EDUCATION SECTOR PLAN (ESP)
FOR BANGLADESH
FISCAL YEARS 2020/21 – 2024/25

10 December 2020

ACRONYMS

A2I	Access to Information
ADB	Asian Development Bank
ADP	Annual Development Programme
ADPEO	Assistant District Primary Education Officer
AP	Action Plan
ASB	Asiatic Society of Bangladesh
ASC	Annual School Census
ASPR	Annual Sector Performance Report
BAC	Bangladesh Accreditation Council
BANBEIS	Bangladesh Bureau of Educational Information & Statistics
BBS	Bangladesh Bureau of Statistics
BCC	Bangladesh Computer Council
BCS	Bangladesh Civil Service
BCSIR	Bangladesh Council of Scientific and Industrial Research
BdREN	Bangladesh Research and Education Network
BDT	Bangladesh Taka
BEd	Bachelor of Education
BISE	Board of Intermediate and Secondary Education
BLP	Basic Literacy Project
BMEB	Bangladesh Madrasah Education Board
BMTTI	Bangladesh Madrasah Teacher Training Institute
BOU	Bangladesh Open University
BQF	Bangladesh Qualification Framework
BTEB	Bangladesh Technical Education Board
CAMPE	Campaign for Popular Education
CapED	Capacity Development for Education
CBLP	Community Based Learning Point
CHT	Chittagong Hill Tracts
CinEd	Certificate in Education
CLC	Community Learning Centre
COVID-19	Corona Virus Disease
CPD	Continuous Professional Development
CSO	Civil Society Organization
DME	Directorate of Madrasah Education
DPE	Directorate of Primary Education
DPEd	Diploma in Primary Education
DPEO	District Primary Education Officer
DPP	Development Project Proforma
DSHE	Directorate of Secondary & Higher Education
DSS	Department of Social Services
DTE	Directorate of Technical Education
DYD	Directorate for Youth Development
ECCD	Early Childhood Care and Development
ECD	Early Childhood Development
EFA	Education for ALL
EIN	Education Institute Number
ELCG	Education Local Consultative Group
ELDS	Early Learning and Development Standards

EMIS	Education Management Information System
ESA	Education Sector Analysis
ESP	Education Sector Plan
ESPDG	Education Sector Plan Development Grant
EU	European Union
FD	Finance Division
FDMN	Forcibly Displaced Myanmar National
FFE	Food for Education
FSP	Female Stipend Project
FY	Fiscal Year
FYP	Five Year Plan
4IR	Fourth Industrial Revolution
GDP	Gross Domestic Product
GED	General Economic Division
GoB	Government of Bangladesh
GO	Government Organization
GPA	Grade Point Average
GPE	Global Partnership for Education
GPS	Government Primary School
HDC	Hill District Council
HEMIS	Higher Education Management Information System
HSC	Higher Secondary Certificate
HSP	Harmonized Stipend Program
HSTTI	Higher Secondary Teacher Training Institute
HT	Head Teacher
iBAS	Integrated Budget Accounting System
ICT	Information and Communication Technology
ISC	Industry Skills Council
IT	Information Technology
ITP	Internet-based Teachers Portal
IFPRI	International Food Policy Research Institute
ILO	International LaborOrganization
JDC	Junior Dakhil Certificate
JSC	Junior School Certificate
KG	Kindergarten
LASI	Learning Assessment of Secondary Institutes
LCFA	Learning Competency Framework and Approach
LGED	Local Government Engineering Department
LIP	Local Implementing Partner
LLL	Lifelong Learning
LMIC	Lower Middle-Income Country
LFS	Labor Force Survey
M&E	Monitoring and Evaluation
MEW	Monitoring and Evaluation Wing
MEMIS	Madrasah Educational Management and Information System
MHM	Menstrual Hygiene Management
MLE	Multi-lingual Education
MICS	Multiple Indicators Cluster Survey
MIS	Management Information System
MoA	Ministry of Agriculture

MoC	Ministry of Commerce
MoCHTA	Ministry of Chittagong Hill Tracts
MoE	Ministry of Education
MoEWOE	Ministry of Expatriates Welfare and Overseas Employment
MoInd	Ministry of Industries
MoLE	Ministry of Labor and Employment
MoPME	Ministry of Primary and Mass Education
MoRA	Ministry of Religious Affairs
MoST	Ministry of Science and Technology
MoSW	Ministry of Social Welfare
MoWCA	Ministry of Women and Children Affairs
MoYS	Ministry of Youth and Sports
MPO	Monthly Pay Order
NAEM	National Academy for Education Management
NAP	National Action Plan
NAPE	National Academy for Primary Education
NCTB	National Curriculum and Textbook Board
NEA	National Education Accounts
NEET	Not in Education, Employment or Training
NEP	National Education Policy
NER	Net Enrolment Rate
NFE	Non-Formal Education
NFEDP	Non-Formal Education Development Programme
NFPE	Non-formal Primary Education
NFSSP	Nationwide Female Secondary Stipend Program
NGO	Non-Governmental Organization
NGPS	Non-Government Primary School
NIF	National Indicator Framework
NNPS	Newly Nationalized Primary School
NSA	National Student Assessment
NSDES	National Strategy for Development of Education Statistics
NRC	National Research Council
NSDA	National Skills Development Authority
NSDES	National Strategy for Development of Education Statistics
NSDP	National Skills Development Policy
NTF	National Task Force
NTRCA	Non-Govt Teachers' Registration and Certification Authority
NTSC	National Teaching Service Corps
NTVQ	National Technical and Vocational Qualification
NTVQF	National Technical and Vocational Qualification Framework
NU	National University
O&M	Operation and Management
OECD	Organization of Economic Co-operation and Development
OOSC	Out-of-school children
Ofsted	Office of Standards in Education
PECE	Primary Education Completion Examination
PEDP	Primary Education Development Programme
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PPE	Pre-primary Education

PPP	Public Private Partnership
PTI	Primary Training Institute
PTR	Pupil Teacher Ratio
ROSC	Reaching Out of School Children Project
RPL	Recognition of Prior Learning
SAPET	Sector Action Plan for Education and Technology
SCR	Student Class Ratio
SDG	Sustainable Development Goal
SEDP	Secondary Education Development Program
SEN	Special Educational Needs
SESIP	Secondary Education Sector Investment Project
SHED	Secondary and Higher Education Division
SID	Statistics and Information Division
SLIP	School Level Improvement Plan
SMC	School Management Committee
SPHE	Strategic Plan for Higher Education
SOP	Standard Operating Provider
SSC	Secondary School Certificate
STDP	Secondary Teacher Development Policy
STR	Student Teacher Ratio
SWAp	Sector Wide Approach
TA	Technical Assistance
TEB	Technical Education Board
TIMSS	Trends in International Mathematics and Science Study
TMED	Technical and Madrasah Education Division
TQI	Teacher Quality Improvement in Secondary Education
TSC	Technical School and College
TSP	Technical Support Partner
TVET	Technical and Vocational Education and Training
UDC	Union Digital Center
UDL	University Digital Library
UGC	University Grants Commission
UIS	UNESCO Institute for Statistics
UN	United Nations
UNESCO	UN Educational, Scientific and Cultural Organization
UNICEF	UN Children's Fund
UPEP	Upazila Primary Education Plan
URC	Upazila Resource Center
VTI	Vocational Training Institute
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme

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1. National Development and Education Context

Improvement in access to education in Bangladesh has contributed to progress in social and economic indicators. There is a clear association between the level of education and poverty as indicated by poverty status and literacy rate. The extreme poverty rate was 15.8 percent and the poverty rate 29.5 percent among the illiterate population compared to 7.1 percent and 15.1 percent respectively among the literate population, according to Bangladesh Bureau of Statistics (BBS) Household Income and Expenditure Survey 2016 (BBS, 2016). Despite overall progress in social and economic indicators, there are numerous hurdles to be overcome to attain nationally set development objectives, fulfilling the commitments for the Sustainable Development Goals (SDG) 2030, realizing the growth potential of the economy and utilizing the productive potential of the country's youthful workforce.

Creating sufficient employment for the youthful workforce of the country is one of the most critical concerns to be addressed, particularly in the context of the changing nature of jobs and employment driven by new technologies. A special focus on the education system and enhancing relevant skills and competencies of people has become an imperative. By one estimate, among 28 countries of the Asia-Pacific region, Bangladesh has the second largest tertiary level educated unemployment rate (ILO, 2018). The abundant youthful population offers as much the potential of the demographic dividend as it holds up the Damocles' sword of a potential calamity, unless the opportunities for quality education and effective skills formation for youth can be created.

A key measure of how the education and skills development sub-sectors of the education system is doing is the situation of employment of workers in productive jobs with at least a living wage. The national average unemployment rate as of 2016 was 4.2 percent, with the rate higher in urban areas (6.7 percent) compared to rural areas (3.1 percent) (BBS LFS, 2016). These data also revealed that the unemployment rate among jobseekers increased with the level of education.

There are two sides to the skills and jobs equation, and it is necessary to look at both sides – the quality of education/training and the nature of the employment market -- to understand the link. There are other issues, such as economic investment policies that lead to jobless growth, employment market management, social and cultural attitudes about work, the changing nature of work, different attitudes about and opportunities for women and men, and access to information about employment opportunities. The context and complexity of how education and training lead to skill formation and how skills turn into productive and decent work opportunities have to be recognized. Even if the mismatch, or skills gap, hypothesis is given prominence, unpacking this relationship and finding solutions is at the heart of change and reform, which need to be visualized and implemented in the education system and its various sub-systems (Ahmed, 2016). The continuing struggle is to build an inclusive system of education with quality and equity that serves the vision and aspirations of the nation.

It is appropriate to note that the unexpected corona virus disease (COVID-19) pandemic and its health, social and economic impact have brought to the fore the critical importance of emergency preparedness and response capacity and their educational implications. Media reports show that Bangladesh's manufacturing and the services sectors have suffered a setback due to the crisis in terms of both employment and income. The Gross Domestic Product (GDP)growth rate will thus decline with corresponding job and income loss. The rate of poverty reduction will stall, and poverty might increase due to householdspreviously above the poverty line now falling below the

line. This will have long-term impact on educational outcomes of the children of these 'new poor' as many of them may not return to or drop out from school. Further digitization of educational contents and system up-gradation, the importance of which has been painfully learned during the pandemic,needs to be taken forward. Investments must be made to lay more robust digital infrastructure in the rural areas for equipping the educational institutions with broadband access and training teachers to use technology. Beyond the emergency dimension of the crisis, its broader and longer-termimpact and the role of education in building resilience of people to cope with expected and unexpected crises also must be considered. This is discussed further in chapter 4 under cross-cutting issues.

1.1 Education Sector Analysis (ESA)

An Education Sector Analysis (ESA) for Bangladesh was completed in early 2020 (MoPME, 2020). The overarching goal of the ESA was to create the basis for a comprehensive Education Sector Plan (ESP), which will coincide with the 8th Five Year Plan (FYP) of the Government of Bangladesh (GoB) and guide initiatives taken at national and sub-national levels to attain SDG4. Core components of the approved ESA are given below.

Figure 1.1: Core components of ESA for Bangladesh

Source: Education Sector Analysis (ESA) for Bangladesh (MoPME, 2020)

Policy Environment: Need for Re-Examination

The ESA has presented the key elements of the National Education Policy (NEP) 2010, the overall policy statement that is intended to guide educational development, as well as highlights of key documents related to policies in major sub-sectors. The latter includes the Non-formal Education Policy (2006) and the Non-formal Education Act of 2014, legislation for compulsory primary education of 1990, the evolution of primary education towards a "sector-wide" approach (SWAp), quality improvement strategies in secondary education, the shift towards a sub-sector programme in secondary, and the National Skill Development Policy 2011 and other related documents.

The ESA suggests that the organizational structure and governance mechanisms of the education system that exist now need to be looked at from the point of view of how these fit the new

conditions and needs of the system. It should be determined whether they fit the broader purposes of the skills and capacity development of people and the more specific targets, objectives and priorities of the sub-sectors of the education system.

Looking to the future, governance and system management issues need to be re-examined. Cases in point are school education management split under two ministries, growth of the parallel madrasah system of education (a post-1975 phenomenon), demand for universalization of education up to secondary and higher secondary levels (rather than only primary), reshaping education with the lifelong learning perspective and new skill development needs for work in the future. These concerns deserve due consideration as the plan is formulated.

Education Sub-sector Issues Identified

The ESA has presented the current overall status of the sub-sectors of education: pre-primary and primary, secondary including higher secondary, technical and vocational education and training (TVET), non-formal including adult education, and tertiary education. Key aspects analyzed were: 1) access (enrollment and number of institutions), 2) internal efficiency (cycle completion, dropout and repetition rates) and 3) quality (quality inputs indicated by teacher numbers and characteristics and learning outcomes indicated by available assessment data).

A review of available data and information was undertaken for the preparation of the ESA and this was supplemented by a further review in preparing the ESP. The reference documents for both the ESA and ESP are listed in the Bibliography (Annex 1.1). The review has revealed key issues for the education system and the education sub-sectors in Bangladesh. These include:

1. Significant differences between services available in rural and urban areas and by income status of households.
2. Inadequacy in number and quality of skilled and professionally motivated teachers.
3. Heavy reliance on summative assessment and high-stake public examinations with their effects on teaching-learning practices.
4. Nature of skills and competencies achieved by students and weaknesses in the transition from education to work resulting in high unemployment and under-employment among the youth.
5. Challenges of coordinating and directing activities under many different auspices towards addressing the persistent skills gaps.
6. The system being inherently inequitable for aspirants of higher education from the lower socio-economic strata.
7. The distribution of curriculum offerings and the absence of planning and strategies for improving market relevance.
8. Low public investment in education and expansion of the system resulting in poor quality outcomes.

Sub-sector wise key issues and challenges are further discussed in chapter 3 and the cross-cutting issues in chapter 4.

Cross-cutting Issues Mapped

The main cross-cutting issues, which present special challenges as well as opportunities for the sub-sectors and for the sector, have been mapped in the ESA. These include teacher numbers and quality as well as re-imagining the education workforce in the 21st century; climate change and

natural and man-made emergencies including COVID-19 and the situation of the Forcibly Displaced Myanmar Nationals (FDMN), commonly known as Rohingyas; ICT for and in education; implications of 21st century skills and the Fourth Industrial Revolution (4IR); access to clean water and sanitation and girls' menstrual hygiene provision; children with special educational needs; incentives – stipends, mid-day meal and free books; and assessment of student learning and system performance including the SDG National Indicator Framework and monitoring.

