lack of staff causes the DIA to scale back fiscal audits to just every nine or ten years. When the DIA sends findings to DSHE for action, they are rarely followed up. In short, secondary schools are not supervised or held accountable for performance.

60. Schools and the central system presently do not consciously manage their educational resources to get specific educational results, e.g., to get better qualified teachers and improved facilities, or to meet qualitative performance standards such as reducing drop-out rates and improving performance on national examinations.

39 Government of the People's Republic of Bangladesh, et. al, op. Cit., p. 29.

40 The NCTB takes exception to these points. It writes: "The officers of NCTB working in the Textbook Production Service are mostly NCTB's own officers and they are experienced and trained. The officers working in the Curriculum Wing are on deputation from the Education Cadre with a long range of official and professional knowledge and expertise" (written submission). The staff of the NCTB are to receive additional training under the ADB's SESIP.

41 Government of the People's Republic of Bangladesh, et. al, (1994), pp. 74-5

42 *Ibid*

43 Government of the People's Republic of Bangladesh, et. al., (1992), p. 45

44 *Ibid.*, p. 46

61. In effect, although secondary education is described as centralized, in fact the system is loosely centralized. "The level of active management of local schools by district and zone officials is so thin that local schools are essentially operating on their own, with financial input (teacher salaries, student stipends) from the central government."⁴⁵

62. "The poor coordination between secondary education support institutions — especially BISE, DIA and DSHE — is an important issue to be addressed. While areas of responsibility may seem clear on paper, when viewed from the level of the schools it appears as if the three agencies have overlapping roles and requirements that create confusion and additional work for the schools."⁴⁶

63. Decentralization is a stated objective of the government, but little real shift of authority and decision making has taken place so far. The management system has only a skeletal structure for decentralized management with rudimentary staff at zone and district levels to monitor, evaluate, inspect and audit. The only staff at thana level at present dealing with secondary education are those working on the FSP. The need for improved supervision and inspection, especially academic supervision, is expressed by officers at all levels. Effective decentralization will require provision of additional staff at the zone, district and thana levels based on careful assessment of their new roles, responsibilities and functions under a decentralized system.

64. Despite its centralization, information flows from the center to the periphery tend to be weak and sporadic. Information is not widely available on government policies and regulations. Only two reports define rules of management and finance of the secondary system and both are dated and incomplete.⁴⁷ It is also unclear which rules are enforced and to what extent at the school, regional and central levels. Principals get information mostly by meeting with officers at the district level. Often they complain about lack of standards and information on government policies and requirements.

65. Performance of school-based management has also been weak. Often the school management committees or governing bodies are inactive and do not meet. To some extent community participation in school development has been marginalized by the government policy on subsidies. This has weakened the teachers' accountability towards the community and contributed to the apparent indifference of SMCs in controlling the staffing and physical standards for better performance.⁴⁸

Internal Efficiency

66. **Student Wastage** As stated previously, the effective outputs of students from the system of secondary education comprise only a small fraction of those who enter the system. This extreme wastage is shown in Table 3.6.

Table 3.6: Indicative Survival Rates in Secondary Education

Stage	Coefficient %	Cumulative Survival Rate(%)
Percent Entering Grade VI	100	100
Percent Completing Grade X	60	60
Percent Passing SSC	52	31
Percent Entering Grade XI	80	25
Percent Completing Grade XII	62	15
Percent Passing HSC	37	6

Source. Bank staff estimates based on BANBEIS data.

45 A.E.D , 1998d, p 38.

46 A.E.D , *ibid.*, p 35

47 One of them is Dr Fazlur Rahman, ed , "Beshorkari Shikha Prothisthan Guide," 1997

48 Government of the People's Republic of Bangladesh, *et. al* , 1994, p. 86

67. Overall, about 60 percent of the entrants to the secondary school level complete the five-year course. This is a significant improvement from the early 1990s when only about 40 percent completed the program. Annual repetition rates now average between 4-5 percent per year, compared with 5-12 percent at the beginning of the decade. Dropout and repetition rates tend to spike in the final year of each cycle, as preparation for the external examinations intensifies. Between 1993 and 1997 the secondary school system provided 4.8 million student-years of instruction to produce 581,000 graduates from grade X. With perfect efficiency (zero dropout and repetition) that would have taken 2.9 million student-years of instruction. The "wastage" was 1.9 million student years of instruction, or 67 percent more than necessary. This wastage does not take into account that subsequently only about half the graduates of grade X pass the SSC examination. Most students who are successful at the SSC continue on to higher secondary education, although the transition rate varies from 70-90 percent from year to year. Higher secondary is only two years in length, yet 40-50 percent of the entrants fail to complete. This means, again, that about 60-70 percent of the instructional years are "wasted" on students who do not finish. Then only about 40 percent of those who take the HSC are successful. It seems the secondary system is designed for failure rather than success.

68. Many causes exist for dropout in the system. Poor quality of preparation for examinations is a factor, as evidenced by the jump in repetition and dropout rates just before the two external examinations. Lack of jobs may deter parents from keeping their children in school. Early marriage is a factor in dropout for girls. The main cause, however, is the high costs to parents both in terms of direct outlays for school expenses and outside tuition, and the opportunity costs (foregone earnings). Analysis of HES data shows that children who complete secondary school come from households with high income. This was found to be true for all levels of secondary education. A higher level of education of the father results in a significant increase in the probability that the child completes school. For each unit increase in father's education, the probability of completing lower secondary by a male student rises by 2.5 percent, for females it rises by 4.4 percent. Access to electricity is a good proxy for wealth. For households who have access to electricity, the probability of completion of lower secondary for a male student is 11 percent higher than the probability for households who do not have access to electricity; and for females, it is 33 percent higher.⁴⁹ At the higher secondary level, the probability of completion is 3.5 percent higher for male students from households with electricity and female students is 5.1 percent.

69. **Uneconomical Sizes.** In a system so overcrowded it is difficult to imagine undersized schools and undersubscribed classrooms. Yet that is apparently the case with non-public intermediate colleges. Non-government intermediate colleges average only 279 students. This size is too small for efficient use of expenditures. These colleges also average only 16 students per teacher, compared with over 50 in their government counterpart institutions.

E. GOVERNMENT PLANS AND POLICIES

70. **The Proposed National Education Policy (NEP) 1998.** The proposed National Policy on Education and the Fifth Five Year Plan make a series of sweeping recommendations that are currently under discussion concerning the secondary education sector. The proposed NEP recommended that the secondary education system be restructured by transferring the first three years, lower secondary (grades VI-VIII) to primary education. The objectives of the new, expanded system of basic education would be maintenance of literacy, basic life skills, an introduction to science and technology in preparation for low-level employment, self-sufficiency and continued education. Grades 9-12 would constitute a new integrated cycle and would provide both a vocational and higher education focus in all schools. The reconstituted secondary schools would provide broad-based education to promote general skills, intermediate life skills and science and

49 The large difference between the coefficient on electricity for males and females perhaps reflects the fact that most homes without electricity are very poor and although there is sufficient awareness even in very poor households to send their boys to school, the same does not apply for girls

technology in preparation for mid-level employment, self-employment and continued education.⁵⁰ More specifically, the proposed NEP policy recommended that:

- Specialized courses should be introduced in both stages, with vocational, science and academic streams in the upper cycle. The vocational stream would give multiple opportunities for specialization.
- Private tutoring and coaching centers (which keep teachers from covering the course work during school hours) should be discouraged with the help of local communities. It is not clear what kind of help is envisioned here.
- Elimination of the SSC as an external examination and replacement by certification by the school.
- The student/class ratio should be 1:40, compared to the current 1:60.
- A scholarship program for poor and meritorious students should be introduced.

71. The Fifth Five Year Plan (1998-2002) recommends that:

- Double shift schooling be introduced gradually in urban and selected rural areas as response to the practical difficulties posed by high enrollment at secondary/higher secondary levels.
- Courses on agriculture and computer science at Grades IX and X be introduced to make education at this level job-oriented.
- Suitable job-oriented subjects be introduced at the secondary level to enable students to be self-employed.
- In-service and pre-service teacher training facilities be modernized.
- The gap in educational facilities between urban and rural areas be reduced.

72. The Plan suggests the following programs to follow through on the recommendations above:

- Nearly 7,000 schools will be provided with three additional classrooms and teaching aid/materials.
- Double shift of schooling will be introduced gradually both in urban and selected rural schools.
- Laboratory facilities of secondary schools will be modernized/developed to facilitate teaching of science and technology.
- Non-government women colleges will be nationalized at district level.
- Stipends and free tuition for unmarried girl students of Grades VI to X will continue and in addition, free tuition and stipends will be provided for female students of Grades XI and XII.

73. **Proposed Structural Change.** The proposed structure seems simple, but the requirements and implications are vast. One issue is how to add lower secondary onto primary education. Physically, should three additional classrooms be built at existing primary schools? Is it administratively and pedagogically appropriate to merge lower secondary with primary schools? Administratively should teachers and principals be transferred from the DSHE to DPE? Should DSHE staff be transferred to DPE? If lower secondary becomes part of compulsory basic education, what are the financial implications? Would fees that are now paid for lower secondary education need to be assumed by the government, and also payments for textbooks? What will happen to existing secondary schools? How would the lower cycle be phased out and an upper cycle added? Similarly, how would the intermediate classes be phased out of degree colleges? What would become of intermediate colleges — how would they incorporate grades X and XI? Instead of lowering the entry requirements, would they not seek to upgrade themselves to degree colleges? What kind of curriculum would be needed for grades IX-XII?

74. Providing a greater proportion of students with 8 years of education seems to be a worthwhile objective and one that makes sense once primary education becomes universal. However, priority should be given to raising quality in lower secondary education as it inevitably expands. Whether the 8 years are provided

50 ADB, April 1998, pp 9-10

under the same roof called primary school, or in a 5-year primary cycle followed by a 3 year secondary cycle needs further thought and discussion. Adding three classrooms to all existing primary schools would involve costs that could not be justified in terms of improved management or pedagogy. Managing 8 grade schools is more difficult than managing 5 grade schools. Pedagogically, an 8 grade school, with age differences and diverse curriculum requirements, requires more sophisticated systems of teacher and classroom allocations. The 5-3 system for grades I-VIII is functional. It is well known and does not present any problems for either the children or the parents. It is similar to the system in neighboring countries. It allows for manageable school size. It groups children who are more homogeneous. On balance, it would seem more appropriate from a cost and pedagogical viewpoint to expand the number of separate lower secondary schools rather than attaching grades VI to VIII to primary schools. Under this structure they could still be considered part of compulsory basic education.

F. VISION FOR 2020: REORIENTATION AND EQUAL ACCESS TO QUALITY

75. Secondary education, an extension of basic education, is an important complement to social and productivity objectives and should receive the second highest priority of government and donor support. By 2020 Bangladesh needs to have a greatly expanded and reoriented system of secondary education. By 2020 lower secondary education (Classes VI-VIII) will be compulsory and will provide the majority of students their terminal education before entry into the labor force. Secondary (Class IX-X) and upper secondary (Class XI-XII) will be merged into one structure and will accommodate about half and one third of the age group, respectively. This implies a major expansion of enrollments over the coming two decades. Enrollments at each level of secondary education would have to double, for a total of about 6-7 million additional places and 120,000 additional teachers. Costs per student must be kept low through maintaining large class sizes. To compensate teachers will be specifically trained for dealing with large class sizes and ample, well designed textbooks and teaching materials will be available. The secondary system will be reoriented to provide a more relevant and practical preparation for the majority of students for whom it is terminal education. The SSC will have been replaced by school-based evaluation and the content of the HSC will have been reformed to stress higher level skills. Unfair practices will have been eliminated. Gender parity will have been fully achieved not only in enrollments but also substantially achieved in the teacher force. Above all, more equitable access will have been achieved so that students from disadvantaged households have not only equal chances to enter secondary education but also to complete it successfully.

76. However, to achieve this vision Bangladesh must eliminate fundamental distortions in the secondary school system and address the following challenges:

- **Reorienting Content.** At present the main function of secondary education is to ration access to higher levels of the system. Secondary education has no independent purpose of its own. Incentives to pass through the funnel are tremendous because of chances for higher incomes. However, fewer than one in ten of the entering students manages to complete the secondary system and proceed to higher education. Nine in ten students leave the secondary system unable to advance in the academic system and ill prepared for the lives they face — mainly in the informal sector of the economy. Moreover, those that do go on to further studies have not been well prepared in terms of thinking and analytical skills. The content of secondary education, as reinforced by the terminal HSC examination, emphasizes rote memorization of factual information. This content is a poor use of public investment in education. DSHE agrees that examination reform is badly needed to: (a) measure educational achievements better, (b) discourage distortions caused by private tuition; and (c) eliminate unfair means in the examination hall. However, the HSC will remain a key exit examination for secondary education.
- **Reducing Inequities.** Bangladesh fails to provide equal access to quality secondary education and outcomes. Access is uneven geographically because schools have been established where parents can afford them, not where the most needy children live. Among existing schools major disparities exist in provision of inputs, such as allocation of trained teachers, class sizes and facilities. Poorer students

cannot afford the costs necessary for success in secondary education. Private tutoring is common throughout secondary education to prepare for the final examinations. Fees for out-of-class tutoring — often by the same teachers — costs private households substantially more than public tuition fees. Such payments discriminate against the poor and payments for private tuition are a bad use of the private willingness to invest. Private tuition undermines the equity goals of public expenditure on secondary education.

- **Raising Incentives for Quality.** Poor quality is the product of multiple factors such as large class sizes (which burgeoned from an average of 22 students to 56 students in the 1990s), untrained teachers, lack of self-teaching materials, curricula with excessive objectives and unteachable textbooks. However, perhaps the most basic causes are lack of accountability and perverse incentives in the system. Government subventions are not linked to performance. That, plus the lack of effective supervision at the local level, means that the schools are not held accountable for results. Incentives for quality are largely absent within the system. School owners are driven by the need to maximize fee income and teachers seek to maximize the out-of-school income. These distorted incentives need to be rationalized.

G. TOWARDS A STRATEGY FOR DEVELOPMENT OF SECONDARY EDUCATION

77. Bangladesh's secondary education cannot simply be expanded to cover the enrollment demand. Key changes are needed in purpose, orientation, examination system, accountability and in the management structure to make the system more relevant, effective and efficient. Following are several ideas on how to develop the system in non-traditional ways. The basic strategy has six key elements:

- Given their entrepreneurial dynamism, strengthen the non-government schools and avoid over regulation of these institutions which would hinder increasing access.
- Focus on establishing incentives among key stakeholders for quality improvement.
- Use bottom-up approaches.
- Focus on key points of intervention at the center that influence the system as a whole, e.g., examination reform.
- Build accountability.
- Find ways to cope with existing conditions, e.g. very large class sizes, because they are not likely to change much in the near future.

78. The strategy outlined below seeks four objectives: (1) reorient the content of secondary education to increase its usefulness in preparing both those who leave formal schooling at that level and those who proceed to higher education; (2) increase the access of disadvantaged groups to quality secondary education; (3) top-down approaches to quality improvement by investing in critical interventions; and (4) bottom-up interventions to improve incentives towards greater performance.

Table 3.7: Objectives and Means

Objectives	Means
1. Orientation: Enhance the relevance and usefulness of secondary education (a) for the majority of students—those who do not go on to higher education; and (b) the analytical skills of	1. Deemphasize the importance of external examinations. Replace the SSC with an internal school certificate, ⁵¹ and reform the content of the HSC in the direction of testing higher order skills. z 2. Rethink the purpose and objectives of secondary education to include those that do not go on to higher education.

Continued

51 'Deemphasize' means that the SSC — which appears to serve no useful purpose in the labor market at present — could be replaced by a school-based assessment and certificate. There will continue to be a strong need for the HSC (or some grade 12 exit

Continued Table 3 7

Objectives	Means
<p>those who do proceed to higher education.</p>	<ol style="list-style-type: none"> 3. Clarify the role of schools in preparing for employment. Most employers value graduates who are prepared to learn on the job and who have analytic and high level thinking skills. 4. Emphasize basic academic subjects that enable graduates to learn continuously after school and on-the-job. 5. Conduct research to identify the kinds of knowledge, skills and attitudes important for success in wage and self-employment. 6. Rework curricula and textbooks accordingly, starting with core subjects. 7. Reorient the examinations to the new curricula. 8. Provide financial and other incentives to encourage optional courses to give broad preparation for the informal sector, such as basic business skills, accounting, etc. 9. Avoid the mistake of assigning secondary schools the role of providing specific occupational training; leave that for short, intensive training after completion of schooling linked with employment possibilities.
<p>2. Substantially improve the access of poorer segments of society and other disadvantaged groups to reasonable quality secondary education and enhance their chances for success.</p>	<ol style="list-style-type: none"> 1. Equalize allocation of public subventions across schools by introducing normative (per student) financing. 2. Conduct school mapping nationwide to identify areas where poor groups lack physical access to secondary education. 3. Establish a school construction/expansion fund to finance school building for underserved areas. 4. Conduct targeted research on reasons why poorer students discontinue their secondary education 5. Continue and strengthen programs that compensate students from poor families for the direct and indirect costs of secondary school attendance. Specifically, continue the FSSP but target it towards students with limited financial means. 6. Conduct a detailed assessment of the geographical distribution of the factors associated with quality of achievement, e.g., trained teachers, class sizes, textbook possession, quality of headmasters, etc 7. Based on the above analysis, identify areas and schools eligible for assistance and establish a school improvement fund. 8. Reduce substantially the discriminatory effects of private tutoring by: (a) abolishing the practice; (b) institutionalizing it during the out-of-school hours; and (c) subsidizing attendance for students from poor families.
<p>3. Top down quality improvement: Invest in strategic interventions at</p>	<ol style="list-style-type: none"> 1. Scale down curricula and syllabi (i.e , eliminate overload) by concentrating on priorities.