Education Finance

The ESA has analyzed available data on education public expenditure, contributions of households in education expenses in the country, variations in education expenses by household income quintiles and adequacy and effectivenessof education resources. It infers that better education finance data are needed that provide information comprehensively and that identify incidences of who pays and who benefits. Solid methodological standards are necessary to ensure their consistency and quality. The National Education Accounts (NEA) methodology is one such approach that may help provide these standards.

The National Budget for Fiscal Year (FY) 2020-21, prepared in a very challenging setting of the pandemic-induced economic slowdown, has focused on safeguarding the economy, protecting the extreme poor and the vulnerable and promoting recovery and resilience of society (Rahman, 2020).

Despite this overwhelming focus on economic recovery, the proposed budget still has followed the trend of having Education and Technology as the highest allocation receiving sector. This sector has received 15.1 percent of the allocation. The total budget for the education sector in FY 2020/21 stands to be BDT 66,401 crore[1]. This is almost 9 percent higher than the amount allocated to this sector in the previous year. The Education and Technology sector allocation is equivalent to 2.7 percent of the GDP estimated for the fiscal year. While the budget for primary education sub-sector has increased slightly from previous fiscal year, from Bangladesh Taka (BDT) 24,040 crore to BDT 24,940 crore; the budget for the secondary and tertiary education sub-sectors combined went through significant increase. The combined budget for these two sub-sectors increased from BDT 29,624 crore to BDT 33,117 crore, representing a 12 percent increase from FY 2019/2020 to FY 2020/21.

Public expenditure in education still hovers around 2 percent of GDP and during recent fiscal years its share in the total national budget has been between 13 to 16 percent.Recommended international standards for these ratios are 6 percent and 20 percent respectively, which are seen as necessary to support the desired level of human resource development. More importantly, the priorities in allocations have followed the trend of spending on infrastructure projects and less on quality-enhancing soft measures. A higher priority, for example, could be on expanding and piloting innovative distance learning projects with the looming challenges of the COVID-19 pandemic. The financial scenario for education and the ESP requirements are discussed further in chapter 7.

There are concerns often expressed about resource absorption capacity of the education sector. Under spending has resulted from multiple factors including 'red-tape' delays, inappropriate

[1] One crore equals ten million

planning and lack of human resources. Policy level attention is needed to remove structural impediments in decision-making and raising institutional capacities in implementing institutions.

Need for Effective Education Governance

Effective governance is essential to achieve successful outcomes. There are different means of integrating key facets of governance into the development agenda in general and the education agenda in particular. A combination of both is needed to arrive at better decisions, for the government to meet its responsibilities and legal obligations and, most importantly, to create an ethical environment for governance. The ESA has suggested that specific strategies, objectives and targets for addressing major education governance issues are not necessarily expressed in a comprehensive way in policy statements and development plans, such as the 7th FYP (Five Year Plan). The new 8th FYP (FYs 2020/21-2024/25), now under preparation, can be an opportunity to articulate goals and objectives for education and skills development as well as to consider the related governance issues in a systematic and purposeful way. Reconciling and aligning the ESP and the 8th FYP, with the overlapping time horizon, will require policy-level action.

The governance and system management issues are further discussed in chapter 5. National education planning and ESP implementation arrangements are explained in chapter6.

1.2 RATIONALE FOR THE ESP

At its inception Bangladesh had virtually no resources. Yet it launched its development journey with a strong national aspiration of ensuring education for all. The struggle for independence led by its founding father Bangabandhu Sheikh Mujibur Rahman was deeply rooted in inclusivity with the right to education as its centerpiece. It was therefore quite natural that, when he began to lead the country to consolidate socio-economic prosperity out of ashes of the Liberation war, the goal of achieving quality education for all was duly prioritized. He even committed four percentages of GDP for educational expenditures in those difficult days of resource deficit. While addressing the first Literary Conference of Bangladesh back in 1974 he said,*"I am always saying that we need strong golden people to build a golden Bengal. These golden people will neither come down from the sky nor grow out of the land.If we cannot get rid of the curse of illiteracy and if we cannot educate everyone, we will not have golden people."*

It was in this context of his strong commitment for quality universal education that an education commission led by Dr. Qudrat-e-Khuda was initiated in 1972 to set the long-term vision of the education sector for the war-ravaged country. The commission worked hard and submitted a comprehensive report to the government in 1974. The report identified education as a "weapon for social transformation". It further recommended that the education system must be used as a medium for the utilization of particular creative skills for the reconstruction of our individual and social lives.Simultaneously, it argued for arranging "the development of vocational skills required for the creation of a democratic and progressive society."

Clearly, Bangladesh enjoyed a strong political will to ensure quality education for all from the very beginning. Despite some ups and downs in between, the level of that political will has been strengthened by the current government under the leadership of Honorable Prime Minister Sheikh Hasina who has been following the footsteps of the Father of the Nation in all areas including education. Besides the Education Policy 2010, the current government under the same leadership of the Premier Sheikh Hasina has been undertaking a number of homegrown programmes to further improve access to education with core goals including access and equity,

quality and relevance, and governance and management in addition to addressing emerging challenges of how to cope with emergencies and climate change. The government has been pursuing the goals, committed to in its Election Manifesto 2018, which aimed at improving the lives and livelihoods of the people. To achieve these goals it has been improving its budgetary commitment for the education sector as a whole and technical components in particular. It has also paid attention to the efficient utilization of the related allocations while also paying focused attention to the quality and inclusion imperatives.

Bangladesh is also committed to the 2030 Sustainable Development Goals (SDG) agenda including SDG4, the overarching education goal. This goal commits the country to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." The country -- with two ministries for the education sector, namely, the Ministry of Primary and Mass Education (MoPME) and the Ministry of Education (MoE) -- has one of the largest centralized education systems in the world with roughly 40 million students, 200,000 educational institutions and a million teachers and other education workforce members. School education, pre-primary to pre-tertiary, divided under the jurisdiction of the two ministries in a centralized government structure, presents special governance and management challenges. This is particularly so as the country attempts to move towards greater coherence and to set priorities in education and human development in alignment with the SDG targets and development aspirations for an upper middle income and ultimately a developed country.

Structural change in the economy as the country moves to the upper middle-income status -- with employment and GDP share shifting from farming and agriculture to industry, manufacturing and services -- is changing the composition of employment. This change has significant implications for education and skills development. There is no debate on the proposition that the education sector requires significant reforms. The ability and willingness of the government and non-government actors to invest in education is increasing along with economic growth. These investments must be planned in a manner that responds to the needs and aspirations of society and individuals. This requires a good understanding and clear articulation of the current challenges.

The National Education Policy was adopted in 2010 (MoE, 2010) which indicated the overall objectives and strategies for educational development. There also have been various development programmes and plans for sub-sectors of education such as primary education, secondary education, non-formal education, technical and vocational education and training, and tertiary education.

The Seventh Five Year Plan (7FYP) 2016-2020 (GED, 2015) incorporates some of the education reform objectives and indicates directions for capacity development for education (GED, 2016). The 8thFive Year Plan (8FYP) for the period 2021-2025 is also in preparation. Meanwhile, in 2015, the SDG2030 agenda, including the education priorities of SDG4, have been adopted globally in which Bangladesh is a party. The Bangladesh government has indicated its commitment to the SDG agenda and has set up a high level coordination mechanism to work on aligning the SDG goals and targets and the national development plans and programmes (including the five-year plans and the sectoral programmes).

Education sub-sector programmes have been underway, since the 1990s in primary education and more recently in secondary education. In addition to the services provided by MoE and MoPME, other ministries and agencies, such asthe Social Welfare, Religious Affairs, Defense,

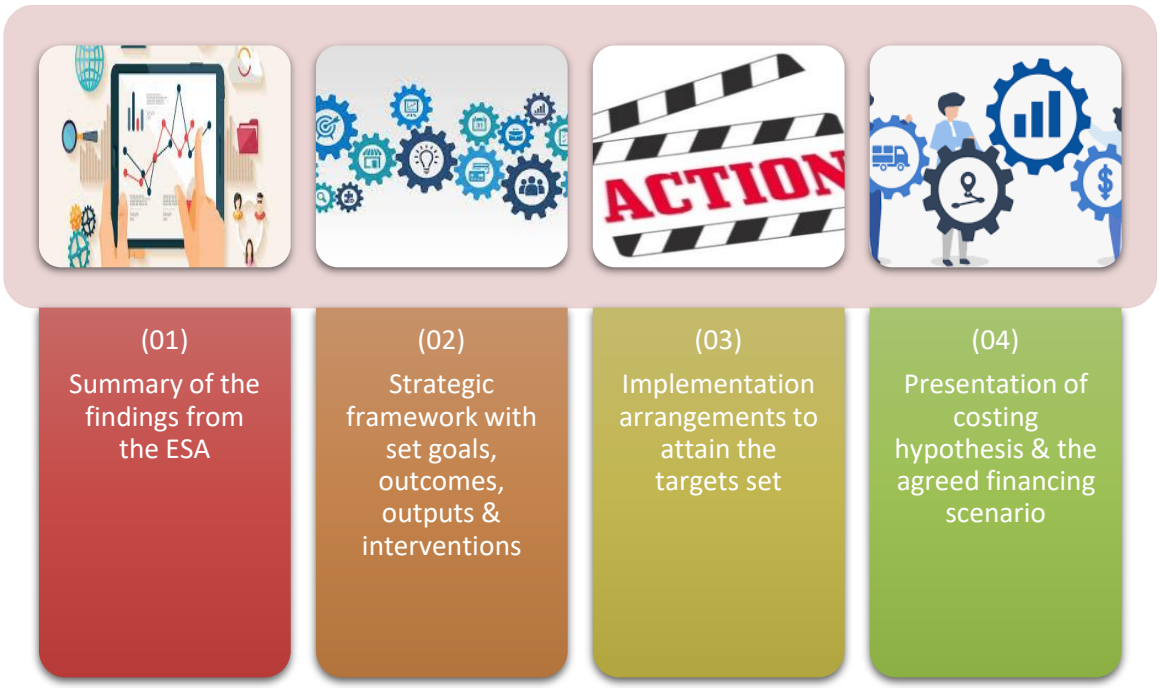
Health, Women and Children Affairs, Agriculture, and Labour Ministries, offer education, skills training and professional development. Thousands of non-governmental organizations (NGOs), community-based organizations (CBOs) and international organizations are offering education and skills training services including life skills and livelihood-based literacy programmes for disadvantaged children, youth and adults. The diverse education activities managed by various entities raise the question of coordination, coherence and linkages among the activities to serve learning needs and capacity building needs of people.

This necessitates the formulation of an Education Sector Plan (ESP) for Bangladesh, which is informed by the challenges and opportunities of each of the sub-sectors of education, and which will contribute significantly to better planning, coordination and implementation of the education Programmes in alignment with national aspirations. In this context, this ESP has been prepared and is expected to guide educational development of Bangladesh over the medium-term (2020/21 to 2024/5).

The ESP was prepared under the leadership of the MoPME and MoE through a consultative process, involving a wide range of stakeholders including civil society. A list of virtual consultation meetings, focus group discussions, interviews and workshops held as part of the preparation process is given in Annex 1.2. The A brief summary of consultation meetings with civil society is given in Annex 1.3.

The core components of the ESP are given below:

Figure 1.2: Core components of the Education Sector Plan (ESP) for Bangladesh



This first chapter briefly presents the national development and education context for Bangladesh along with a rationale for preparation of a comprehensive ESP based on the approved ESA.

The strategic framework of the plan with the overall goal, sub-goals and outcomes, and the logic of the outputs and interventions are discussed in the secondchapter.

The third chapter is dedicated to the presentation of sub-sector overviews (based on the ESA and other relevant information), key challenges, strategies to overcome the challenges and targets to be achieved within the given timeframe (from FY 2020/21 to 2024/25).

Cross-sectoral reform needs and strategies are discussed in the fourth chapter. These strategies, instead of being focused on a sub-sector (e.g. primary or secondary), relate to the system as a whole and multiple sub-sectors.

The fifth chapter discusses the governance of the education sector and sub-sector. It highlights some of the governance challenges and issues that need to be addressed for the effective implementation of the ESP and the SDG4 agenda.

The sixth chapteris dedicated to presentation of suitable implementation arrangements and mechanisms for interventions to attain the set targets. It covers sub-sector interventions as well as cross-sectoral ones including governance reforms.

The cost and finance for the implementations proposed are discussed in the seventh chapter. It covers both sub-sector specific and cross-sectoral expenditures. It also includes a costing simulation exercise to inform the policy makers about possible outcomes of varying investments in education.

Finally, a results framework is presented in chapter eight with main outcomes and outputs, verifiable indicators, and key responsible actorsidentifiedso that implementation of the plan can be tracked through the ESP period. The risk factors, means of mitigation and creating enabling conditions are also included in the results framework.

2. STRATEGIC FRAMEWORK OF THE PLAN

Development of the Education Sector Plan is guided by an overall vision. This refers to overall socio-economic development aspirations which are supported by holistic education planning combining all sub-sectors, including lifelong learning and non-formal education. Soundness and relevance of such a plan must come from establishing the connection of the plan priorities and strategies with the main issues identified in the sector analysis. This ESP intends to cover responses to all major issues from the ESA. All plan priorities presented are grounded in the ESA findings.This chapter first discusses the process of development of the Policy Matrix and its relevance to the overall strategic framework of the ESP. This is followed by presentation of the overarching goal of the ESP and the corresponding sub-goals. Finally, further elaboration of the Policy Matrix is presented.

2.1 THE POLICY MATRIX LAYOUT

Table 2-1 : Layout of the Policy Matrix

Overarching Goal of the Education Sector				
Sub-goals	***1. Access & Equity***	***2. Quality & Relevance***	***Governance & Management***	**Sub-sectors/ Cross Sectors**
Outcomes	1.1 …	2.1. …	3.1 …	
Outputs	1.1.1 …	2.1.1 …	3.1.1 ….	
Targets Activities	1.1.1.1 …	2.1.1.1 …	3.1.1.1 ….	
M & E Indicators/KPIs				

It was recognized by all concerned that the ESA findings needed to be endorsed by the education stakeholders, especially the government, in order for it to serve as a credible basis for ESP formulation. A special consultative meeting was organized on 8-9 December, 2019, of government and non-government stakeholders to discuss the initial ESA draft and the proposed ESP where some 35 participants joined in the consultation representing the Ministry of Education (MoE) and the Ministry of Primary and Mass Education (MoPME), research institutions, non-formal education institutions, development partners, non-government organizations (NGOs) and civil society organizations (CSOs). The participants agreed on the draft Policy Matrix layout as in Table 2.1 with the identified issues that must be addressed in the ESP in respect of three major areas of concern: (a) Access and Equity, (b) Quality and Relevance, and (c) Governance and System Management. The three major areas, which may be described as the pillars of the plan, were derived from ESA consultations, analysis and conclusions.