Continued

examination), and for some form of selecting entrants to higher education. They do not have to be the same, but they could. Significantly changed content is essential for the secondary exit examination

Continued Table 3.7

Objectives	Means
<p>the central level to raise quality across the board in terms of learning achievements.</p>	<ol style="list-style-type: none"> 2. Define minimum educational standards based on the new curriculum and careful research on the effectiveness of existing curricula. 3. Provide incentives to the private sector to revise and publish textbooks based on new curricula; produce more than one text and allow schools to choose; guarantee publishers a market for the books. 4. Reform the examination system to measure key learning (e.g., higher order skills) and provide feedback on system performance. 5. Reform the subvention system to link subsidies with value added (performance) and thereby establish accountability. Design new management information systems for key users through BANBEIS to support performance-based incentives and normative financing.
<p>4. Bottom-up quality enhancement: provide incentives for schools⁵² to increase their performance.</p>	<ol style="list-style-type: none"> 1. Develop and disseminate criteria and techniques for self-evaluation of school performance by communities and school staff. Specifically: <ul style="list-style-type: none"> ◦ Define the characteristics of successful schools and teachers; these indicators could include: time on task, days in school, percentage of the textbook that is covered, proportion of the homework assignments graded by teachers. ◦ Adapt these definitions in each school. ◦ Help communities (e.g. SMCs) to identify and monitor the characteristics of effective schools. ◦ Disseminate the indicators to parents so they can evaluate the schools. 2. Provide financial incentives for increasing the educational value added by schools. Specifically: <ul style="list-style-type: none"> ◦ Establish school improvement plans at the local level (as in Chile) and finance them through a competitive school improvement fund ◦ Develop incentive systems to reward good schools' and teachers' performance. ◦ Introduce school incentives such as grants for school improvement initiatives and prize funds 3. Concentrate hard on training headmasters because of their key role in quality improvement at the school level, e.g., building up the NAEM. 4. Analyze and introduce incentive schemes to reward teachers, including: <ul style="list-style-type: none"> ◦ Financial incentives such as merit pay, performance bonuses, career ladders, and location premiums; and ◦ Non-monetary teacher incentives: improved working conditions, teacher recognition schemes, classroom support in the form of workbooks and teaching aids. 5. Develop an academic support system for coaching teachers to improve their classroom performance. Specifically: <ul style="list-style-type: none"> ◦ Invest in training head teachers as change agents in how to provide academic coaching for staff. ◦ Encourage devolution of functions to local areas (e.g. thanas) and SMCs; develop thana supervision and support services as in the FSSP. 6. Train administrators and teachers in techniques for assessment of learning achievements. 7. Encourage managers and teachers to find ways to teach effectively in class sizes of 100 students or more; make use of techniques in use in other high-population countries. Provide schools with workbooks, lab workbooks and other self-learning materials that students can use when class sizes are large and they need to complement what they study in class with self-study sections.

Investment Implications

79. Implementation of the reforms and improvements mentioned above would likely require financing in the following areas:

1. School location planning
2. School construction funds
3. School improvement funds
4. Analysis of alternatives to the present system of financial subventions so as to link subsidies to value added (performance) — normative financing or voucher systems
5. Research and analysis on factors in quality
6. Revision of curricula and textbooks
7. Revision of examination systems
8. In-service training of headmasters on techniques for academic supervision
9. In-service training of headmasters and staff on techniques for assessment of learning achievements; and for dealing with large class sizes
10. Establishment of thana academic support and supervision units to support decentralization

80. With the possible exception of equalizing subventions through normative financing, the Secondary Education Sector Improvement Project, approved in June 1999 by the ADB, promises to make an excellent start on addressing comprehensively the issues raised in this background paper. It includes the following components:⁵³

Strengthened Management Capacity

- Policy support and strategic planning
- Decentralized management
- Performance-based management

Quality Support Systems

- Improving curriculum development
- Privatizing secondary textbooks
- Reforming student assessment and public examinations
- Reforming secondary teacher education
- Strengthening school management and supervision
- School improvement fund

Equitable Access

- Facilities development in underserved areas
- Stipends for female students (continuation of FSP)

81. Based on the results obtained additional substantial investment will be required in secondary education over the first two decades of the 21st century.

82. **Further Studies Needed.** (1) Study on expenditures per student for different types of schools and different locations; (2) Study on examination results for different types of schools and students (urban/rural location; public/non-government school; male/female; income level of students.) This study could make use of data stored in BISE computers on SSC and HSC scores.

53 "Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Peoples' Republic of Bangladesh for the Secondary Education Sector Improvement Project," Asian Development Bank, Manila, RRP BAN 30332, May 1999

ANNEX

A. STATISTICS AND DESCRIPTION OF THE SYSTEM

83. The following table compares the transition rates for selected years in the 1990s.

Table A-1: Transition Rates from Primary to Secondary

Year	Graduates from Grade V (000s)		Admission in Grade VI (000s)		Transition Rate (percent)	
	Total	Girls	Total	Girls	Total	Girls
1989	1112	485	-	-	-	-
1990	1183	509	709	276	63.8	56.8
1991	1333	644	771	293	65.2	57.5
1992	1499	710	924	461	69.3	71.6
1993	1595	737	1062	507	70.8	71.8
1994	1755	813	1196	583	74.6	79.1
1995	2000*	950*	1368	673	77.9	82.8
1996	2200*	1000*	1580*	770*	79.0	81.0
1997	-	-	1730*	830*	78.6	83.0

Transition rate is number in year 'x' as a age of corresponding number in year 'x-1'.
 * = estimate. Sources: BANBEIS, Bangladesh Education Profile, June 1997; BANBEIS, Bangladesh Educational Statistics, 1997.

84. Enrollments have expanded considerably, as shown in Table A-2.

Table A-2: Enrollments in Secondary and Higher Secondary Education, Total, 1990-1997

	Enrollment (in thousands)					Increase (in thousands)
	1990	1991	1993	1995	1997	
Secondary Grades (VI-X)	2994	3156	4142	5059	6124	3130
Higher Secondary (XI-XII)	568	580	619	916	931	363
Total Enrollment (VI-XII)	3562	3736	4761	5975	7055	3493

Excluding madrasah schools.
 Sources: BANBEIS, Bangladesh Education Profile, June 1997; BANBEIS, Bangladesh Educational Statistics, 1997.

85. The key points from the Table A-3 below are:

- The growth in non-government schools: 58 percent for junior secondary, 227 percent for intermediate colleges, and 41 percent for degree colleges. In absolute terms, between 1993 and 1997 about 1,100

junior secondary schools were opened, almost 1,600 non-government secondary schools, 620 non-government intermediate colleges, and 160 non-government degree colleges.

- The massive growth in enrollments at non-government intermediate colleges (120 percent), non-government junior secondary (85 percent), and non-government secondary (71 percent) and at Dakhil (50 percent).
- The growth in teaching staff exceeded the growth in enrollments in all types of institutions, except junior secondary and non-government intermediate colleges (where students per teacher actually declined over the period from 20.2:1 to 15.8:1).

Table A-3: Growth in Second Level Education by Type of School, 1993-1997

Type of School	Schools			Teachers (000s)			Students (000s)		
	1993	1997	+/-	1993	1997	+/-	1993	1997	+/-
• Junior Secondary	1905	3002	1,097 (58%)	12.4	19.3	6.9 (56%)	342	632	290 (85%)
• Secondary (N.G.)	8873	10459	1586 (18%)	107.2	130.3	23.1 (22%)	3595	5246	2552 (71%)
• Secondary (Govt.)	317	317	0	7.1	7.5	0.4 (6%)	215	246	31 (14%)
• Dakhil	3825	4795	970 (25%)	47.5	58.4	10.9 (23%)	686	840	280 (50%)
• Interm. Coll. - N.G.	273	893	620 (227%)	5.6	15.8	10.2 (182%)	113	249	136 (120%)
• Interm Coll. - Govt.	11	8	-3	0.3	0.1	-0.2	7.4	6.5	-0.9
• Alim	806	983	177 (22%)	12.7	17.5	4.8 (38%)	50	62	12 (24%)
• Interm. In N.G. Degree	384	543	159 (41%)	11.3	17.9	6.6 (58%)	292	367	76 (26%)
• Interm. In Gov. Degree	219	225	6 (3%)	7.4	9.5	2.1 (28%)	206	307	101 (49%)

Source: Various tables in and calculated from BANBEIS, 1998.
Interm.= Intermediate College or intermediate level within Degree College, N G = non-government
Numbers may not add due to rounding

As shown in the table above, about 3460 new non-government institutions were created between 1993-97 compared with 1150 public institutions, all of which were madrasahs.

Table A-4: Proportion of Girls as Percent of Total Students Enrolled, 1990-97

	1990	1991	1993	1995	1997	Increase
	Female Enrollment (in thousands)					
Secondary Female	1016	1070	1857	2373	2922	1906
Higher Secondary Female	160	164	209	322	335	175
Total Female Enrollment	1176	1234	2066	2695	3257	2081

Continued

Continued Table A-4

	1990	1991	1993	1995	1997	Increase
Females as Percent of Total Enrollment						
Grades VI-X- Female	33.9	33.9	44.8	46.9	47.7	13.8 pts.
Grades XI-XII Females	28.2	28.3	33.8	35.1	36.0	8.4 pts.
Excluding madrasah schools.						
Sources. BANBEIS, <i>Bangladesh Education Profile</i> , June 1997; BANBEIS, <i>Bangladesh Educational Statistics</i> , 1997.						