2.2. GOAL AND SUB-GOALS OF THE ESP

Based on the contents of the ESA (which were reinforced through comments and feedback from government and non-government stakeholders), the overarching goal of the ESP has been set to be:

"To contribute to achieving the SDG4 goal of equitable, accessible and quality education towards building a sustainable and prosperous society and promoting lifelong learning for all, in line with the objective of Bangladesh becoming a developed country by 2041."

This goal, being an overarching one, requires to be broken down into attainable sub-goals. To formulate the sub-goals the key areas of concern have been taken into consideration. Attainment of all the sub-goals will ensure attainment of the overarching goal itself. The sub-goals in turn contribute to achieving the overall goal. The three sub-goals complement and reinforce each other and need to be essential components of holistic educational development. For example, ensuring equitable access to education requires reforms related to enhanced system management and quality enhancement without which equitable access could limit the impact of quality. The following are the sub-goals guiding the development of the Policy Matrix:

1. **Access and Equity:** Ensure compulsory basic education and increase the scope for further education for all irrespective of gender, age, religion, ethnicity and disadvantaged groups.
2. **Quality and Relevance:** Learners at all levels acquire relevant knowledge, skills, attitudes and values to live a healthy life, in harmony among people and with nature, and to compete in the national and international job market.
3. **Governance and System Management:** Strengthen result-based management systems for effective implementation of the ESP, the 8thFive Year Plan and SDG4 the Strategic Framework with increased budget allocations and improved human resource planning and management.

2.3 ELABORATION OF THE POLICY MATRIX

Based on the Policy Matrix goal and sub-goals, and through consultation with the Education Local Consultative Group(ELCG) working group, a total of 12 outcomes were formulated for the three sub-goals. Of them, three are for sub-goal 1 (access and equity), four are for sub-goal 2 (quality and relevance), and the remaining five are for sub-goal 3 (governance and system management).

A total of 20 outputs against the 12 outcomes have been identified. Three outputs are expected under the three outcomes for sub-goal 1, eight outputs under the four outcomes for sub-goal 2 and nine outputs under four outcomes for sub-goal 3. Outputs correspond to the results to be achieved to attain the respective outcome. In elaborating the details of the sub-sector plans, the outcomes and relevant outputs may be broken down further or combined in a different way; thus the related numbers of outcomes and outputs may vary.

The outcomes and outputs are detailed in Annex 2.1 (ESP Policy Matrix Elaboration).The outcomes and outputs are broad ones for the entire education sector as a whole and its three major sub-goals. For clarity and granularity these are broken down across all sub-sectors of education, ranging from pre-primary to tertiary (including non-formal education and TVET as well as cross-cutting issues). In chapter 3, the outcomes are re-stated against each of these sub-sectors. Then for each sub-sector the corresponding outputs, quantifiable targets and activities are proposed to be undertaken to attain the respective outputs and targets.

3. SUB-SECTOR STRATEGIES

There are eight major sub-sectors within the Bangladesh education system encompassing both formal and non-formal education. Each of the sub-sectors makes a unique contribution to the fulfillment of the overarching goal and sub-goals of the ESP. In accordance with the Policy Matrix, in chapter 3 the same sub-goals, namely access and equity, quality and relevance and governance and system management, are set for each of the sub-sectors. Whereas the Policy Matrix presents outcomes and outputs under the three sub-goals as high order policy objectives, in chapter 3specific outcomes are presented for each sub-sector, signifying the interconnection of the outcomes related to the three sub-goals. Outputs, targets and major activities related to the three sub-goals are then presented for each of the eight sub-sectors.

Each sub-sector is presented following a common outline. After a general introduction highlighting the current status, overall challenges in the sub-sector, drawing on ESA, and the outcomes envisaged for the sub-sector, there are sections on each of the sub-goals. For each sub-goal in the sub-sector, there is a presentation of specific challenges, the expected outputs, the targets set to produce the outputs and the activities which will be implemented. Targets to the extent possible have been quantified. Baselines, where available, are based on official GoB publications. Targets are set for the period of the ESP from FY20/21 through FY25/26. Baselines and targets are disaggregated by gender where relevant. Key targetsfor each sub-sector are included in the Results Framework, which is introduced in chapter 8, under the headings of access and equity, quality and relevance and governance and system management. Along with the targets, the Results Framework lists indicators, baselines, data sources, means of verification, lead agencies and risk factors as well as enabling conditions. Where baselines are not available, they are to be set during the first year of implementation of the ESP. Some targets,ifnot specifically included in the Results Framework, will be incorporated in the annual work plans for the respective sub-sector.

The development of the ESP has taken place during the time Bangladesh is facing the pandemic. In May 2020 GoB released the COVID-19 Response and Recovery Plan for the Education Sector (MoPME and MoE, 2020). The most immediate and direct effect of the pandemic on the education system in Bangladesh has been the discontinuation of school for around 36.8 million students. It is recognized that the pandemic has had negative consequences in terms of learning outcomes and that it has disproportionately affected children from the poorest households. The COVID-19 Response and Recovery Plan outlines a three phase programme covering the short, medium and long term. The targets and activities of the ESP for each of the sub-sectors are aligned with the plans outlined in the Response and Recovery Plan, and the response to COVID-19 is discussed further in chapter 4 as a cross-sectoral issue.

3.1 PRE-PRIMARY EDUCATION

CURRENT STATUS

One-year of pre-primary education (PPE), starting at age 5, has become widely available over the last decade in Bangladesh. Every government primary school is required to operate a pre-primary class, although children's attendance is still not mandatory. From 2010 to 2017 enrolment in pre-school increased dramatically by three times, rising to 3.2 million in 2017. The percentage of Grade 1 students who had attended PPE increased from 50% in 2012 to 93% in 2018 according to the primary school census and DPE's ASPR (DPE, 2019). PEDP4 has a sub-component to

support the equitable expansion of PPE as well as to address issues related to the quality of provision.

The SDG4 Strategic Framework for Bangladesh (2019) highlights the increasing public interest in early childhood development (ECD), including pre-primary education. However, despite the good progress in pre-primary education, coverage of under-fives in any type of organized educational activities remains inadequate in Bangladesh. The National Education Policy 2010 advocated for two years of pre-primary education, and in June 2020 the Honorable Prime Minister approved introducing two years of pre-primary classes starting under a pilot scheme, enrolling children at age 4. Plans are underway to introduce pre-primary classes for four-year-old children in one school in each of 2,616 clusters around the country from 2021.

CHALLENGES

Although nearly all government primary schools (GPS) and government funded primary schools now offer pre-primary classes, there is still an insufficient number of "dedicated" classrooms and teachers for PPE. There were 65,620 government primary schools and 63,638 other schools and learning centers in 2019 conducting pre-primary classes (APSC 2019). Separate pre-primary classrooms are allocated in 34,799 government schools and 37,672 assistant teachers have been appointed and trained for PPE (DPE, APSC 2019). There are also concerns with regard to the physical environment (availability of safe drinking water, access to age appropriate sanitation facilities, safety and security issues), adequacy of play and teaching-learning materials in the classrooms, availability of trained PPE teachers in all schools, the need for continuous professional development, accuracy of PPE data, and provision of PPE for children from disadvantaged groups including those with disability and from ethnic minorities (DPE, 2018). These remain major challenges both within and outside the government system.

Only a small proportion of children under the age of 5 participate in organized ECD activities. Most ECD service provision is private and costly, except for programmes operated by NGOs. Children from the poorest families have the lowest participation rates in organized ECD activities (World Bank, 2020). It is recognized that a more systematic and comprehensive approach for participation in organized ECD activities is needed for children below the current pre-primary stage, as anticipated in the SDG4 indicators for early childhood development. The Comprehensive Early Childhood Care and Development (ECCD) Policy was adopted by the government in 2013 targeting early childhood development from conception to 8 years (MoWCA, 2013). The Ministry of Women and Children Affairs (MoWCA) is the government focal agency to facilitate implementation of the policy for children before they enter formal pre-primary school in cooperation with all government and non-government actors.

OUTCOMES

The indicated ESP outcomes for pre-primary education (in alignment with the Policy Matrix) are divided into three broad categories, or sub-goals. The outcomes will be achieved through targeted interventions addressing the major challenges in the sub-sector.

The access and equity linked outcomes for pre-primary education in Bangladesh are:

- Access to school-readiness programmes by all pre-school children of age 5 years and a significant proportion of age 4 years

- Ensuring enrolment and retention of disadvantaged groups in pre-primary education including children with special educational needs and children of the ethnic minorities.

The quality and relevance linked outcomes for pre-primary education in Bangladesh are:

- Measurable learning and development outcomes achieved in pre-primary
- Adequate numbers of teachers-facilitators with necessary professional preparation and training
- Availability of adequate classroom facilities, relevant learning materials and educational technology resources, including for children with special educational needs and children of the ethnic minorities.

The governance and system management linked outcomes for pre-primary education in Bangladesh are:

- Improved implementation, monitoring and evaluation capacity with effective coordination
- Effective involvement of communities, parents and NGOs with relevant capabilities
- Adequacy of budgets necessary to achieve the objective

Baselines for the targets for pre-primary education are taken from the Annual Sector Performance Report (ASPR) 2019 for the year 2018 or from the Annual Primary School Census (APSC) 2019 for the year 2019, using the latest data available. Projected targets are based on PEDP4 plans where applicable, taking into account that the ESP period extends past the current PEDP4 period.

ACCESS AND EQUITY

Overall access to PPE remains a challenge. The Multiple Indicators Cluster Survey (MICS) 2019, a sample-based household survey carried out by the Bangladesh Bureau of Statistics, indicated that 73% of first grade students had attended PPE (BBS, 2019). This is lower than the percentage based on data from the schools due to differences in the methodology between school-based and household-based data gathering, but it is still a creditable achievement given the very low participation rates in pre-primary education a decade ago. One reason for the access problem is that schools have the responsibility to offer only one PPE class with a limited number of students per class. There is a need to increase significantly the number of classrooms suitable for PPE classes as well as to ensure that water, sanitation and hygiene (WASH) facilities are adequate and appropriate for the age group.

Despite increases in pre-school participation over the past decade, pre-primary education continues to be characterized by inequitable access, particularly based on income level, geographic area, and disability. The disparity in access to PPE between children from the poorest and richest families has declined, but differences persist. Whereas in 2010, only 34 percent of 5-year-oldsattending pre-school were from the poorest two quintiles, this figure increased to 54 percent by 2017. In 2017, around 30 percent of 5-year-old children poorest families were enrolled in PPE compared to 40 percent from the richest families (World Bank, 2020).

There are also disparities in access across geographic areas. The share of children enrolled in PPE from rural areas has increased over time, bringing it closer to the proportion of the population residing in rural areas. However, among children *not* enrolled in PPE, the majority are from rural

areas, and this has remained unchanged between 2010 and 2017, with 73 percent of not enrolled 5-year-olds from rural areas in 2010 and 75 percent in 2017 (World Bank, 2020).

Children with physical and/or cognitive disabilities also have inequitable access to PPE. An analysis of HIES 2016-17 data shows that a child with a disability is 54 percent more likely not to be enrolled in PPE compared to a child with no disability, holding other factors constant (World Bank, 2020).

Apart from one year of pre-primary schooling available in government primary schools, public provision of ECD programmes is limited in Bangladesh (Dev, et al, 2018). The latest MICS (BBS, 2019) revealed that only 19% of children in the age of 36 to 59 months attended some form of organized early childhood development activity such as a day-care center, community-based child development center or a privately operated nursery. According to one survey children from low income families and rural areas are significantly less likely to participate in pre-school education, with around 31.4% of 4-year-olds from the richest quintile enrolled in pre-school compared to only 17.2% of children from the poorest quintile (World Bank, 2020).

Whilst MoPME manages formal education for children from the age of 5, including one year of education prior to entry in grade 1, ECD for young children before they enter pre-school is an area of responsibility outside the remit of the education sector. Progress has been slow in implementing the ECCD policy, but the inclusion of ECD as an SDG target (SDG4.2) is expected to generate a momentum. MoPME's plans to extend pre-primary to the age four group, after the initial piloting, should produce a rapid increase in the number and percentage of four years old children in ECD/pre-primary education. Provisional proposed plans indicate that the pilot should include at least one school per cluster across all sub-districts, including schools in socio-economically disadvantaged and hard-to-reach areas. The relatively lower participation of children from poor households in current programmes points to the need to target children from the poorest families in the pilot programme.

Outputs

The following access and equity related outputs have been identified for the ESP:

- Applying affirmative strategies for reaching and serving groups characterized by special needs, extreme poverty, disability, geographical, gender and ethnic disparity, integrated into sub-sector plans, through formal and non-formal education provision
- Facilities expansion and improvement including dedicated PPE classrooms, appropriate WASH facilities for young children, including children with disabilities, and ICT resources
- Extending pre-primary to a two-year programme for age 4+, in stages, using developmentally appropriate methods

Targets

In order to achieve the above outputs, the following targets have been set:

- All five years old children enrolled in PPE classes—from 94% of all children, 92% of boys and 96% of girls in 2018 to 100% for all categories in 2025
- Increased percentage of grade 1 entrants with PPE—from 80% of all children, boys and girls in 2019 to 100% for all categories in 2025

- Increased number of four years old children enrolled in appropriate PPE classes—from Nonein 2020 to >20% of age group in 2025 with annual phasing (target to be confirmed based on results of pilot)
- Affirmative action for pre-primary learners from disadvantaged families and/or with special educational needs or language of instruction learning needs (Number of beneficiaries from disadvantaged families – base year and final year with annual phasing—to be given attention in activity plan for the sub-sector).
- One designated PPE classroom for every school, accommodating at most 30 students with operation of a second shift where the number of children exceeds 30 or alternative arrangements for more classes in schools where two-year pre-primary education is being implemented -– baseline and final year targets to be determined with annual phasing
- Availability of safe drinking water and WASH facilities suitable for PPE children including children with disabilities in every school--baseline and final percentage of schools with adequate water and WASH facilities to be determined with annual phasing.
- Revised list of targets and activities focusing on access and equity, building on targets and activities in PEDP 4 and extending to 2025 (To be given attention in activity plans)

Activities

The following activities will be undertaken in a phased manner over the five years period to achieve the above targets:

- Mapping of pre-primary aged children and PPE/ECD providers in each school's catchment area and planning of PPE accordingly
- Construction / arrangement of dedicated PPE classrooms following age appropriate specifications with space for learning through play and with adequate and age appropriate WASH facilities, including for children with disabilities
- Selection of schools for additional year of PPE/ECD pilot, including schools in disadvantaged areas and serving children from disadvantaged families
- Survey of pilot areas to assess piloting results as a basis for future planning for organized PPE/ECD for four years old
- Expansion of PPE for four years old children based on learning from the pilot
- Identification and application of affirmative action for special educational needs and other disadvantaged groups
- Review of current activities (including under PEDP4), objectives, targets, strategies, progress and any critical issue, focusing on access and equity, and adjustment of plans as appropriate and extending to 2025
- Assessmentof current plans and planning for physical facilities including ICT with phasing based on current plans and needs for future

QUALITY AND RELEVANCE

Considerable progress has been made in the government's provision of pre-primary education in the last few years in terms of the curriculum, teaching learning materials, teacher recruitment and training and providing for dedicated classrooms. However, as noted in the planning of PEDP4, there are still gaps in facilities and quality of services. Due to shortage of classrooms in the school, a dedicated classroom for PPE does not exist in many schools. This means that classes

cannot be furnished and arranged in appropriate ways for learning through play, often causing the lessons to be academically orientated instead of activity based. Classrooms are not attractive for young children in many schools, where children's work is not displayed on the wall in the absence of a dedicated PPE room. There is a shortage of trained PPE teachers, especially in recently nationalized primary schools. Less than satisfactory student-teacher ratios and the low number of well-trained and PPE-dedicated teachers impair the quality of instruction (DPE 2018).

The benefits of ECD and PPE can only be realized to the extent the activities are carried out maintaining acceptable quality and ensuring a joyful learning environment with 'learning through play' as the main methodology. In Bangladesh, as in other countries, it has been shown that pre-school provision for children aged 4 has positive impacts on child development and school readiness (AIR, 2020), but this is only the case if the learning environment is positive and the curriculum and expectations are age appropriate. Before starting the pilot for four years old children it is important to ensure that the weaknesses in the present one-year programme are addressed and not reproduced in the pilot programme. In this regard, the Early Learning and Development Standards (ELDS) developed under the auspices of the Ministry of Women and Children Affairs (MoWCA) provide quality guidelines (BEN 2016). MoPME may consider the aspects of the guidelines which are relevant for four-year-old children.

PEDP4 will finance interventions to improve the physical environment, reduce the student teacher ratio (STR), strengthen the capacity of PPE teachers, and ensure the timely delivery of play and teaching-learning materials so as to work towards ensuring that all government schools offer PPE according to approved standards. DPE has developed, through a consultative process, a standard guideline for ensuring the quality of pre-primary classes which all schools are to follow, as given below:

- A dedicated classroom for PPE
- A dedicated teacher for PPE class
- Minimum 15 days basic training on PPE as per training manual
- Safe and secure classroom and premises
- Minimum WASH facilities available (safe drinking water, hand washing and toilet facilities)
- Classroom organized and decorated as per classroom organization and decoration guideline developed by DPE
- All teaching learning including play and stationery materials as per list available in the classroom
- Mapping of pre-primary age children and available service providers in school catchment area with plan to cover all children. (Number of children in catchment area, number of children in PPE at different types of services, number of children not enrolled in PPE)
- Net enrolment rate for PP more than 80% (PPE children age 5 to 6 years)
- Achieving 30:1 student teacher ratio (STR)
- Following class routine, annual work plan and teaching learning process mentioned in the teacher's guide
- PPE class following continuous assessment guideline with updated record with no exam throughout the year.
- Maintaining daily attendance rate 90% or more
- Each PPE class organized at least 6 structured parents' meeting following a guideline.

- Each PPE class received structured supervisory visit and support from Head teacher twice in a month.
- Each PPE class received structured monitoring visit and support from education officers once in every quarter following a guideline
- All PPE graduates enrolled in Grade 1 (DPE, 2018)

The guideline will be reviewed based on experience and evaluation of the programme. More emphasis may be needed on learning through play, particularly in the teachers' training, and on developmentally appropriate activities. A major challenge in Bangladesh is to avoid an overly academic approach to PPE. The guideline was prepared for PPE for five-year-old. An adapted guideline will be needed for four years old children applying the ELDS principles. The major challenge will be to ensure that the classes are developmentally appropriate for the age 4 years group. At the age of four, most children are not developmentally ready for academic activities, so the main methodology must be learning through play.

Outputs

The following quality and relevance related outputs have been identified for the ESP:

- Ensuring a sufficient number of qualified teachers and their basic professional training on PPE and continuing professional development
- Ensuring developmentally appropriate and effective PPE curriculum and teaching learning materials with a focus on active learning and formative assessment
- Preparation of developmentally appropriate PPE pilot programme for four years old children, evaluation of its appropriateness and effectiveness based on the ELDS criteria, revision of programme based on evaluation and expansion of programme in a phased manner

Targets

In order to achieve the above outputs, the following targets have been set:

- Placement of one PPE trained teacher in every school – numbers and percentages of total and by gender with baseline and final year targets to be determined with annual phasing
- Initial basic professional training on PPE for all PPE teachers followed by regular continuous professional development (CPD)--baseline and final year numbers and percentages of total of trained pre-primary teachers to be determined with phasing
- Orientation and training on PPE for all head teachers and educational supervisors
- Ratio of students-teachers not exceeding 30:1 and students-trained teachers ratio at same levels--baseline and final year number of schools with STR not exceeding 30:1 and STR for trained teachers to be determined with phasing
- Increased numbers and proportions of students receiving/using adequate learning and play materials--baseline and final year with phasing to be given attention in activity plan
- PPE curriculum and learning materials reviewed and evaluated and further developed for developmental age appropriateness and effectiveness --to be included in activity plan
- Developmentally appropriate PPE programme for fouryears old children implemented as pilot, and expanded following evaluation and revision--to be included in activity plan

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Recruitment of a sufficient number of additional teachers to ensure that all GPSs have a PPE teacher
- Basic professional training on PPE and other professional development activities for enhancing capacity of PPE teachers
- At least five days orientation and training on effective supervision and monitoring of PPE for head teachers and educational supervisors
- Timely provision of PPE package of teaching-learning materials in all schools
- PPE play and stationery materials provided to schools at the beginning of the school year (Materials are child friendly, non-toxic, safe, colorful, with hard and soft texture and light with a mix of locally made and procured materials)
- Ensuring that children have easy access to all teaching-learning materials
- Introduction and operation of second shift PPE class in schools in which PPE enrolment exceeds 30 children
- Review and evaluation of developmental appropriateness and effectiveness of PPE curriculum and teaching learning materials
- Further development of PPE curriculum and the core materials based on the review and on the ELDS criteria with an emphasis on play and activity based learning and formative assessment as part of the teaching learning process
- Consensus-building on quality assurance principles, strategies and mechanisms for the sub-sector
- Selection of an appropriate model for additional year of PPE/ECD pilot, development and provision of teaching learning materials, including supplementary materials, and development and provision of training for the teachers.
- Review and evaluation of PPE/ECD pilot in terms of developmental appropriateness and effectiveness
- Revision and further development of curriculum and teaching learning materials with a focus on learning through play

GOVERNANCE AND SYSTEM MANAGEMENT

PPE is a progressive initiative in the government primary education system. There are some limitations in the system for monitoring, supervision and professional support. This is partly because neither head teachers nor education officials have had training or experience in PPE. Collaboration with NGOs with ECD/PPE experience was anticipated in a GO-NGO cooperation guideline approved by MoPME (MoPME, 2008; DPE, 2016; Bhatta et al, 2020). Currently the responsibility for ECD provision for children before they start formal pre-primary education is with the Ministry of Women and Children Affairs (MoWCA). As MoPME takes on the pilot programme for four years old children there will be additional workload for appropriate monitoring, supervision and support. Inter-institutional collaboration and GO-NGO cooperation would be effective to implement the current PPE provision for five-year-old children and for the upcoming initiative for four years old children.

Governance and system management of PPE is closely related to the governance and system management of primary education since both are the responsibility of the Directorate of Primary Education (DPE), primary education officials and primary school management. As the overall systems in primary education are improved, PPE systems and management will also require to be improved. However, there are some distinctive needs of PPE which will need to be considered in the overall governance and system management of primary education. The overall responsibility for the implementation resides with DPE except for the curriculum and learning materials aspects, which are the responsibility of the National Curriculum and Textbook Board (NCTB). The establishment of a PPE Division within DPE and a PPE wing within NCTB is being considered in order to build the necessary expertise in PPE at the national level. The establishment of resource teams in each upazila will be an effective means to strengthen the monitoring system and support capacity at the local and school level. Such teams would be comprised of upazila education officials, Upazila Resource Center (URC) officials, Primary Training Institute (PTI) instructors and active ECD NGO personnel, if any. The National Academy for Primary Education (NAPE) will be assigned special tasks to prepare the training packages including curriculum for PPE for PTI instructors, upazila and district education officials and PPE teachers as well.

The expansion of pre-primary education to the age four population is likely to create additional strains on the education budget. In setting the budget it must be recognized that the PPE programmes will not be effective unless they are age appropriate with a strong focus on learning through play.

Outputs

The following governance and system management related outputs have been identified for the ESP:

- Capacity-building of head teachers and in upazila (sub-district) education offices, upazila resource centres and primary teacher training institutions for training, management support, supervision and monitoring for quality pre-primary education (making it as a part of training for quality primary education, taking care that pre-primary is adequately covered).
- Collaboration and cooperation with NGOs, and academic and research institutions with capabilities in ECD and pre-primary education for capacity-building and professional support to pre-primary education personnel
- Review and revision of the existing GO-NGO collaboration guidelines for PPE to expand pre-primary education coverage of the 4 years and 5 years age groups
- Ensuring adequate budget for sub-sector, establishing criteria for allocations and ensuring results-based financial management (to be included in financial plan for ESP)

Targets

In order to achieve the above outputs, the following targets have been set:

- Strengthened supervision, monitoring and evaluation systems--charting of progress
- Monitoring and support tools for PPE developed and established as part of system--charting of progress

- Establishment of mechanisms within DPE, NAPE and NCTB for management of PPE activities and increased capacity on PPE for DPE, NAPE and NCTB staff
- Development of a resource team in each upazila comprising upazila education office (UEO), upazila resource center (URC), PTI and active ECD NGO personnel--charting of progress
- Strengthened capacity of resource team to support quality pre-primary education--baseline and number of teams established and trained in PPE in phased manner

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Capacity building of head teachers (HT) on PPE methodology and PPE package in order to strengthen their capacities to supervise PPE activities integrated into the leadership training for HTs
- Strengthening and capacity building for management support, supervision, inspection for sub-sector
- Establishment of structures and designation of specific staff within DPE, NAPE and NCTB for the effective management of PPE interventions
- Strengthening collaboration and partnerships between government and non-government providers
- Establishment of upazila PPE resource teams
- Assessment of needs and development of training and skill upgrading for resource team to strengthen their capacity to support quality pre-primary education, to be planned as part of resource team development for primary education
- Orientation of all field officials in order to strengthen their capacities to supervise PPE activities
- Strengthening personnel management, establishing and applying performance standards
- Ensuring financial adequacy for sub-sector
- Specification of monitoring indicators, mechanism and plan for sub-sector
- Structured supervisory visit by head teacher to each PPE class twice each month
- Structured monitoring visit at least once in each quarter of the year to each school by upazila education officials to observe PPE

As a practical approach, these activities must be planned and carried out as part of the overall plans for primary education. It should however be ensured that the pre-primary elements are highlighted, and their distinctive characteristics recognized.

It is also necessary to review carefully the PEDP4 plans for PPE activities and identify needs for modification and adjustment of outputs, targets and related activities, to align these with the broader ESP outputs and objectives in the context of SDG4, to implement the government's policy to introduce two years of pre-primary education and to extend the scope of PEDP to the ESP timeline of 2025.

3.2 PRIMARY EDUCATION

CURRENT STATUS

The Constitution of Bangladesh calls for free and compulsory education (Article 17*), "The State shall adopt effective measures for the purpose of: (a) establishing a uniform, mass-oriented and universal system of education and extending free and compulsory education to all children to such stage as may be determined by law; (b) relating education to the needs of society … and (c) removing illiteracy within such time as may be determined by law."* The Primary Education (Compulsory) Act 1990 made primary education free and compulsory up to Grade 5 and operationalized the constitutional provision by defining the obligations of the state and citizens and introducing necessary regulations (MoE, 1990).

The Bangladesh Vision 2021 was prepared to articulate the government's vision and reflect the hopes and aspirations of Bangladesh citizens. It identified eight goals and proposed a set of specific measures to be achieved by 2021 (GED, 2012).The Perspective Plan, which listed the following key objectives regarding primary and mass education, remains relevant today.

- Ensuring inclusiveness and access as the duration of primary education is extended from the present grade 5.
- Upgrading the curricula to the need for quality education in a gender-sensitive manner enabling all students to acquire human qualities on one hand and basic skills on the other.
- Decentralizing the administration and management system to develop a good mechanism for the supervision and monitoring through involvement of local citizens in addition to official processes; and
- All illiterate, semi-literate and neo-literate young persons and adults will have access to learning opportunities for basic education, adult literacy, and continuing education, including skills development for jobs or self-employment (GED, 2012).

The primary education system in Bangladesh is one of the largest centrally managed education systems in the world with 17 million students, just over half girls, enrolled in primary schools across the country (DPE, ASPR 2019).Of the total primary education institutions, 53 percent are government primary schools (GPS) and the rest of the schools are managed privately. However, in respect of enrollment 78% of the total students are in government primary schools (ASPR, 2019).

Reform and improvement of primary education in Bangladesh since the turn of the century has been carried out through an integrated approach known as the sector-wide approach (SWAp), which is in reality a sub-sector programme for primary education. The Fourth Primary Education Development Programme (PEDP4) is implemented by the Directorate of Primary Education (DPE) under the Ministry of Primary and Mass Education (MoPME) and is supported by multiple development partners. The aim of the program is to support Bangladesh's primary education to become an efficient and effective system that provides quality primary education to all children of Bangladesh. The programme builds on the achievements of previous programmes with emphasis on strengthening the quality of education, improving access to education and enhancing institutional management through greater decentralization (DPE 2018).Stipends for primary level students were universalized in 2016, i.e. all students enrolled in this sub-sector now receive stipend. Furthermore, to enhance implementation efficiency GoB has been transferring the stipends directly to the mobile banking accounts of the mothers of the children since 2017. From 2009, GoB has provided free textbooks to primary and secondary level students. For the academic year 2020, 350 million textbooks were distributed among 40 million students in December 2019. The school feeding programme under the National School Meal Policy is providing mid-day meals

to students in 15,700 schools. This programme aims to meet at least 30 percent of the calories intake and 50 percent of the micronutrients needs of primary school going children in Bangladesh. These initiatives have proven to be effective in retaining students in schools and GoB intends to continue the programmes and to improve them as and when necessary. See Annex IV of the ESA for a description of the main features of PEDP4.