Table A-5: Proportion of Female Teachers by Type of School, 1993, 1995, 1997
(percentage of total teachers)

Type of School	1993	1995	1997
Junior Secondary	10.6	11.1	10.9
Government Secondary	36.2	36.4	38.7
Non-government Secondary	11.8	12.8	13.3
Government Intermediate College	22.0	9.7	13.6
Non-Government Intermediate College	18.3	20.7	20.6
Government Degree College*	20.0	18.7	20.6
Non-Government Degree College*	15.8	17.2	15.7
* = Includes both degree and intermediate sections			
Source. BANBEIS, 1998			

Table A-6: Students per School and per Teacher
by Division and Type of Secondary School

Division	Junior Secondary				Secondary Schools			
	Students per School		Students per Teacher		Students per School		Students per Teacher	
	Govt.	N.G.	Govt.	N.G.	Govt.	N.G.	Govt.	N.G.
Chittagong	-	227	-	35.5	655	570	30.9	48.1
Sylhet	-	185	-	29.9	595	478	29.7	43.2
Dhaka	-	230	-	33.1	982	594	35.0	44.0
Khulna	-	209	-	30.5	786	424	33.5	33.9
Rajshahi	-	197	-	34.5	712	460	33.0	38.1
Barisal	-	209	-	30.4	730	373	34.1	30.3
Total Ave.	-	211	-	32.7	776	502	32.9	40.3
N.G. = non-government								
Source. Calculated from Section I, Table 19, BANBEIS, <i>Bangladesh Educational Statistics 1997</i> , November 1998								

86. The points that can be derived from the above table are:

- The relatively small size of junior secondary schools (averaging 211 students each), virtually all of which are located in rural areas.
- The smaller size of non-government secondary schools (502 students) compared with government secondary schools (776 students).

- The much higher average number of students per teacher in non-government (40.3 students per teacher) than government school (32.9 students). Although not shown above, the employment of teachers did not keep pace with enrollment expansion in non-government secondary schools, and number of students per teacher increased by almost one third from 33.5 in 1993 to 43.6 in 1997.

**Table A-7: Higher Secondary Students per School and per Teacher
by Division and Type of College**

Division	Intermediate Colleges				Intermediate Sections of Degree Colleges			
	Students per School		Students per Teacher		Students per School		Students per Teacher	
	Govt.	N.G.	Govt.	N.G.	Govt.	N.G.	Govt.	N.G.
Chittagong	-	245	-	16.5	2,264	1,372	64.7	43.0
Sylhet	422	187	52.8	15.9	1,959	516	51.4	21.5
Dhaka	857	376	46.7	19.4	2,859	1,341	32.5	40.2
Khulna	1,560	302	74.3	17.8	2,391	993	58.0	29.4
Rajshahi	634	241	48.8	12.1	1,999	890	49.0	25.8
Barisal	-	294	-	20.1	1,931	648	51.7	20.0
Total	807	279	52.5	15.8	2,339	1,081	55.0	32.7

N.G. = non-government
Source. Calculated from Table Section II, Table 10, BANBEIS, Bangladesh Educational Statistics 1997, November 1998.

87. Key points from the above table are:

- The much larger size of government compared with non-government schools, including 807 vs. 279 students at intermediate colleges; and 2,339 vs. 1,081 students at degree colleges, respectively.
- The substantially greater average number of students per teacher in government compared with non-government colleges, e.g., 52.5 vs. 15.8 at intermediate colleges, and 55.0 vs. 32.7 at degree colleges, respectively.
- The apparently uneconomic size of non-government intermediate colleges at an average of only 279 students and overstaffing—shown in the comparatively low average number of students per teacher at just 15.8.⁵⁴ The extreme growth for this category of institutions (227% between 1993-97) may have been responsible for overexpansion of institutions of uneconomic size.

88. **Teacher Training.** Teachers in secondary schools are recruited first to teach and later are provided with training. Applicants must have a first degree to teacher in lower secondary and a master's degree to teacher at the higher secondary level. Teachers in secondary school are eligible to take a ten-month training program leading to a B.Ed. No professional training is required for teachers at the higher secondary level. A 56-day training course is provided for higher secondary teachers in a newly established Higher Secondary Teacher Training Institute under the ADB's HSEP. Some twelve Teacher Training Colleges (TTC) exist, the Institute of Education and Research at the University of Dhaka, an Institute of Distance Education at the Bangladesh Open University. The current annual output is approximately 7,500, including 4,500 from TTCs, 2,000 from the Open University in B.Ed. distance programs and another 1,000 from private institutions. This institutional capacity is insufficient. Projections of new teachers needed for Classes IX-XII alone are about 12,000—14,000 per annum between the year 2000 and 2004.⁵⁵ A new teacher training curriculum was approved recently and is being implemented. "Unfortunately, it is not an improvement over the former in

54 Clarification is needed to explain the extreme variation in students per teacher in intermediate colleges between government and non-government schools. Teachers in government schools could be working a double shift; teachers in non-government schools could be part-time. Either phenomenon would change the ratio substantially.

55 AED 1998d, p.26.

terms of subject overload and imbalance between educational theory and subject methodology, with more weight given to theory. No distinction is made between curriculum and teaching strategies for pre-service teachers and in-service teachers. Student teachers complain about the lack of more active teaching strategies used in the colleges and modeled for use in schools."⁵⁶ There are no regular in-service training opportunities for practicing teachers.

89. **Management Training.** The National Academy of Educational Management (NAEM) is the only institution in Bangladesh specifically for training educational administrators and managers. It was established as the National Institute of Educational Administration, Extension and Research in 1984. Its main functions are to conduct research on educational planning and administration, to provide in-service training to administrators and headmasters, and to provide consultative and advisory services on educational administration. The NAEM has two divisions, (a) Management and Administration, and (b) Extension Training. Its capacity is limited. Its annual capacity is about 1,600 trainees per year, of which it trained about 1,200 in 1998. However, half the trainees received "foundation" training for civil service positions and the remainder were heads of institutions receiving management training. At its historical rate of approximately 480 principals and headmasters per year it would take at least 50 years to train the full target group of secondary principals and headmasters.⁵⁷ However, expansion of capacity could reduce considerably the time required to cover this priority target group, particularly through the use of regional and satellite centers.

90. The table below presents the scope of its training activities in the 1990s.

Table A-8: Training by NAEM

Type of Course	Clientele	Training Given 1990-99	Training Planned 1999-2000
Foundation Training	Lecturers, Government Colleges	6240	600
Education Management and Administration	Principals of Colleges, public and non-government	1420	250
Education Management and Administration	Headmasters of Secondary Schools, public and non-government	1510	250
Pilot on Institutional Management	Headmasters of Secondary Schools	80	30
Training of Trainers	Professors, Heads of Institutions, Educational Administrators	60	180
Computer Applications	Education administrators	80	80
Project Management	Education administrators	140	100
Educational Administration	District Education Officers	30	130
Office Management	Thana Office Project Managers	120	-
Research Methodology	Education administrators	30	50
Institutional Management (Under HSEP)	Principals of Colleges	390	-
Seminar and Workshop	Educational Administrators	-	-
Total		10,080	1660

Note: Numbers are rounded to nearest ten. Totals may not add due to rounding
Source: NAEM

56 SEDP, 1997, as quoted in AED, 1998d, p. 27.

57 *Ibid*, p 41.

Another issue faced by NAEM is the lack of evidence upon evaluation that the training imparted makes an impact in changes on management on the ground. NAEM plans to use the results of evaluation and impact in re-designing and providing follow-up training for school administrators.

B. ADMINISTRATION AND MANAGEMENT

91. Centralization of powers has been a notable feature of educational administration in Bangladesh. Decisions inhere at the top. Virtually no authority exists at district levels.⁵⁸ Three central institutions are key to administration of secondary education, the DSHE, NCTB and BISEs.

92. **DSHE:** The Directorate General for Secondary and Higher Education is the main agency for implementing government policies in secondary education. It controls 13,800 secondary schools (including junior secondary), 900 intermediate colleges, intermediate sections in almost 800 degree colleges plus 5,800 madrasah secondary schools. The organizational structure of the SGSHE is presented in the attachment to this Annex. The Directorate has no inspection staff at the Thana level, apart from staff dealing with the Female Scholarship Program. It has no machinery for supervision of intermediate courses in colleges.⁵⁹ It is generally believed that the powers and functions in the area of secondary education have been unduly centralized. Recruitment of teachers and even lower employees of government schools is the responsibility of the DSHE, and until recently, all matters pertaining to payment of salary subventions of teachers. As a result of the administrative pressure of routine activities, the Directorate has little time to perform its professional responsibilities.