CHALLENGES

Bangladesh has achieved nearly universal enrolment in primary education with gender parity. However, there are still considerable numbers of children out of school due to dropouts and quality remains a central issue. The SDG4 Strategic Framework for Bangladesh emphasizes the need for steady progress in ensuring quality of education by improving the learning outcomes for all children. This will require continuation of plans already adopted, with re-shaping of strategies.

In the planning of PEDP4 several major challenges were identified which need to be addressed in order to have an efficient and effective primary system serving all children in Bangladesh (DPE 2018). While Bangladesh has been successful in steadily improving access to education, narrowing gender disparities in enrolment at the same time, the education divide still persists in terms of participation, completion and learning outcomes between regions (urban, urban slum, rural, and remote areas) as well as between children coming from different household economic backgrounds. Targeted efforts are essential to ensure that the most disadvantaged children and children with special educational needs have equal opportunity to enroll in school, to achieve the expected learning outcomes, to complete primary schooling and to transition to secondary education.

While there have been significant improvements, malnutrition and micronutrient deficiencies remain significant challenges that limit primary school children's ability to succeed. The MICS data show that 27.8 percent of under-five children are underweight, 36.8 percent of them are stunted and 12.1 percent are wasted (MICS 2019). A comprehensive initiative is needed to mitigate these challenges. There is also the need to establish a programme for health screening in primary schools for the early detection of health problems.

Improving the quality of the system as measured by learning outcomes remains a major challenge. The determinants of learning deficiency, particularly the quality of teaching-learning practices, must be addressed. Most of DPE's administrative and financial functions are centralized, thus it becomes difficult to maintain operational efficiency and programme effectiveness. Strengthening governance and management whilst decentralizing functions must be a focus of educational reform and planning.

OUTCOMES

The indicated ESP outcomes for primary education (in alignment with the Policy Matrix) are divided into three broad categories, or sub-goals. The outcomes will be achieved through targeted interventions addressing the major challenges in the sub-sector.

The access and equity linked outcomes for primary education are:

- All children enrolled in primary education at the age of 6, including children from disadvantaged groups, children with special educational needs and children of the ethnic minorities

- Suitable physical facilities and child-friendly learning environments available in all schools meeting the needs of all girls and boys, including children with disabilities, with adequate WASH facilities and sufficient space for active learning
- Strengthened institutional capacity and enhanced coordination mechanisms to ensure continuity of education during and following natural calamities and other emergency situations

The quality and relevance linked outcomes proposed for primary education are:

- Measurable learning outcomes in Bangla and mathematics improved through competency-based curriculum and high-quality textbooks and teaching-learning materials, including ICT
- Sufficient number of teachers and head teachers in primary schools skilled and qualified through initial training and continuous professional development, including a major initiative of developing strategy for pre-service teacher education and implementation plan for recruitment of pre-service educated teachers in future (discussed in chapter 4)
- High quality standardized educational assessment for system performance and improved formative assessment practices as part of the teaching-learning process

The governance and system management linked outcomes for primary education are:

- Progressive decentralization of functions with planning, management, accountability and financial authority to district, upazila and institutional levels with institutional strengthening and capacity building at all levels
- Improved school level governance and management through capacity building of head teachers and community involvement
- Improved monitoring and supervision for quality assurance
- Increased budget allocation for primary education along with greater efficiency and effectiveness in use of the budget.

Baselines for the targets for primary education are taken from the Annual Sector Performance Report (ASPR) 2019 for the year 2018 or from the Annual Primary School Census (APSC) 2019 for the year 2019, using the latest data available. Projected targets are based on PEDP4 plans where applicable, considering that the ESP period extends past the current PEDP4 period.

ACCESS AND EQUITY

Overall, there have been notable improvements in enrolment over the years (ASPR 2019). Net Enrollment Ratios (NER) have increased from 87 percent in 2005 to 98 percent in 2019. The NERs for boys and girls have converged towards parity between 2005 and 2019. In 2005, the NER for boys in primary education was 85 percent, compared to 90 percent for girls. These two have converged to the national average of 98 percent as of 2019. Attention however will need to be given to data collection and analysis methods to reconcile the reported nearly universal enrolment with the cycle dropout rate as well as a considerable number of out-of-school children at the primary stage, although there is a decreasing trend in recent years.

There remain significant challenges in terms of access and equity. Children with disabilities and children from disadvantaged backgrounds are less likely to enroll and remain in school than other children, particularly children from better off families. There are urban disadvantaged areas with

an inadequate number of schools to accommodate the high number of children in these densely populated areas. Due to differences in collecting information by different instruments it is difficult to calculate the number of children who are out of school. Based on the 2010 HIES data of the Bangladesh Bureau of Statistics (BBS), DPE estimated that in 2014 there were 5.5 million children aged 6 to 14 who were out of school (DPE, ASPR 2019). Despite having high enrolment rates, household surveys indicate that a considerable number of children remain out of school. There are also children who do not transition from primary school to secondary school. DPE is considering the feasibility of establishing a trade-based training course for children who complete primary school but do not enroll in secondary school.

Student-teacher ratios (STR) and student-classroom ratios (SCR) remain high due to an inadequate number of classrooms and teachers, and this may discourage some children from enrolling or remaining in school and ensuring quality education. The national STR masks differences in regions and institutions. In some schools the STR is extremely high, particularly in the lower grades. The lack of suitable facilities for children with disabilities and classrooms in poor physical condition remain major challenges in many schools.The problem of inadequate WASH facilities in schools is being addressed. By the end of PEDP3 28,500 WASH blocks constructed and it is projected that by the end of PEDP4 in 2023 all primary schools across the country will have WASH facilities. DPE plans to establish a national framework for school health check-ups at primary schools and is considering the introduction of a school health system.

Outputs

In order to address the challenges and to achieve the outcomes, the following access and equity related outputs have been identified for primary education for the ESP:

- Application of targeted affirmative strategies in schools for reaching and serving groups characterized by special needs, extreme poverty, disability, geographical, gender and ethnic disparity and/or ethnic minorities, integrated into sub-sector plans.
- Expansion of appropriate educational facilities with adequate capacity and suitability for enrolment and retention of all children in the primary age group and ensuring a sufficient number of contact hours for optimal learning
- Enrolment of out-of-school children in appropriate grade levels
- National framework of school health check-ups at primary schools along with implementation guidelines for school management
- Institutionalization of preparedness planning for and adequate response to education in emergencies, including access to internet and educational technology

Targets

In order to achieve the above outputs, the following targets and indicators have been set for access and equity in primary education:

- Higher net enrolment ratio in primary education (grade 1 -5)—from 98% in 2019 for all students, for boys and for girls to 100% for all categories by 2025
- Higher net intake in grade 1—from 96.5% in 2019 to 100% in 2025 for all students, from 96% to 100% for boys and from 97% to 100% for girls
- Reduced number of primary aged children out of school—to be determined for base year and final year, total and by gender

- Enrolment of out-of-school children in appropriate grade levels -- significant number of boys and girls with number to be determined based on survey with annual phasing
- Increased number of safe and adequately equipped (with sufficient number of classrooms, appropriate furniture, ICT equipment and electricity) primary schools and classrooms in terms of number and percentage of total – to be determined for base year and final year with annual phasing
- Increased number of schools with healthy and safe environment which are girl and disability friendly (with playgrounds, WASH blocks, and boundary walls) – to be determined for base year and final year with phasing
- National framework and programme designed for regular primary school health check-ups and programme piloted Targeted affirmative action for disadvantaged primary learners (other than disabilities), number of beneficiaries – to be determined for base year and final year with annual phasing (baseline may have to be estimated)
- Improved affirmative action for primary learners with disabilities and/or children from ethnic minorities and increased number of beneficiaries – to be determined for base year and final year with annual phasing (baseline may have to be estimated)
- Increased percentage and number of schools with access and inclusion plans for children with special educational needs and disabilities (SEND) – from none to at least one school in each cluster by final year with phasing
- Feasibility assessed of trades-based training for children who complete primary school but do not enroll in secondary education
- Increased number of enrolled children with special educational needs and disabilities (SEND) covered by inclusion plans-- to be determined for base year and final year with annual phasing
- Special measures undertaken for children of ethnic minorities, including accessible schools with multi-lingual education (MLE) provision and teachers trained on MLE
- Increased number and percentage of schools with adequate and regular maintenance and repair funds – to be determined for base year and final year with phasing

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Construction of an adequate number of classrooms to ensure enrolment of all children of primary age group with adequate space, furniture and equipment for active learning
- Construction of WASH blocks (with provision of separate toilets and water points for female students and teachers) and provision of playground where possible, equipment and playing accessories
- Design of framework and programme for regular health check-ups and implementation of a pilot programme in selected primary schools across the country
- Development and implementation of plans for affirmative action for disadvantaged children, for children with special educational needs and for children of ethnic minorities to ensure their enrolment and retention in primary education
- Provision of funds for maintenance and repair of school buildings, classrooms, playgrounds and WASH facilities
- Enrolment of out-of-school children in appropriate primary school grade level

- Assessment of feasibility of trade-based training for children who complete primary education but do not enroll in secondary school

QUALITY AND RELEVANCE

Formidable challenges remain on the quality front in primary education. The SDG4 Strategic Framework and other studies have pointed at two major obstacles to quality education, namely deficiencies in the ability and motivation of teachers and the less than optimal learning environments for children.

The education authorities emphasize the development of the creative and critical thinking ability of students. Ways need to be found to translate the intention into action. The widespread availability of guidebooks in the market and dependence on these as well as the culture of private tutoring are symptoms of deeper problems. The learning environment is often not child friendly and teachers tend to give more emphasis to formal assessments at the end of the year and at the end of the primary phase than to formative assessment as part of their teaching technique.

Initiatives towards removing these obstacles include competitive and transparent recruitment of teachers, better incentives and higher qualification requirements along with improved teacher education are required. Changes in learning assessment are required including reconsideration at the policy level of the value of the current form of subject-based public examinations at grade 5 and 8 and the need to accord greater importance to school-based formative assessment. Reforms in assessment systems will require the development of the teachers' competence and capacity to effectively implement formative assessment as part of their teaching technique.

The professional skills and competence of teachers, their professional commitment, as well as professional support and supervision for them, determine how teachers and students perform. These issues, a concern across the board in all education sub-sectors, are discussed further in chapter 4. In primary education there is no pre-service training available. Accordingly, each year the system recruits thousands of new teachers who have no qualifications or experience in primary education. In some cases, it may be two or three years before a new teacher is able to attend the initial training course. The lack of provision for pre-service qualifications is a major barrier to the recruitment of suitable teachers and results in many children being taught by teachers with lack of appropriate competency. MoPME is planning to have a compressive study along with modality to begin with pre-service education to address this issue.

The learning achievement of students, the most important measure of quality, is usually gauged by examination results of students and by surveys of learning assessment conducted independently of examinations. The Primary Education Completion Examination (PECE) was introduced in 2009 and is conducted at the end of grade 5 as a national examination throughout the country. Prior to 2009, student evaluation was made at the school level. Although over 95% of PECE examinees have consistently obtained at least a basic pass (a minimum 30% score), there are questions on overall quality of learning. There are debates on the high stake national examination at the end of Grade 5 concerning its value, technical validity, and reliability on learning outcomes. Recognizing the negative consequences of an examination that mainly measures recall, MoPME took initiatives under PEDP3 to gradually introduce questions into the PECE which assessed students' analytical and other higher-level skills. The positive and negative consequences of a high-stake national exam at the end of primary remain a matter of national

debate, and meaningful formative and summative assessments remain problematic in primary education in Bangladesh.

The National Student Assessment (NSA), conducted under the auspices of DPE, was applied to representative samples of students in grades 3 and 5 every two years from 2011 to 2017 in the main school types to assess the achievements of students in Bangla and Mathematics. The samples in the recent rounds have exceeded 20,000 students for each of grades 3 and 5, selected from 1400 primary schools(DPE 2018).The competency levels of students in Bangla language have not changed significantly between 2013, 2015 and 2017, except for somewhat lower performance at grade level for grade 5 students. A similar pattern of no or limited improvement can be seen in mathematics performance. In 2017 only 44% of grade 5 students were assessed as having achieved proficiency or above performance levels in Bangla language and only 32% were assessed as having achieved proficiency or above performance levels in mathematics (NSA, 2017). The stated purpose of the NSA is to provide relevant information to support policy and planning, enhance teacher capability, and improve student learning by improving classroom instruction (DPE 2018). It is clear from the results that comparatively low learning competencies remains a major problem and tackling this problem has to be the key priority.

The Math Olympiad technique has been introduced in primary schools to improve the mathematics skills of students. The initiative aims to improve students' numeracy skills to assist them to attain the 21st century competencies in accordance with SDG 4.1.1.)

Systematic English training is being implemented under PEDP4 for the enhancement of the English language teaching skills of primary education teachers. In primary education cub-scouting can play a vital role in the development of leadership qualities and the moral and ethical values of primary school children. At present there are around 39,000 primary schools with cub-scout teams. These teams are important for encouraging the physical and psychological development of primary school students. This can also contribute significantly to the wider society's welfare and betterment by discouraging young children from involvement in socially unacceptable activities.

Outputs

In order to address the above challenges and to build on opportunities, the following quality and relevance related outputs have been identified for primary education for the ESP:

- Ensuring a sufficient number of qualified teachers and their continuing professional development, including upgrading of head teachers' skills
- Developmentally appropriate curriculum and learning materials, including supplementary reading materials, remedial education packages, the use of ICT and multi-lingual education materials for children of ethnic minorities
- Learning assessment reform balancing formative and summative assessment
- Developing a pool of primary school teachers having adequate skills and knowledge in mathematics and English
- Promoting values and morality with appropriate leadership skills among primary school children leading to better citizens in the future.