93. **NCTB:** The National Curriculum and Textbook Board is responsible for developing curricula and publishing and distributing standard textbooks. Its main functions are to: (a) examine curricula and introduce changes; (b) pre-test and evaluate the effectiveness of curricula, syllabuses, and textbooks; (c) arrange for preparation of textbook manuscripts; (d) approve textbooks, and (e) publish, distribute, and sell textbooks.⁶⁰ Its two professional wings correspond to these two purposes. Most of the effort is concentrated on the textbook production cycle. The NCTB produces some 55 million primary textbooks each year and 26 million secondary (grades VI-X) texts. Textbooks for grades XI-XII are produced mainly by commercial publishers and sold on the open market, but NCTB produces about 0.6 million texts in English and Bangla for higher secondary. The NCTB is an autonomous institution that supports itself through the sale of textbooks and royalties from the publishers.

94. In 1993, a major review was undertaken of the curriculum for classes I through XII. This resulted in the adoption of a new curriculum for secondary schools in 1995. The process reportedly suffered from "time constraints, lack of research-based data, lack of expertise in curriculum development of generalists and subject committee members and lack of reference materials."⁶¹ External assistance was provided in ADB projects for the curriculum revision, but the revisions were completed before arrival of the experts.⁶² New secondary textbooks were prepared by authors in open competition commissioned by the NCTB. From January 1997 all secondary schools have been using the textbooks written to the 1995 curriculum. New textbooks for higher secondary were written by individual authors, evaluated by the NCTB, published commercially, and distributed through bookshops.

⁵⁸ Government of the People's Republic of Bangladesh, *et. al.*, (1992), p.46.

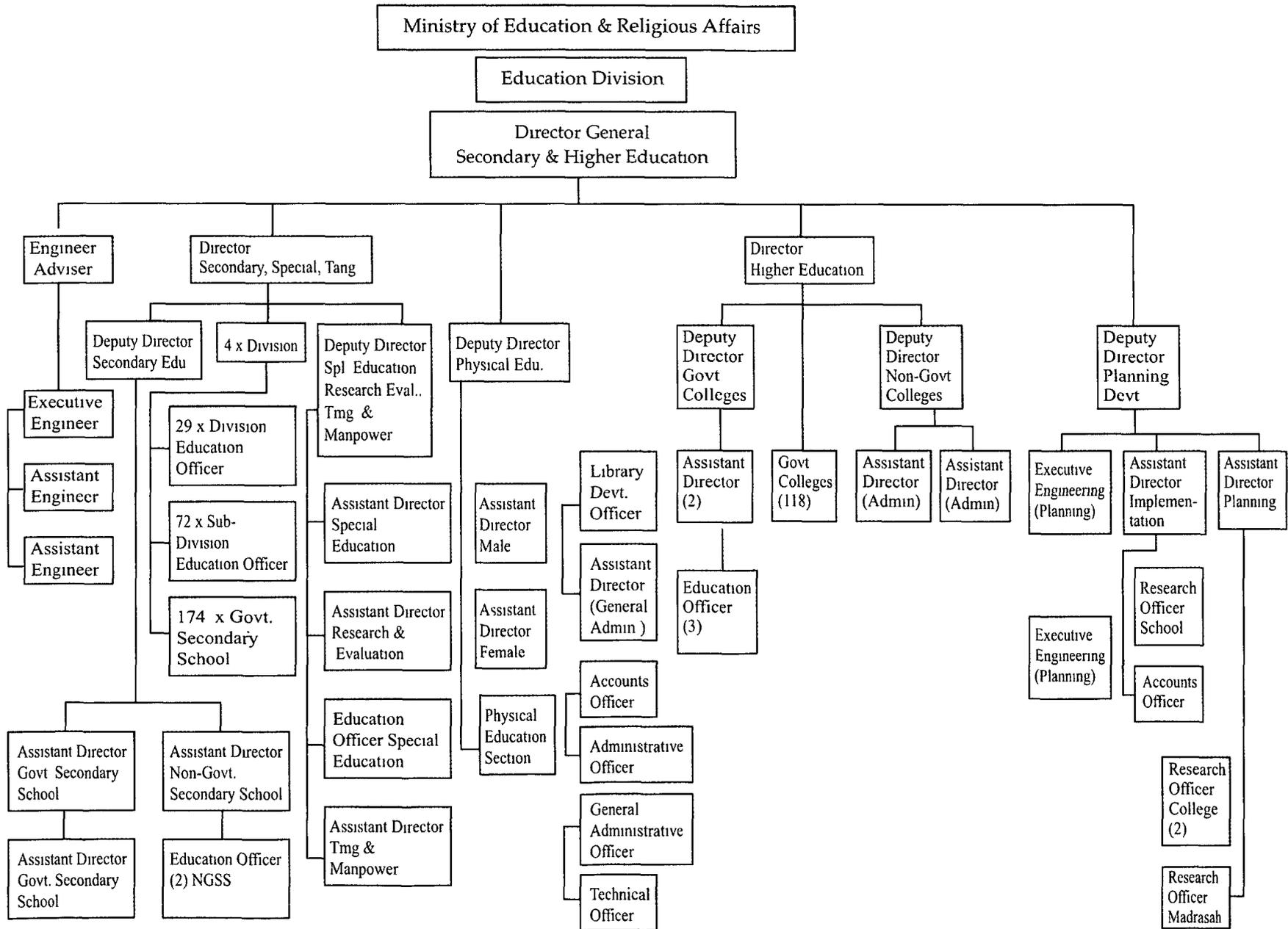
⁵⁹ *Ibid*, p 75

⁶⁰ *Ibid*, p 27.

⁶¹ AED, 1998d, p. 47.

⁶² "In both projects (SEDP and HSEP) curriculum reform was a priority. However, the curriculum was reformulated and approved just prior to implementation of these projects. Project consultants were only able to review the outcomes rather than contribute to improvement of the curriculum. Even the textbooks for the secondary level (class VI to X) were completed before the SEDP consultants arrived at post " *Ibid.*, p. 57.

Chart 3.1 : Organogram of the Management of Secondary and Higher Education



95. "The new secondary texts were considered improvement by the teachers surveyed under SEDP. However, these textbooks have been criticized for content overload, and for (i) being longer than the textbooks they replaced, (ii) uneven and uncoordinated treatment of some concepts, and (iii) not giving enough emphasis to practical work or higher competencies such as understanding, comprehension and application. The physical durability of the textbooks remains poor as they have thin covers and are printed on newsprint."⁶³

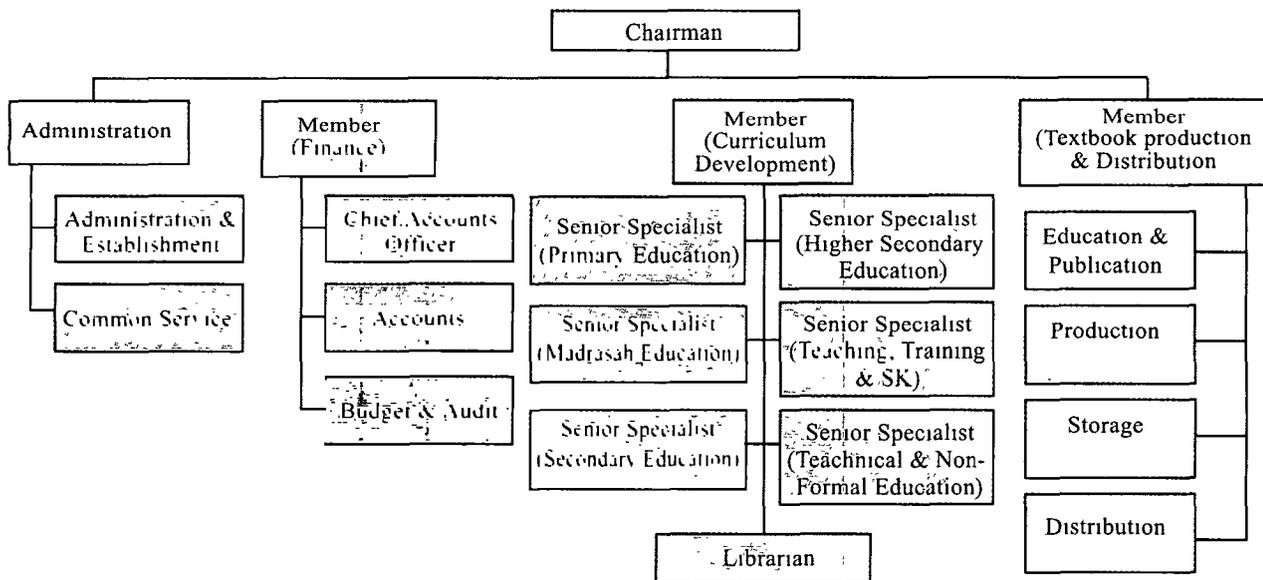
96. **BISEs:** Five regular, geographically-based Boards of Intermediate and Secondary Education exist (Dhaka, Comilla, Rajshahi, Jessore and Chittagong) as well as a separate Madrasah BISE. BISEs are mainly responsible for two functions: (1) accreditation of non-government secondary institutions, for which actual inspection is delegated largely to DEOs and Zonal Deputy Directors; and (2) administration of the SSC and HSC examinations. The BISEs commission, print and distribute the question papers, organize the administration of the examinations through Thana centers, organize the marking, process the results and produce the certificates.⁶⁴ According to the AED review, the examination system "works well administratively, but lacks technical validity." BISEs are autonomous, self-regulating and are financed completely from fee income.

97. Below the central level Bangladesh is divided into eight zones which oversee secondary and madrasah education in their regions. The eight zones are divided into 64 districts and 530 thanas, 460 of which are considered rural. Each zone is headed by a Deputy Director assisted by two to four inspectors. Districts are headed by a District Education Officer (DEO) and assisted by an Assistant District Education Officer (ADEO). There are no secondary education staff members at the thana level with the exception of female stipend project staff. Many of the sanctioned positions at each level remain unfilled.⁶⁵

98. There are three levels of supervision within the system:

- BISEs are responsible for accreditation of non-government schools. Each BISE has units responsible for affiliation, registration of institutions and students and approving governing bodies. BISEs, because of lack of inspection capacity, delegate the work to zonal inspectors and DEOs.

Chart 3.2 : Organogram of the National Curriculum and Textbook Board



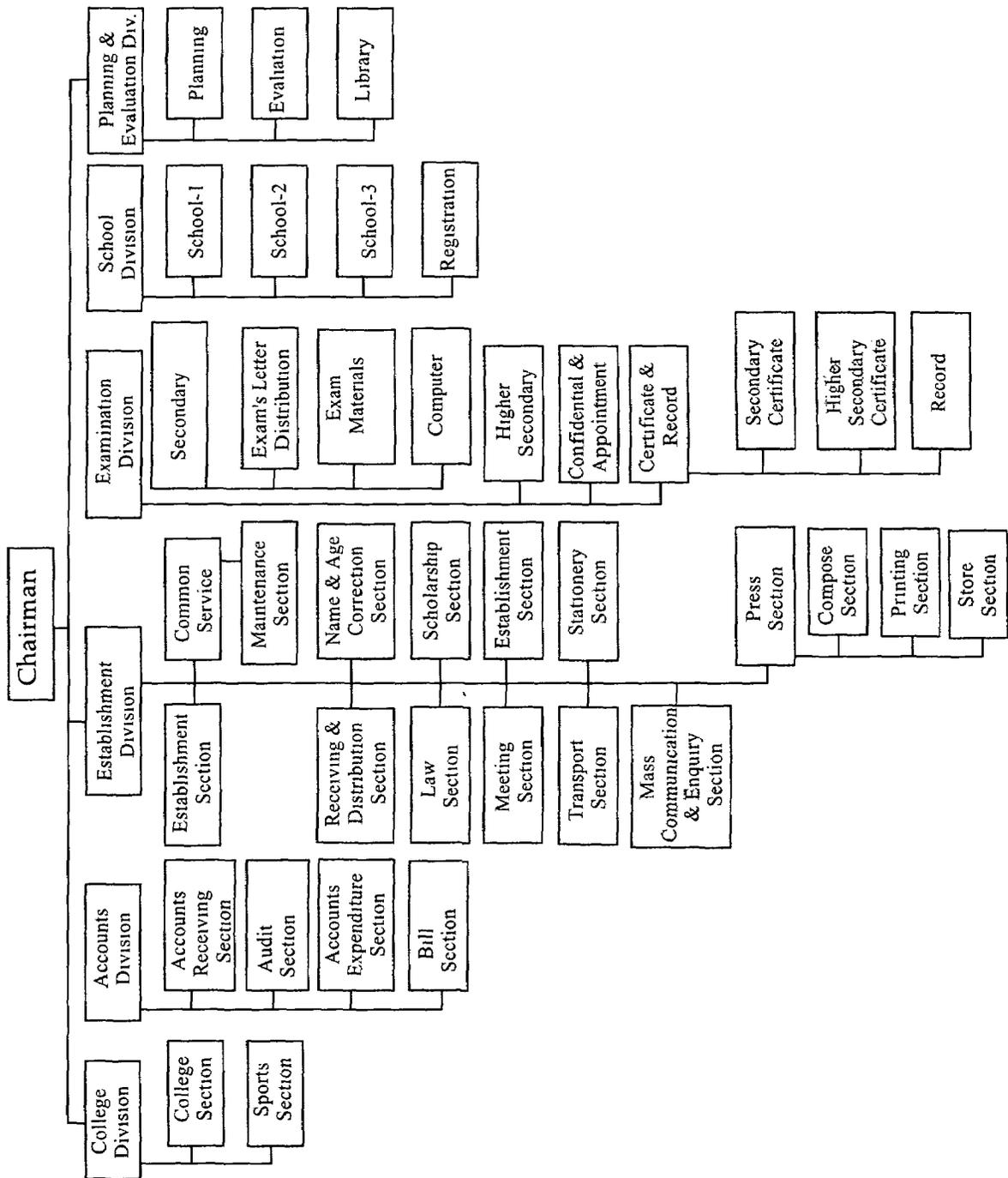
63 AED, 1998d, p. 20

64 AED, 1998g, p. 13.

65 AED, 1998e, p 5

- The Directorate of Inspection and Audit (DIA) undertakes ongoing qualitative and quantitative evaluation of non-government schools. However, it has only 12 inspectors and 12 assistant inspectors to monitor 21,000 institutions. Between 18 and 20 schools can be inspected each month given the available DIA staff, meaning a school can be inspected only once every nine or ten years.⁶⁶ Accordingly, the staff visit institutions infrequently and for short periods, concentrating on financial evaluation. If the examination pass rate is exceptionally low for the school, DIA may issue a warning, but will not advise on how to make improvements.

Chart 3.3: Organogram of Board of Intermediate and Secondary Education



- Each Zone has four inspectors who visit 10—15 schools monthly. The DEO also inspects schools. A DEO may require three years to inspect all schools in a district. School visits tend to be brief— one day or less— and ignore school quality issues.⁶⁷

99. **School-based Management.** Bangladesh has an institutionalized mechanism for community participation in its educational system. School managing committees (SMCs) and governing bodies (GBs) are required in all recognized non-government secondary schools and intermediate colleges, respectively. These bodies have a term of three years and include eight members plus the school head. The members are drawn from the schools' teachers, guardians, founders and donors, each elected by their respective constituents. These committees are expected to meet at least four times a year, but a sample survey found that many had met infrequently, hardly once a year. These bodies mobilize resources, approve the budget, control expenditures and ensure that the school is financially sound; appoint, discipline and remove teachers. However, the performance of these bodies is far from effective. "The role of the headmaster as the academic leader of a school has appeared to have been diminished by uncooperative SMCs, such as when unqualified or untrained teachers are appointed."⁶⁸ To some extent community participation in school development has been marginalized by the government policy of subsidies. This has weakened the teachers' accountability towards the community and contributed to the apparent indifference of SMCs in controlling the staffing and physical standards for better performance.⁶⁹

C. DONOR SUPPORT FOR SECONDARY EDUCATION

100. The Asian Development Bank has been the main provider of outside support for secondary education in Bangladesh. It provided support for three projects in the secondary education sub-sector. Between 1985-90 the ADB supported the Secondary Science Education Sector Project (SSESP). One of the main accomplishments of this project was establishment of in-service academic support through the secondary education and science development centers. More than 21,000 teachers were provided in-service training. The Secondary Education Development Project (SEDP) between 1994 and 1999 has provided financing for curriculum reform, instructional materials management, teacher training, civil works, a stipend program for secondary girls and training of administrators. The Higher Secondary Education Project (HSEP) between 1992 and 1998 assisted curriculum and textbook development, teacher training, management improvement and infrastructure. Both the ADB and the World Bank have been financing a Female Stipend Program (FSP) to increase the enrollment of girls in secondary education. Under the project the schools and female students share a stipend of \$16 per year. Approximately three million females receive the stipends in grades VI-X provided they meet three criteria: (a) minimum attendance, (b) minimum grades on internal examinations, and (c) abstinence from marriage. The program has been highly successful and has contributed to growth in gender parity at 1.8 per cent per year over the past three years. The European Union is financing a project to increase the employment of female teachers, the Program for Motivation, Training and Employment of Female Teachers (PROMOTE). The ADB has agreed to finance a new project in secondary education with a loan of US\$60 million focused on the recommendations of the development plan for secondary education, i.e., on examination reform, curriculum development, management improvement and information systems.

67 AED, 1998g, p. 12.

68 Government of the People's Republic of Bangladesh, United Nations Development Program, *et al* (1994), p. 85

69 *Ibid*, p. 86.