Targets

In order to achieve the above outputs, the following targets and indicators have been set for quality and relevance:

- Decreased cycle drop-out rates – from 17.9% of all students in 2019, 19.2% of boys and 15.7% of girls to <10% for all categories in 2025
- Increased percentage and number of schools with manageable class size that meet the STR and Student-Classroom Ratio standard of 30:1—baseline to be determined with 100% by 2025 with annual phasing
- Increased number and percentage of qualified teachers with formal pedagogical training Certificate in Education (CinEd), Diploma in Primary Education (DPEd) or Bachelor in Education (BEd—from 74% of all teachers, 80% of male teachers and 70% of female teachers in 2019 to 100% for all categories by 2025
- Prepared implementation plan on pre-service training of primary teachers following a comprehensive study Increased numbers and percentages of primary teachers and head teachers with in-service/continuous professional development— from 85% of all teachers, 86% of male teachers and 84% of female teachers in 2019 to 100% for all categories by 2025
- All teachers to have received revised curriculum dissemination offline and online training that includes gender and inclusive education—from none to 100% by 2025
- Increased number and percentage of teachers with ICT and e-learning training—from approximately 105,000in 2020 (DPE, 2020) to 80% by 2025, by gender and with annual phasing
- Increased numbers and proportions of classes using supplementary reading materials and other learning aids—baseline and final year targets to be determined with annual phasing
- Increased percentage of schools using effective formative assessment tools supplemented by standardized summative assessment—baseline and final year targets to be determined with annual phasing
- Increased number of grades 1 and 2 teachers trained in remedial education based on assessment results – starting with a baseline of none, final year targets to be determined with annual phasing
- Increased number of grades 1 and 2 students receiving remedial education to improve learning outcomes – starting with a baseline of none, final year targets to be determined with annual phasing
- Increased number of textbooks and teaching-materials in five languages developed and used in schools and teachers trained (for children of ethnic minorities)—baseline and final year targets to be determined with annual phasing
- Increased number of schools equipped with educational technology facility and plans for use with blended approach -- baseline and final year targets to be determined with annual phasing
- Increased percentages of learners achieving proficiency or above levels in Bangla and mathematics at grades 3 and 5—baseline according to 2017 NSA with targets of 85% in both Bangla and mathematics at grade 3 and 60% and 50% respectively at grade 5 for each grade and subject in final year with annual phasing, total and by gender
- Improved competency of primary school teachers in mathematics and English leading to improvement of the mathematical skills of primary education students through the

Mathematical Olympiad techniques and through systematic English training -- baseline and final year targets to be determined with annual phasing
- Improved values, morals and enhanced leadership skills of primary school students through expanding cub-scouting activities extended to65,620 GPS by 2025

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Provision to all schools of quality textbooks, teaching-learning materials and supplementary reading materials on a timely basis
- Development and expansion of ICT based programmes for teacher professional development and engagement including through Internet-based Teachers' Portal
- Development of district-based trainer pools and training materials for curriculum dissemination and teacher orientation working collaboratively with Upazila Resource Center and Resource Team
- Development, trial and application of primary education learner and school assessment tools, summative and formative, as disincentive to rote learning and private tutoring
- Provision of initial training for teachers and continuous professional development based on identification of training needs to improve the quality of teaching-learning practices with initial training progressively undertaken before recruitment as pre-service programmes are expanded
- Development and implementation of training programme for head teachers on classroom observation to improve teaching-learning and assessment
- Feasibility study, development, piloting, evaluation and expansion of pre-service training for primary education teachers -- considering overall rethinking of professional preparation of teachers for school education (discussed in chapter 4).
- ICT used in schools and in professional development to enhance the quality of teaching-learning practices
- Revision of curriculum – as a continuing process, with stronger articulation, reduced content load, effective implementation, school-based learning assessment and emphasis on both classroom and co-curricular learning. Indicate outputs and timeline
- Piloting and report on grades 1 and 2 remedial education programmes in 500 schools
- Expansion of remedial progrramme and teacher training, based on learning from the pilot
- Continuous dissemination of curricular materials and teacher orientation including teachers' guides (print, ICT and on-line)
- Preparation and dissemination of textbooks and learning materials in five languages and training of education officers and teachers to implement MLE
- Preparation of strategy for mainstreaming Math Olympiad techniques in primary education and creation of pool of 2,000 master trainers and training of 130,000 teachers in English to facilitate achieving adequate numeracy and English language skills standards
- Cub scout leader training for primary school teachers to expand the cub scout activities.

GOVERNANCE AND SYSTEM MANAGEMENT

Theprimary education system in Bangladesh is centralized, inherently maintaining a top-down approach in management. The lackof capacity of offices at division, district and upazila levels is a

key constraint to decentralizing administrative and financial powers. High vacancy rates at the local level make managing and delivering education difficult. There has been some decentralization under PEDP3, with delegation of functions and responsibilities to division, district and upazila education offices. However, there is a need for significant further decentralization (DPE, 2018).This will require assessing initiatives taken so far and developing models for upazila and district level planning and management of primary education that will be tried out before wider replication. There is a need for orientation and training on the purpose and process of decentralization for officers at the central and lower levels in order to maximize the benefits of decentralization.

The managerial career path continues to remain problematic, as it does not allow teaching and management staff who have worked within the education system to reach senior management posts. Similarly, a teaching career path with an opportunity to move up from the entry level of Assistant Teacher position does not exist. Various efforts at reform have failed over the years, at least partially because of broader civil service rules. Attempts by MoPME to get approval of a revised proposal for the career progression of teachers, head teachers, and DPE have proven to be very complex, time-consuming, and fraught with political implications (DPE, 2018). New thinking about the education workforce(discussed in chapter 4), may help to address the issue.

For smooth development of infrastructure and civil works under the primary education sub-sector, the establishment of an engineering division in DPE is under consideration. This would be a dedicated division to oversee construction and civil works. It is important to ensure the quality of infrastructure facilities development, monitoring and supervision under the primary education sub-sector across the country.

The current PECE's efficacy and outcomes need to be examined along with the promotion of school-based formative assessment. The extent to which these can be complementary needs to be considered in order to develop appropriate mechanisms, tools and capacity for assessment of student learning. Institutional arrangements and technical capabilities have to be developed for this purpose. There is also need for a coordinated approach so that a common and consistent approach to standardized learning assessment at various stages of primary, junior secondary and secondary levels is followed. A feasibility study to work out an appropriate strategy and action plan for student learning assessment is necessary, including institutional arrangements, methodology and capacity building. Of the total primary education institutions, 53% of primary schools are managed by the government and the rest (47%) are privatelymanaged (ASPR 2019). For establishing unified and uniform management of the primary education system, all the primary schools need to be brought under the management of the government. Registration of all schools in the government system should be ensured. This would result in proper monitoring and supervision.

Outputs

In order to address the above challenges and to realize the outcomes, the following governance and system management outputs have been identified for primary education for the ESP:

- Capacity building at different levels, especially, at upazila education office, upazila resource center and primary teacher training institutions for training, management support, supervision, inspection for quality pre-primary and primary education

- Development of a model for district and progressively upazila-based primary education planning, budgeting, accountability and management with progressively greater authority to schools and piloting in selected upazilas, including publicly accessible reports on SLIP and UPEP grant expenditure
- Collaboration and cooperation with NGOs, and academic and research institutions with capabilities in primary education for capacity-building for training and professional support to primary education personnel with upazila resource center as the hub for a resource team
- Institutional capacity and coordination mechanisms strengthened to ensure continuity of education in times of emergency and disaster risk reduction
- Ensuring adequate budget for sub-sector, establishing criteria for allocations and introducing result-based financial management
- Ensuring quality infrastructure facilities development, monitoring and supervision of GPS
- PECE and NSA strengthened with the focus on students' learning outcomes in a timely manner with accuracy, in measurable forms and comparable to global standards
- Alltypes of primary schools other than GPS registered in compliance with terms and conditions for synchronization and alignment with the broader objectives of the NEP

Targets

In order to achieve the above outputs, the following targets and indicators have been set for governance and system management in primary education:

- At least 95% of positions in district and upazila education offices, URCs and PTIs filled
- Resource team developed in each upazila comprising upazila education office, upazila resource center, PTI, higher education institutions, and active NGO personnel to support quality primary education – resource teams to be established in at least 50% of upazilas by 2025
- Progress towards decentralization of primary education through development of a model for upazila-based primary education planning, budgeting and management with progressively greater authority to schools and piloting the model in selected upazilas
- Valid and reliable quantitative and qualitative information available on time, easily accessible, and used for evidence-based decision-making through functioning EMIS – with school, upazila, district-wise data – and their use for management and monitoring to support decentralized planning and management
- Data on utilization of SLIP and UPEP grants publically available in 250 upazila offices
- Functions and powers of DPE assessed, redefined and decentralized to support field offices to do their job well
- Primary education budgets and expenditures meeting adequacy and effectiveness criteria to serve quality and inclusion objectives with strengthened fiduciary capacities
- Establishing within DPE of a mechanism for planning and executing construction, maintenance and civil works with quality
- Feasibility study undertaken to work out an appropriate strategy and action plan for student learning assessment, including institutional arrangements, methodology and capacity building
- All the privately operated primary schools registered by DPE following set terms and conditions

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Filling of vacant positions in district and upazila education offices, URCs and PTIs (for at least 95% of posts to be filled)
- Assessment of needs and development of training and skill upgrading for resource team as well as functions and capacities of upazila resource centers and development and implementation of plan for a resource team in each upazila, with URCs as the hub -- comprising upazila education office, upazila resource center, PTI, higher education institutions, and active NGO personnel, if any
- Strengthening the DPE and field education offices to manage and administer the primary education system effectively and efficiently through decentralization aimed at devolution of authority and responsibility to upazila and institutions
- Assessing and building on plan and experience for school level improvement plan (SLIP) and upazila primary education plan (UPEP) and grants, development of model for district and progressively upazila-based primary education planning, budgeting and management with progressively greater authority to schools and piloting in selected upazilas, aiming for national replication
- Development of school leadership capacity building programme with head teacher as school leader as the focal point for school's community accountability
- Establishment of per child minimum annual allocation and expenditure for quality primary education and indicative allocations in the long run
- Development of a functioning EMIS--with school, upazila, district-wise data--and its use for management and monitoring to support decentralized planning and management – without burdening teachers and headmasters--indicating outputs, activities and timeline
- Establishment of a mechanism within DPE for planning, implementation, monitoring the constructions and civil works in primary schools and ensuring quality infrastructure development
- Conducting a feasibility study to work out an appropriate strategy and action plan for studentlearning assessment, including institutional arrangements, methodology and capacity building
- Reviewing the existing registration system and developing a plan and effective mechanism for registration of primary schools other than GPS

3.3 SECONDARY EDUCATION

CURRENT STATUS

Secondary education has seen tremendous growth in the last decade. The total number of students enrolled in the secondary level institutions (including Dakhil Madrasah) in Bangladesh increased from 7.4 million in 2009 to 10.4 million in 2018 with 54% of the enrolment being girls (BANBEIS, 2018). Secondary education is dominated by government-subsidized, non-government institution with the share of government secondary schools standing at only 6.3 percent in 2018. It is estimated that 60% of the secondary level institutions are co-educational with 26.5% of the institutions for boys only (DSHE ASPR, 2018). Most non-government

institutions receive substantial government subvention in the form of a basic salary for teachers, through the Monthly Pay Order (MPO), and additional support for capital and some operational expenditure. These schools are also subject to a regime of regulations regarding curriculum implementation and student assessment including public examinations at the end of grades 8, 10 and 12. Although private in name, the schools are given significant financial support and are regulated and largely controlled by the government. Government schools are fully supported from public funds. The Directorate of Secondary and Higher Education (DSHE) oversees all government schools and all the private schools which are funded by the government. The Boards of Secondary Education, one in each Division, regulate academic offerings and the public examinations (BANBEIS, 2018).

Secondary level madrasahs which receive government funding have become a significant component of secondary education as is the vocational/technical stream of secondary education. In 2018 the Division of Madrasah and Technical Education was created under the Ministry of Education to plan qualitative change and better management of madrasahs and technical and vocational streams of secondary and higher secondary education. (See sections3.5 and 3.6).

Since 1982 there has been some form of secondary stipend project in Bangladesh to help increase the enrollment and retention of girls in secondary schools. Initial small-scale pilot projects yielded positive results and were followed by large scale projects. From 1994 the Nationwide Female Secondary Stipend Program (NFSSP) was implemented through four projects covering all rural upazilas. In 2009 the government launched the Pro-poor Stipend Program which included boys from poor families as well as girls as beneficiaries (SESIP, 2020). Stipend projects are widely credited with the Bangladesh's achievement of gender parity in both primary and secondary education. (Also see chapter 4 discussion on inclusion priorities.)

The secondary education sub-sector has until recently been characterized by the existence of several discrete projects with insufficient coordination and sometimes duplicative interventions. Unified and more efficient approaches to funding, procurement, monitoring, and auditing with common fiduciary safeguards and standards built into a harmonized programme were needed. To address these concerns the Secondary Education Sector Investment Program (SESIP) was started in 2014. SESIP's three major result areas were quality and relevance, access and retention and education management and governance. The Secondary Education Development Program (SEDP) was initiated in 2018. SEDP is expected to help better coordinate reforms, promote synergies and strengthen the system (DSHE, 2018). SEDP has three major result areas, namely quality and relevance, access and participation, and governance, financing and management. The three result areas are elaborated through 16 goals of the programme. See Annex V of the ESA for a description of the main features of SEDP.

CHALLENGES

While expansion of access, quality and equity have remained broad objectives for secondary education, the sub-sector is yet to adopt specific and time-bound targets to move towards universalization of access and achieving inclusion and equity related objectives for the full secondary age group. These represent major policy concerns in the context of the SDG4 target of universal and free secondary education. Nonetheless, a major milestone for Bangladesh has been the attainment of gender equity in access and participation in secondary education, supported by various proactive policy measures including stipends and tuition exemption for girls.

The introduction of SEDP as a (sub)sector-wide approach (SWAp) was a noteworthy step forward in terms of comprehensive planning and integrated implementation for the secondary sub-sector. SEDP does not specifically include outcomes about extending universal and compulsory education up to grade eight or universal quality secondary education for all by 2030, a stated target of SDG4, or instituting a common core curriculum for all secondary level institutions, anticipated in the National Education Policy 2010. Effective implementation of SEDP will contribute towards these objectives. Further steps, timing and process of implementation in this respect are under consideration by the government. The targets in the ESP for secondary education reflect the steps towards the objectives.

There has been substantial improvement in enrolment of girls and boys in secondary education. However, acceptable rates of completion are yet to be achieved. The cycle dropout rate for secondary education has decreased from over 55 percent in 2009 to below 37 percent in 2018 (BANBEIS, 2018).However, low skills and competencies achieved by students, as well as the apparent disconnect of school experience with the transition from education to work, have resulted in large numbers of unemployed and underemployed youth (SDG4 Strategic Framework for Bangladesh).

OUTCOMES

The indicated ESP outcomes for secondary education (in alignment with the Policy Matrix) are divided into three broad categories, or sub-goals. The outcomes will be achieved through targeted interventions addressing the major challenges in the sub-sector.