D. ANALYSIS OF THE CURRICULUM

101. The tables below analyze the learning outcomes of general science, grades VI-VIII.

102. According to this analysis the lower secondary general science curriculum "has a large number of objectives, very few of which relates to either skills or attitudes; relatively few of the cognitive objectives appears to require comprehension, still less higher abilities."⁷⁰

103. A similar analysis for the humanities curriculum for grades IX-X suggests a similar position:

Table A-9: Analysis of Science Curriculum, Grades VI-VIII in terms of:

Grades	Knowledge	Skills	Attitudes	Total
VI	142	24	1	167
VII	174	17	0	191
VIII	171	15	0	186

Source: ADB, Secondary Education Development Project Interim Report, as quoted in, AED 1998g, p 5

Table A-10: Analysis of Science Curriculum, Grades VI-VIII in terms of Bloom's Taxonomy

Grade	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation	Total
VI	126	13	21	5	2	0	167
VII	149	30	3	7	2	0	191
VIII	128	36	14	8	0	0	186

Source: Ibid

Table A-11: Analysis of Humanities Curriculum Objectives for Grades IX-X

Subjects	Knowledge	Skills	Attitudes	Total
Civics	10	0	4	14
Economics	48	5	0	53
History	50	0	1	51
Geography	13	8	2	23

Source: Ibid

Table A-12: Analysis of Humanities Curriculum Objectives (Grades IX-X) in terms of Bloom's Taxonomy

Subject	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation	Total
Civics	7	3	2	2	0	0	14
Economics	35	10	4	4	0	0	53
History	12	2	1	3	3	2	23
Geography	12	2	1	3	3	2	23

Source: Ibid.

104. With the exception of history and geography, the humanities curriculum shows a similar overemphasis on knowledge outcomes. The study concluded that "the content is rich with concepts and topics. Since the learning outcomes state knowledge of content, the tendency is to employ memorization of facts. This is a natural result of putting too much emphasis on knowledge—and little emphasis on skills and values."⁷¹

105. Similar orientations exist at the higher secondary level.

Table A-13: Analysis of HSC Science Curricula

Subject	Number of Objectives	Describing (from memory)	Mentioning (Recalling)	Explaining (from memory)	Interpreting, Deducing or predicting
Botany	204	33%	31%	26%	-
Zoology	133	23%	16%	26%	-
Chemistry	285	19%	51%	24%	6%
Physics	226	34%	12%	35%	4%

Source: HSEP document 14, as quoted in Carroll, *Ibid*, p 6.

E. EXAMINATIONS

106. Two major external examinations exist in the secondary education system, the Secondary School Certificate (SSC) examination after grade X and the Higher Secondary Certificate (HSC) after grade XII. In order to pass the examination and obtain a certificate the candidate must pass all eleven subjects. If one subject is failed, the candidate has to retake all subjects. "This restriction must be significantly depressing overall pass rates. ...The present system is inefficient, because it denies certification to significant numbers of students in the subjects in which they have achieved passing scores and forces them to study and pass all subjects a second time, when they may be weak in only one or two. .. The subject with the highest failure rate is universally reported to be English, followed by mathematics. Since there is a chronic shortage of qualified English teachers, especially in rural areas, this is perhaps not surprising."⁷²

Table A-14: SSC and HSC Examination Results, 1992-97

Year	SSC			HSC		
	Appeared	Passed	Percent Pass	Appeared	Passed	Percent Pass
1992	527.8	321.7	61.0	237.7	158.1	66.5
1993	661.9	404.4	61.1	318.2	147.4	46.3
1994	685.8	490.1	71.5	398.5	161.0	40.4
1995	765.1	560.1	73.2	468.8	217.5	46.4
1996	464.3	197.8	42.6	514.7	127.5	24.8
1997	716.9	373.8	52.1	650.3	243.0	37.4

Source: BANBEIS, 1998.

107. Several points stand out from the table above:

- A substantial growth in the number of candidates for the HSC examination, an increase of 410,000 candidates from about 240,000 in 1992 to 650,000 in 1997—an increase of 2.7 times. Many of the candidates were retaking the examination, having previously failed at least one subject.

71 SEDP, Interim Report No 11: *Comparative Analysis of Curricula of 1997 and 1995 for Civics, Economics, History and Geography (Class IX-X)*, p 52, as quoted in AED, 1998g, p 6

72 AED, 1998g, p 9

- The increase is much more modest for SSC, 189,000, an increase of about 35 percent over the 1992 level of 528,000.
- The relatively low pass rates for the HSC, which have declined substantially from the early 1990s (66.5 percent) to 37.4 percent in 1997. (The exceedingly low average of 1996—24.8 percent—is explained by political unrest that year which prevented students from completing their studies and preparation properly).
- The variance from year to year, including at SSC from 42.6 percent (96) to 73.5 percent (95) and at HSC from 24.8 percent (96) to 66.5 percent (92). This suggests that standards are not consistent from year to year.

**Table A-15 : SSC Pass Rates (Percent) by Subject, Gender, and Examination Board
(percentage who pass of those appearing for the examination)**

Board	Social Science			Science		
	Male	Female	Total	Male	Female	Total
Dhaka	36.2	36.1	36.2	66.9	65.7	66.5
Comilla	49.4	48.2	48.7	75.9	75.9	75.9
Rajshahi	37.8	41.2	39.4	69.9	73.2	70.7
Jessore	39.0	38.7	38.8	70.9	70.3	70.8
Chittagong	49.4	50.9	50.2	76.8	78.9	77.5

Source: BANBEIS

108. Important points from the table above:

- Science scores are significantly higher on average than social science, by 25 points or more.
- The rates vary by Board, from a low in social science in Dhaka of 36 percent and 66.5 percent in science, to 50 percent for social science and 77.5 for science in Chittagong. It is doubtful that the variance in actual student performance can be that great between the two regions.
- Female participants were as strong as males, scoring ahead of males in two regions for both social science and science (Rajshahi and Chittagong).

Table A-16: HSC Pass Rates (Percent) by Subject, Gender and Examination Board, 1997

Board	Science			Humanities			Commerce		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Dhaka	61.0	64.2	61.0	33.2	38.4	35.7	44.1	57.6	45.7
Comilla	57.2	57.7	57.3	31.2	36.3	33.8	44.4	54.0	45.3
Rajshahi	57.1	52.8	58.2	31.5	40.4	35.1	40.8	48.6	41.6
Jessore	49.6	49.6	49.6	27.5	32.8	29.7	36.5	44.2	37.5
Chittagong	33.7	42.0	37.9	69.5	73.2	70.4	51.5	54.4	51.9

Source: BANBEIS

109. Important points:

- Overall pass rates (except for Chittagong) were strongest in science, and weakest in the humanities.

- Variance by Boards (from totals): Chittagong is highest in Humanities and Commerce and lowest of all the Boards in Science. Chittagong is clearly an anomaly.
- The variance in pass rates was particularly wide in science (excluding the Chittagong low of 37.9 percent), ranging from 49.6 percent (Jessore) to 61.9 percent (Dhaka.)
- Females had better pass rates in all subjects in all Boards, except Rajshahi science (52.8 percent vs. 57.1 percent for males).
- Females were particularly better than their male counterparts in commerce, where the variance ranged from 3 to 13 age points.

Table A-17: Pass Rates and Rank Order of BISEs, 1992-1997

	Dhaka	Rajshahi	Jessore	Comilla	Chittagong
SSC					
1992	63.0 (1)	61.3 (3)	58.8 (4)	62.3 (2)	-
1993	59.1 (4)	60.8 (3)	63.8 (1)	61.9 (2)	-
1994	78.4 (1)	67.2 (3)	77.7 (2)	61.5 (4)	-
1995	74.4 (2)	71.9 (3)	70.7 (4)	74.9 (1)	-
1996	42.2 (3)	38.9 (5)	44.0 (4)	47.0 (1)	44.2 (2)
1997	50.0 (3)	49.2 (4)	47.4 (5)	61.2 (2)	61.4 (1)
HSC					
1996	24.3 (3)	23.5 (4)	19.3 (5)	30.8 (2)	34.5 (1)
1997	42.4 (2)	39.2 (3)	32.6 (5)	38.8 (4)	46.8 (1)
Source BANBEIS					

110. Points from the above table include:

- There is significant variation from year to year in the relative standings of different Boards. For example, for SSC Comilla has the lowest pass rate in 1994 and the highest in 1995. Jessore had the second highest pass rate in 1994 and the lowest in 1995 and 1997.⁷³
- As pointed out in the AED review (1998g), "Since each BISE assesses a substantial number of students each year, their standard and the rank order of their pass rates should be reasonably constant. That there is so much variation, given the same examination papers, suggests that marking standards are very variable from BISE to BISE and by implication, from year to year within a BISE."⁷⁴
- "There is no overall guarantee of consistency of content or of difficulty with SSC or HSC. Meaningful comparisons therefore cannot be made between SSC and HSC certificates awarded in different years or by different BISEs."⁷⁵

F. EXAMINATION PREPARATION AND ADMINISTRATION

111. "Question setters and moderators are drawn from amongst practicing classroom teachers, but they are given no guidance about the content or difficulty of the examination paper apart from the general guidelines laid down in the ordinances. Each of the five BISEs produces three sets of question papers for each examination, and the main paper and a reserve paper are chosen at random from amongst the fifteen, which are assumed to be equivalent. The variability of pass rates calls this assumption into question."⁷⁶

⁷³ *Ibid*, p 8

⁷⁴ *Ibid*

⁷⁵ *Ibid*.

⁷⁶ *Ibid*, p 13

112. "No examination specification is used to specify the type of questions to be asked. The instructions given to the question setters simply stipulate that questions should not be from outside the syllabus, that as far as possible they should be spread over the whole course, be in simple and unequivocal language, and so graded as to enable students of ordinary merit to answer questions for 50 percent of the marks, students of average merit to answer questions for the next 30 percent of the marks and students of extraordinary merit for the last 20 percent of the marks within the allotted time.⁷⁷ "Only objective (generally multiple-choice) and essay questions (short and long) are used. Structured questions (multi-part questions) are not used. Marking practices are similarly limited. Detailed marking schemes are not prepared for essay questions. Marking is impressionistic and hence unreliable."⁷⁸

113. "Marking is done by examiners selected from amongst practicing teachers. They operate under the guidance of around 15—20 head examiners in each subject. Each head examiner is responsible for 20—25 examiners. Head examiners collectively prepare marking guidelines. They do not, however, prepare a marking scheme as it is commonly understood. They then meet with their examiners to discuss the guidelines and practice-mark some scripts. Examiners mark scripts in their own homes at the rate of 250—350 scripts for each examiner. The head examiners check every script for procedural and arithmetic correctness. ...Head examiners work independently, and it is accepted that the system does not deliver reliable marking. The system therefore works well administratively, but lacks technical validity."⁷⁹

114. "A significant factor in the BISE's failure to adequately develop their technical capacity and quality review systems may be the system whereby a significant proportion of senior posts are filled through deputation from the general Government education list— usually by lecturers and officers from teacher's colleges," including 33 percent in Dhaka. "They are not likely to have much in-depth knowledge of examination issues and procedures This is inevitably a limitation."⁸⁰

115. "Another significant aspect of the Bangladeshi system of public examinations is the amount of cheating that takes place. There is clearly an extensive problem of use of unfair means by students. "Cheating on this scale therefore indicates that confidence in the fundamental fairness of the system has broken down—for two reasons (a) a sense that the examination does not fairly represent students' abilities because of intrinsic defects or (b) inequity such as variations in the quality of education received.⁸¹ "Increasing the rigor of the (examination administration) will not of itself solve the problem of cheating...Until the quality of the examination improves, so that students' abilities are more fairly represented, and the quality of the secondary schools becomes more equal, so that students from different areas have a much more equal chance to succeed, cheating is not likely to be eradicated."⁸²

116. Another consequence of the stress on public examinations is that the day-to-day assessment of students performance by teachers has been neglected. "...The responsibility of secondary schools in ensuring continuous and comprehensive internal assessment of pupils has been grossly neglected. Classroom teachers in general and an overwhelming majority of examiners and paper setters lack training in the methods and techniques of educational measurement and evaluation."⁸³

77 *Ibid.*, p 6

78 *Ibid* , p 7

79 *Ibid* , p 14

80 *Ibid*

81 *Ibid* , p 10.

82 *Ibid* , p. 10

83 Government of the People's Republic of Bangladesh, *et al* , (1994), p. 69

117. **Teachers.** "The secondary education system currently is facing an acute shortage of facilities to meet the increasing numbers of students who are graduating from primary school and wish to continue their education. There were too few secondary school classrooms and other facilities prior to (the recent) increases in students with the result that the quality of education is now even lower than it was previously. The total number of schools is inadequate and the existing non-government schools are poorly constructed and maintained. The schools lack sufficient classrooms and basic sanitary and other services, science and technology instruction facilities and materials, curricula, books and educational materials and trained teachers."⁸⁴

Table A-18: Students per Teacher by Type of School, 1991, 1998

Type of School	1991	1998
Junior Secondary	12.5	32.7
Government Secondary	30.9	32.4
Non-Government Secondary	25.8	40.2
Government- Intermediate	24.5	38.0
Non-Government Intermediate	26.8	16.1

Source: BANBEIS, Bangladesh Education Statistics, 1995, June 1996, Bangladesh Education Statistics at a Glance, 1996, as presented in AED, "Secondary Teacher Education," July 1998, p. 4.

118. The variation is striking in students per teacher. Expansion of enrollments in junior secondary schools was accomplished without a proportional increase in number of teachers, thereby increasing the number of students per teacher by 162 percent. Non-government secondary had an increase of 58 percent. Government intermediate colleges also increased substantially by 55 percent. Only non-government intermediate colleges decreased, and that by 40 percent to achieve a comparatively uneconomic ratio of 16 students per teacher.

119. Extreme variations also apply to proportion of teachers trained by ownership of school, as shown in the table below:

Table A-19: Proportion of Trained Teachers by Type of School and Gender

Type of School	No. of Teachers		No. of Trained Teachers		% of Trained Teachers	
	Total	Female	Total	Female	Total	Female
Jr. Secondary (Non-Govt.)	19,300	2,100	3,100	500	16.2	23.0
Secondary Schools (Govt.)	7,500	2,900	5,500	2,000	73.1	69.7
Secondary Schools (Non-Govt.)	130,300	17,300	46,000	6,900	35.3	40.0
Total	157,100	22,300	54,500	9,400	34.7	42.7

Trained means having received a Bachelor's in education.
 Note: Totals may not add because of rounding.
 Source: BANBEIS, 1998, Section I, Table 18

The main points from the Table A-19 are the high proportion of trained teachers in government schools (which have relatively few teachers) at 73 percent, compared with only 35 percent at non-government secondary schools and just 16 percent for junior secondary schools.

- Repetition rates were high for the final year of higher secondary education (XII) at about 11.5 percent.

121. Points from the above table:

- Progression rates were fairly constant over the period 1993-97.
- The rates decrease with ascending grades, from 94 percent between Grade VI/VII declining to 88 percent between IX and X.
- From these rates it implies that about two thirds of students who were enrolled in grade VI reached grade X four years later.

Table A-22: Number of Years in which Entrants to Grade VI completed Grade X in 1992 and in 1996 (percent of initial entrants)

Years of Secondary Schooling	1992 Year of Completion			1996 Year of Completion		
	M	F	T	M	F	T
5 years	27.2	26.5	26.9	50.2	41.1	46.2
6 years	12.7	8.2	10.8	10.7	9.1	9.8
7 years	4.2	1.8	3.2	1.3	1.2	1.3
8 years	1.0	0.4	0.7	0.2	0.2	0.2
Total Output	45.1	36.8	41.6	62.4	51.6	57.5

Source: BANBEIS, 1998, Section I, Table 13.

122. Points from the table above:

- The overall completion rate for secondary education has increased dramatically between 1992 and 1996, from 41 percent to 58 percent.
- About 10 percent of the initially enrolled students take one more year than normal (i.e., 6 years) to complete secondary education.
- Completion rates for females are 8-10 percent lower and the margin increased.

123. The transition rate from secondary to upper secondary education is shown in Table A-23

124. Grade-specific enrollments and progression rates are not produced by BANBEIS for higher secondary education. However, it has reported that the completion rate over the cycle was 62 percent (i.e., dropout was 38 percent) for the cohort completing the cycle in 1994.

125. In summary the overall progression rates for secondary education as a whole is something approximating the following:

126. It may be that the actual survival rate is higher because students who fail the examinations often repeat the examination and the eventual passing

Table A-23: Transition Rates from SSC to Grade XI

Year	No. of Secondary School Graduates (SSC) (in thousands)	Students Admitted to Grade XI (in thousands)	Admission Rate at Grade XI (percent)
1991	308.7	278.6	89.2
1992	321.7	290.3	90.2
1993	404.4	296.2	73.3
1994	490.1	341.1	69.6
1995	560.1	487.8	87.1

Source: BANBEIS, Bangladesh Education Profile, June 1997, Table 32.

Table A-24: Indicative Survival Rates in Secondary Education

Stage	Coefficient	Cumulative Survival Rate (percent)
Entrants to Grade VI	100	100
Percent Completing Grade X	60	60
Percent Passing SSC	52	31
Percent Entering Grade XI	80	25
Percent Completing Grade XII	62	15
Percent Passing HSC	37	6

Source: Bank staff estimates based on BANBEIS data.

grades VI-X, and 40 percent for grades XI-XII. Repetition is around 5 percent per year and attendance rates for secondary school students are only about 60 percent.⁸⁶ This and low pass rates on the SSC and HSC mean that outputs are extremely low. In 1997 only 374,000 students received the SSC, equivalent to about 11 percent of the age 15 population; 243,000 students received the HSC, equivalent to about 8 percent of the age 17 population.

rates are higher. Assuming that a third of those who fail the SSC and HSC initially retake the examination and eventually pass,⁸⁵ the final Grade XII output increases to 20 percent and the proportion of original entrants passing the HSC to 12 percent. Clearly the completion and success rates are low either under the coefficients above or the assumed higher eventual pass rates.

127. Table A-23 shows the high rates of attrition in the secondary system.

Dropout rates are about 40 percent for

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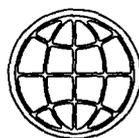
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