The access and equity linked outcomes for secondary education are:

- All children, including children from disadvantaged groups and children with special educational needs, enrolled and retained in secondary education through Grade 8 and progressively higher numbers up to Grade 10 to reach goal of universal secondary education by 2030
- Suitable physical facilities and child-friendly learning environments available in all schools meeting the needs of all girls and boys, including children with disabilities, with adequate WASH, including for adolescent girls
- Alternative provision of primary and secondary education for out-of-school secondary age children to complete primary education and through Grade 8 along with life skills and pre-vocational education, linking where possible with the TVET stream
- Strengthened institutional capacity and enhanced coordination mechanisms to ensure continuity of education during and following natural calamities and other emergency situations

The quality and relevance linked outcomes for secondary education are:

- Measurable learning outcomes in Bangla, English, mathematics and science improved and soft skills taught effectively through competency-based curriculum and high quality textbooks and teaching-learning materials, including ICT and science labs
- Sufficient number of teachers in secondary education classes, skilled and qualified through pre-service teacher education and continuous professional development, including sufficient number of qualified subject teachers for Bangla, English, mathematics, science and ICT

- Improved formative assessment practices as part of teaching-learning process supplemented by improved summative assessments and high quality standardized educational assessment for system performance

The governance and system management linked outcomes for secondary education are:

- Progressive decentralization of functions with planning, management and financial authority to zonal, district, upazila and institutional levels with institutional strengthening at all levels including piloting appropriate models for decentralized planning and management
- Improved governance and management at all levels through capacity building of education officials and school management and collaboration with NGOs and academic and research institutions
- Increased budget allocation for secondary education along with greater efficiency and effectiveness in use of the budget

Baselines for secondary education are taken from BANBEIS data for 2019. Projected targets are based on SESIP and SEDP plans where applicable, considering that the ESP period extends past the current SESIP and SEDP timeframes.

ACCESS AND EQUITY

The Net Enrollment Ratio (NER) of the secondary education age group improved significantly from 49 percent in 2009 to 66 percent in 2018, but, despite high transition rates from primary to secondary, still only about two thirds of the age group is enrolled in school (BANBEIS, 2018). The NER for girls has remained higher compared to that of boys throughout this period. The government funded stipend programmes and tuition waivers for girl students have played an important role in this respect. Of the total number of students enrolled in 2018 in secondary education, 54 percent were girls. The cycle dropout rate for secondary education has decreased from over 55 percent in 2009 to below 37 percent in 2018 (BANBEIS, 2018). While the dropout rates for girls have been higher than for boys over the years, these two are converging.

Stipend projects for rural girls have over the past four decades played a major role in increasing the enrolment of girls in secondary schooling. One of the main objectives of the stipend projects was to achieve gender parity in the secondary phase. The growth in girls' participation is a positive development that reflects the changing values and attitudes related to the role and aspirations of women in society (DSHE ASPR, 2018). However, the relatively lower participation of boys (with gender parity index of 1.21 reported for 2017), along with the fact that many poor girls and boys are still unable to enroll and remain in secondary schooling needs attention (SESIP, 2020). A pro-poor stipend programme begun in 2009 operated alongside the stipend projects for rural girls has been helping to mitigate the boys' lower participation rates.

Work is underway to replace the various stipend projects with a Harmonized Stipend Program (HSP). Its aim is to disburse stipends to eligible secondary and higher secondary students in a harmonized manner, with one single rate, under one management and with one selection process. Eligible poor boys and girls from grades 6-12 including madrasahs will be awarded stipends irrespective of geographical boundaries. In addition, all students from small ethnic communities, trans-gender students and students with special educational needs will be eligible to receive stipends. HSP is expected to improve the transition rate from primary to secondary and between secondary grades and to raise the retention rate in higher grades. Unlike most primary schools,

secondary schools charge tuition fees, which have been risingin recent years. There are additional fees for examinations, and many parents also pay substantial sums for private tutoring. There are plans under HSP for a waiver of tuition fees for all secondary students from grade 6 through grade 12 and to provide for the examination fees.

Outputs

The following access and equity related outputs have been identified for secondary education for the ESP:

- Enrolment and retention of all children in the age group at junior secondary level (up to grade 8) by 2025
- Major expansion of enrolment and retention in grades 9 and 10 with significant progress toward universal enrolment for this level by 2030
- Applying affirmative strategies at secondary level (grades 6 to 10) for reaching and serving groups characterized by special educational needs, extreme poverty, disability, geographical, gender and ethnic disparity, integrated into sub-sector plans
- Providing second chance primary and secondary education for out-of- school children aged 12-18, including life skills and pre-vocational education, through non-formal education modes
- Facilities expansion and improvement to create a supportive learning environment in all secondary level institutions with adequate WASH provision, including for adolescent girls
- Plans for continuing education during emergencies in place and implemented as needed, including access to internet and educational technology

Targets

In order to achieve the above outputs, the following indicators have been set for targets, which are to be quantified for the ESP period:

- Improved net enrolment ratio in junior secondary education (grades 6-8) nationally—from 59% of all student, 55% of boys and 63% of girls in 2019 to 80% for all categories by 2025--and in each district
- Improved net enrolment ratio in secondary education (grades 6-8) nationally—from 39% of all student, 37% of boys and 40% of girls in 2019 to 70% for all categories by 2025--and in each district
- Increased number of schools equipped with adequate classrooms and facilities (furniture, electricity, science lab, computer lab, laboratory and library) school numbers and percentage of total – baseline to be established and with target of 70% by 2025
- Increased percentage of secondary schools with adequate safe and healthy environment as indicated with age and gender appropriate WASH blocks (disability friendly and with separate toilets and water points for female students and teachers and with menstrual management facilities), playgrounds and boundary wall -- baseline to be established and final year target set with annual phasing
- Increase in affirmative action plans for disadvantaged secondary level learners (other than disabilities) with increased number of beneficiaries – baseline to be established and final year target set with annual phasing and gender disaggregated

- Increase in affirmative action plans for secondary level learners with disabilities and increase in number of beneficiaries – – baseline to be established and final year target set with annual phasing and gender disaggregated
- Increase in percentage of schools with adequate and regular maintenance and repair funds, number and percentage of total –baseline to be established and final year target set with annual phasing
- All junior secondary and secondary classrooms transformed into multimedia classrooms

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Upazila-wise assessment of secondary education provisions and services for rationalized and coordinated expansion of provisions by 2025 to achieve access and equity targets
- Construction of an adequate number of classrooms and other facilities (with furniture, electricity, science lab, computer lab, laboratory and library)
- Construction of WASH blocks with adequate facilities for all students, including adolescent girls
- Provision of adequate funds for maintenance and repair of school buildings, classrooms, playgrounds and WASH facilities
- Implementation of harmonized stipends programme for poor and disadvantaged girls and boys in rural and urban areas through G2P method
- Development and implementation of plans for affirmative action for disadvantaged children and for children with special educational needs to ensure their enrolment and retention in secondary education
- Enrolment and provision of education for of out-of-school children in either secondary school or, for children who did not complete the primary cycle, in alternative non-formal education centers with equivalent standards as well as life skills and livelihood skills training
- All students provided with free cost books.

QUALITY AND RELEVANCE

The results of the public examinations at the end of grade 8 and grade 10 would indicate positive learning outcomes in the secondary sub-sector. However, the high pass rates mask low levels of achievement. As for the PECE at the end of grade 5, the passing mark for the secondary level national public exams is only 33%, which does not reflect acceptable competency in essential foundational skills, and many of the answers rely on rote memorization. Less than ten percent of students get the highest mark, which is closer to a more valid competency measure. Student learning assessment comparable to the NSA at the primary level has not been undertaken at the secondary level. However, the Learning Assessment of Secondary Institutions (LASI), conducted in 2015 with a sample of grade 6 students (the first year of the secondary stage) indicates the baseline of competence in Bangla and mathematics of secondary students is low (DSHE 2015).

Analysis of data from LASI 2015 shows that learning outcomes at junior secondary level leave much room for improvement (Bhatta, et al, 2019). The LASI data show that in 2015, around 24 percent, 30 percent, and 7 percent of grade 6 students performed at below grade level in mathematics, English, and Bangla, respectively. It has been observed that student effort and

regular student attendance produce differences in learning at the junior secondary level. Key factors that affect quality of instruction at this level are noted below.

- School quality (overall learning environment at the school) matters. LASI shows that outcomes vary significantly across schools of the country.
- Teacher adequacy is also a major factor that contributes towards learning outcomes. Schools having an adequate number of teachers assigned for subjects have done better.
- Home factors such as reading habit at home also affect learning outcomes to a significant extent (Bhatta, et al, 2019).

SEDP is providing support for further strengthening and the institutionalization of learning assessment. LASI has been renamed the National Assessment of Secondary Students (NASS). NASS 2019 was carried out with a nationally representative sample of grade 8 and grade 10 students in English, Bangla and mathematics and the results should be published soon. The next NASS will be conducted in 2021.

Building upon the experience gained from conducting the NSA, LASI and NASS rounds, participation in an appropriate way in the international assessments is under consideration. The best way to benefit from an association with international assessments such as the Program for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) must be examined. Participation in regional assessments could also be considered. The NSA and NASS could be adapted to the international assessment methodology and test items in order eventually to better judge where Bangladesh stands vis-a-vis its own learning objectives and in comparison, with other countries. More important, however, is to analyze the assessment results and use these to identify the weaknesses in the system and to take remedial measures.Institutional and technical capacity for this purpose has to be developed involving the education boards, NCTB and academic institutions.

The sub-sector programme initiated in 2018 recognizes that quality improvement is neither linear nor simple. It requires interventions on many fronts simultaneously. For example, students' learning motivation and skills cannot be developed without valid and reliable assessment of learning. It emphasizes that standards of teacher performance and training, monitoring, and incentives based on performance standards are as necessary as provision of safe drinking water and toilet facilities in schools (SEDP, 2018). It points to the necessity of addressing all the key constraints through a comprehensive programme with improvement of learning outcomes at its heart.

The challenges related to quality are aggravated in secondary education due to two factors. Firstly, often the primary education completers do not have the pre-requisite entry level competencies for secondary education even in the core subjects of language and mathematics, as shown by the results of the NSA. Secondly, the increase in subjects in the curriculum in the secondary stage, and its subject-based structure, require that the teachers at the secondary level are qualified and trained in specific subjects. The inadequate number of subject teachers, especially in key subjects such as mathematics, science, English and computer skills, impacts negatively on the quality of learning. SEDP has identified a number of areas for quality improvement including i. Curriculum reform; ii. Teacher quality, capacity, and management; iii. Examinations and assessments; and iv. Better teaching-learning in key content areas -- Bangla, English, mathematics, science and ICT (SDG4 Strategic Framework for Bangladesh; SEDP, 2018).

A move has been taken to introduce a common integrated curriculum up to grade ten and to delay streaming of students into disciplinary areas (science, humanities, business, etc.) until grade 11, rather than at grade 9 as at present. This is a positive step towards building a common foundation of basic competencies for all students and not requiring young people to make future career choices too early. The success of this reforms in secondary education will depend on adequate provisions for qualified subject teachers, especially for English, Bangla, science, mathematics and ICT, subjects in which student performance has remained deficient. The sub-sector programme particularly emphasizes the importance of qualified and effective teachers and sound pedagogy in the classroom. Provisioning adequate subject teachers with the appropriate subject background, paying careful attention to teacher development through well-designed pre-service and in-service training programmes, providing a career path for teachers, effective and standards-based teacher performance monitoring, providing opportunities for mentoring, and ensuring their regular presence in the classroom are seen as critical to improving teaching and learning.

The long-standing integrated subject-based teacher deployment policy has created an imbalance between supply and demand of subject-based teachers, especially in non-government secondary schools. There is an oversupply of teachers in some subject areas, an undersupply in other areas and a clear disparity in the deployment of subject based teachers between government and non-government schools. This especially affects rural secondary schools, resulting in shortages of teachers in key subject areas, including mathematics, science, English, ICT and business education. These shortages in turn negatively affect the learning outcomes. When deploying additional teachers, proper rationalization is needed considering the demand and supply of subject-based teachers in each of the institutions. This will also help to rationalize the STR in key subject areas, which is extremely high in non-government secondary schools. (DSHE ASPR, 2018)

In terms of teachers the secondary education sub-sector is traditionally male dominated, having only 24% female teachers (DSHE, 2018). Less than 7 percent of head teachers are female in non-government secondary schools, whereas in public schools it is 44 percent. Studies internationally indicate that there is a significant correlation between the number of female teachers and girls' educational participation and achievement. Specific strategies are needed for increasing the number of female teachers, including consideration of introducing a quota for female teachers in secondary education, based on the positive effects of the policy in primary education. (DSHE ASPR, 2018)

International experience suggests that, for attracting talented young people, both male and female, to teaching as an occupation, education should become a discipline in the regular undergraduate tertiary education sub-sector along with measures for ensuring status, rewards and a career path in the teaching profession. The quality of the academic programme and facilities in these tertiary institutions must be maintained to achieve the results. This is discussed in more detail in chapter 4 as a cross-cutting issue.

The improvement of physical facilities is urgently needed in many secondary education institutions. A survey of needs along with approximate costing needs shows that not all schools do not have functioning science laboratories, and the ICT facilities are very limited. Most institutions do not have a functioning library and do not promote extracurricular book reading and cultural activities. Students are not motivated to read books beyond their syllabus. There is a very limited practice of reading in families and society in general does not promote reading culture (DSHE, 2019). A pilot scheme has been initiated to strengthen the reading habits of

secondary students and to improve their reading skills through the provision of books for independent reading, which should be evaluated and scaled up to cover all secondary students.

Outputs

The following quality and relevance related outputs have been identified for secondary education for the ESP:

- Ensuring sufficient numbers of qualified teachers, including higher numbers of female teachers, with attention to key subject areas, their pre-service teacher education and their continuing professional development
- Curriculum and learning materials development and availability with an emphasis on core competencies to be acquired by all secondary school learners including supplementary reading materials to nurture lifelong reading habits
- Learning assessment reform balancing formative and summative assessment, with attention to acquiring core competencies
- Continued improvement in achievement of grade level competencies in grade 8 and grade 10 in Bangla, English, science and mathematics

Targets

In order to achieve the above outputs, the following targets have been set:

- Increased completion rates for secondary education – from 63% of all students, 64% of boys and 62% of girls in 2019 to 80% for all categories by 2025
- Increased number and percentage of schools with manageable class sizes of <30 students per class – baseline to be established with target for >50% by 2025
- Increased number of junior secondary and secondary teachers with qualifications in key subject areas and with higher proportions of female teachers
- Numbers and percentages of junior secondary teachers with pedagogy training – from 26% of all teachers, 26% of males and 27% of females in 2019 to 100% of all categories by 2025
- Numbers and percentages of secondary teachers with pedagogy training – from 73% of all teachers, 71% of males and 76% of females in 2019 to 100% of all categories by 2025
- Increased percentages of teachers with in-service/continuous professional development (for categories of training) -- baseline to be established with target of 100% by 2025 with annual phasing, total and by gender
- Lower student-teacher ratios and ratios of students to trained teachers -- baseline to be established with target of 100% by 2025 with annual phasing, total and by gender
- Development and expansion of on-line teacher professional development and engagement through internet-based teachers' portal—introduction and phasing over five years
- Increased numbers and proportions of classes using supplementary learning materials and learning aids, including ICT for digitization of education -- baseline to be established with target of 100% by 2025 with annual phasing
- Development, trial and application of secondary students and school assessment tools, summative and formative, shifting away from rote learning and reliance on private tutoring with training for teachers—introduction and phasing over five years

- All schools with plans and application of formative assessment – from baseline in 2020 to 100% with plan and implementation started by 2025
- Increased percentages of learners achieving grade level competencies in Bangla, English, science and mathematics at grades 8 and 10— baseline 2019 NASS with >70% of all students achieving acceptable levels in each subject by 2025
- Introduction of compulsory pre-vocational and vocational course in secondary education and preparation of institutes with necessary logistics
- Revision of curriculum – as a continuing process, with stronger articulation, reduced content load, effective implementation, school-based learning assessment and emphasis on both classroom and co-curricular learning—phased implementation over five years
- Continuous dissemination of curricular and supplementary materials and teacher orientation including teachers' guides (print and on-line)—continuous over five year
- Development of district-based trainer pools and training materials for curriculum dissemination and teacher orientation—introduction and phasing over five years

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Provision of pre-service teachers' education in sufficient numbers for each subject to meet the needs of secondary education current enrolment and increases in future enrolment
- Recruitment of fully qualified subject teachers in sufficient numbers for each subject to meet the needs of secondary education current enrolment and increases in future enrolment
- Provision of general and subject specific continuous professional development for teachers of all subjects with emphasis on critical thinking and other soft skills and subject specific skills
- Development and piloting of on-line teacher professional development and engagement through internet-based teachers' portal, evaluation of pilot and expansion
- Review, revision and development of curriculum, textbooks and other teaching-learning materials with a focus on critical thinking and subject specific competencies
- Provision of books for independent reading and other supplementary learning materials and learning aids from government and non-government sources
- Development, trial and application of secondary students and school assessment tools, summative and formative, as disincentive to rote learning and private tutoring
- Development and implementation of sample-based assessment of student achievement in Bangla, English, science and mathematics at grades 6, 8 and 10 through valid and reliable instruments which enable comparison across geographical areas and time
- Revision of curriculum with the aim of common core competencies for all students up to grade ten without separate tracks; emphasis on curriculum development as a continuing process, with stronger articulation, reduced content load, effective implementation, school-based learning assessment and emphasis on both classroom and co-curricular learning—phased implementation over five years
- Planning for and setting up district-based trainer pools and training materials for curriculum dissemination and teacher orientation

GOVERNANCE AND SYSTEM MANAGEMENT

As in the primary sub-sector, secondary education is managed through a centralized system, although over 90% of the schools were set up by community initiatives and are run by respective managing committees. In recent years, steps have been taken to improve governance and management of secondary education with the decentralization of some functions, such as Monthly Pay Order (MPO) implementation, the introduction of government e-procurement, and digitizing of budgeting and accounting for implementation of the Integrated Budget Accounting System (iBAS). However, SEDP notes that the governance, management, planning, monitoring, budgeting and service delivery of the sub-sector still remain fragmented and uncoordinated at different levels (DSHE ASPR, 2018). Also, there is a significant share of teachers financed by school fees and, consequently, school-paid teachers are significantly underpaid relative to MPO teachers (DPE, 2018). This needs to be addressed either through an increase in the number of teachers covered by the MPO and/or provision by the schools of higher pay for teachers that they pay independently of the MPO. DSHE could set pay guidelines for this.

There is an urgent need for further streamlining and capacity building at central, regional, and institution levels. An adequate chain of command and authority is yet to be properly established and delegated to the zonal offices. The performance of zonal, district and upazila education offices is not adequately monitored even for compliance assurance. Effective school performance monitoring and academic supervision by the field level officials remains a significant challenge. (DSHE ASPR, 2018)

Further decentralization and capacity building are the priority needs in the area of governance and system management. In a sub-sector in which most of the institutions are nominally private, further development of effective models of public-private partnership (PPP), including with NGOs, represents a way of improving governance and management to address many of the challenges in secondary education. Further developing effective models for decentralized planning and management is envisaged in the ESP.

Outputs

The following governance and system management related outputs have been identified for secondary education for the ESP:

- Capacity-building at different levels, especially, at zonal, district and upazila levels andteacher training institutions for training, management support, supervision and inspection for quality secondary education
- Collaboration with academic and research institutions with capabilities and interest in secondary education to strengthen capacities for training, supervision and professional support to secondary education personnel
- Ensuring adequate budget for the sub-sector, including for enough teachers on the MPO and establishing criteria for allocations and introducing result-based financial management
- Developing and applying a governance model that displays the best features and minimizes the negative aspects of public-private partnerships to ensure secondary education with quality and equity

Targets

In order to achieve the above outputs, the following targets have been set:

- Functioning resource team in each upazila comprising upazila education officials, teachers training institutions, higher education institutions and active NGO personnel–introduction, piloting and phased implementation over five years
- Strengthened DSHE central, zonal, districtandupazila education offices for managing and administering the secondary education system effectively and efficiently through decentralization—phased implementation over five years
- Nationwide implementation of leadership capacity building programmes for head teachers and School Managing Committees (SMC)—phased implementation over five years with annual and final targets
- Functioning of system of per student minimum annual allocation and expenditure for quality secondary education and increase of allocations annually—baseline and final year with annual phasing
- Increase in number of institutions receiving and utilizing according to set criteria performance grants for meeting accountability requirements and performance indicators

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Development of a resource team in each upazila comprising upazila education officials, teachers training institutions, higher education institutions and active NGO personnel to supervise, support train secondary education workforce
- Assessment of needs and development of training and skill upgrading for resource teams to strengthen their capacity to support quality secondary education
- Strengthening the DSHE central, zonal, district and upazila/thana education offices to manage and administer the secondary education system effectively and efficiently through decentralization
- Development and implementation of school leadership capacity building programmes with head teachers as school leaders and School Managing Committee as the focal point for school's community accountability
- Establishment of per student minimum annual allocation and expenditure for quality secondary education and increase of allocations annually
- Development of model of upazila-based secondary education planning, budgeting and management with progressively greater authority to schools with the initiation of piloting in selected upazilas, aiming for national replication
- Development and piloting of a model of public-private partnership by assessing and building on present MPO- based public subsidies, aiming for adequacy of resources, efficient use of resources and stronger public accountability

3.4 HIGHER SECONDARY EDUCATION

CURRENT STATUS

The number enrolled in general higher secondary has increased from 485 thousand in 2009 to over 780 thousand in 2019, and an additional 655 thousand students are enrolled in Alim, the madrasah higher secondary education stream (BANBEIS, 2019). Over 90 percent of the students at the higher secondary level are enrolled in non-government institutions. Government institutions constitute approximately 35% of all institutions at this level with 65% of the

institutions being private. The government institutions, serving 10 percent of the students, are more competitive in respect of admission and their personnel provisions and facilities are better compared to non-government institutions.

The overwhelming majority of the higher secondary level courses are offered in non-government colleges. Some sections are attached to secondary schools and others are part of degree level tertiary institutions. As in the case of secondary schools, the non-government colleges receive considerable government subsidies for teachers' salaries and capital investments. Over the years there have been fewer projects supporting the improvement of higher secondary education than for secondary and in general projects have been for either secondary or for higher secondary. The current SEDP however covers some aspects of higher secondary education.

CHALLENGES

The challenges in higher secondary education are like those facing secondary education. Considerable expansion in higher secondary education has been achieved, but much more needs to be done to make this stage of education more market relevant. The cycle dropout rate for higher secondary level has declined significantly from 42 percent in 2009 to below 20 percent in 2018 (BANBEIS, 2018). While this reduction is commendable, it must also be noted that the ratio remains alarmingly high, especially for girls, considering that the higher secondary education phase is only for two years. The proportion of female teachers remains at only a quarter of the total. Effective student teacher ratios in classrooms, because of the need for subject-specific teachers, are arguably even a more serious problem at this level than at the secondary level.

The policy emphasis on increased enrolment at secondary and higher secondary level appears to rely on 'vocationalizing' this level with increased vocational content in curricula and expanding the vocational stream in general schools (distinct from polytechnics and vocational and technical institutions). Some crucial questions need to be answered in this respect. These include what kind of vocationalization is on offer and how it responds to the employment market, what choices are attractive to students, how vocational streams in general secondary/higher secondary and in the polytechnics relate to and complement each other, and how these can be delivered effectively. There are also questions of capacity of the higher secondary system to manage the vocational stream. Experiences of the secondary vocational stream need to be critically examined including tracking of the completers.

OUTCOMES

The indicated ESP outcomes for higher secondary education (in alignment with the Policy Matrix) are divided into three broad categories, or sub-goals. The outcomes will be achieved through targeted interventions addressing the major challenges in the sub-sector.

The access and equity linked outcomes for higher secondary education in Bangladesh are:

- Increased enrolment and retention in Grades 11 and 12, with an appropriate balance between humanities and science streams and general and vocational streams, including adolescents from disadvantaged groups and those with special educational needs, to reach enrolment of at least 75% of age group by 2030
- Suitable physical facilities and supportive learning environments for all subjects, including science, English, mathematics, ICT and vocational subjects, in all institutions, meeting the needs of all students, including those with disabilities, with adequate WASH, including for adolescent girls

- Strengthened institutional capacity and enhanced coordination mechanisms to ensure continuity of education during and following natural calamities and other emergency situations

The quality and relevance linked outcomes for higher secondary education in Bangladesh are:

- Improvement in measurable learning outcomes, particularly in English, mathematics, science and vocational subjects, improved through competency-based curriculum and high-quality textbooks and teaching-learning materials, including ICT and science labs, and assessment reform to make assessments competency-based
- Sufficient number of teachers in higher secondary education classes, appropriately skilled and qualified through initial teacher education and continuous professional development for their subjects, including sufficient number of qualified subject teachers for English, mathematics, science, ICT and vocational subjects
- High quality standardized educational assessment for system performance and improvement and improved formative and summative assessment practices as part of the teaching-learning process

The governance and system management linked outcomes for higher secondary education in Bangladesh are:

- Progressive decentralization of functions with planning, management and financial authority to district, upazila and institutional levels with institutional strengthening at all levels
- Improved governance and management at all levels through capacity building of education officials and institution management and through collaboration with NGOs and academic and research institutions
- Increased budget allocation for higher secondary education along with greater efficiency and effectiveness in use of the budget

Baselines for higher secondary education are taken from BANBEIS data for 2019. Projected targets are based on SEDP other project plans where applicable, considering that the ESP period extends past the current SEDP other projects timeframes.

ACCESS AND EQUITY

The NER for higher secondary level of the designated age group of 16-17 years has significantly improved from 18 percent to 34 percent between 2009 and 2018. However, the NER for girls was slightly lower than for boys, in contrast to the situation at the secondary level (DSHE, 2018). Less than 20 per cent of adolescents between the ages of 16—17 years are attending grades 11 and 12. Families show a preference for investing in higher education for male children (Al-Zayed, et al., 2018). The cycle dropout rate for higher secondary level has declined significantly from 42 percent in 2009 to below 20 percent in 2018 (BANBEIS, 2018). The dropout rate for girls is higher, but the gap is closing gradually.

Outputs

The following access and equity related outputs have been identified for higher secondary education for the ESP:

- Access for defined percentages of higher secondary level students (grades 11-12), with appropriate balance among streams, by 2025, aiming for three quarters of the age group participating in higher secondary by 2030
- Applying affirmative strategies at higher secondary level for reaching and serving groups characterized by special needs, extreme poverty, disability, geographical, gender and ethnic disparity, integrated into the sub-sector plans
- Facilities expansion and improvement to create a supportive learning environment in all higher secondary level institutions with adequate WASH provision, including for adolescent girls
- Plans for continuing education during emergencies in place and implemented as needed, including access to internet and educational technology

Targets

In order to achieve the above outputs, the following indicators have been set for targets, which are to be quantified for the ESP period:

- Increased net enrolment ratio in higher secondary education (grades 11-12) – from 26% of all students, 27% of boys and 26% of girls in 2019 to 50% for all categories in 2025
- Increased percentage of institutions equipped with adequate classrooms and facilities (with furniture, electricity, science lab, computer lab, laboratory, library) – baseline to be established with target of 70% of institutions by 2025
- Increased percentage of schools with safe and healthy environment (with age appropriate WASH blocks, playground and boundary wall -- baseline to be established with target of 70% of institutions meeting criteria by 2025
- Affirmative action for disadvantaged higher secondary level learners (other than disabilities) and increased number of beneficiaries – base year and final year with annual phasing by gender, geography, income quintile (baseline may have to be estimated)
- Affirmative action for higher secondary level learners with disabilities and increased number of beneficiaries by gender, geography, income quintile– base year and final year with annual phasing (baseline may have to be estimated)
- Increased percentage of higher secondary institutions with adequate and regular maintenance and repair funds, number and higher percentage of total –baseline to be established with target of 70% of institutions by 2025

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Construction of an adequate number of classrooms and other facilities to ensure enrolment of all children of higher secondary age group (with furniture, electricity, science lab, computer lab, laboratory and library)
- Construction of WASH blocks with adequate facilities for all students, including adolescent girls
- Provision of funds for maintenance and repair of buildings, classrooms, playgrounds and WASH facilities
- Implementation of harmonized stipends programme for poor and disadvantaged girls and boys in rural and urban areas

- Development and implementation of plans for affirmative action for disadvantaged children and for children with special educational needs to ensure their enrolment and retention in higher secondary education
- Development and enhancement of a sufficient number of quality training facilities with the necessary logistics throughout the country

QUALITY AND RELEVANCE

In general, the challenges facing secondary education are similar to those for higher secondary education. On an average one thousand teachers annually joined the higher secondary level between 2009 and 2018, and the total number of teachers stood at over 42 thousand in 2018. The proportion of female teachers remains at only a quarter of the total. Effective student teacher ratios in classrooms, because of the need for subject-specific teachers are arguably even more acute at this level than at the secondary level. (BANBEIS, 2018.)

The pass rate for the Higher Secondary Certificate (HSC) examination shows a slight declining trend and a widening gender gap favouring girls at least since 2012. The significance of this is not clear and requires further investigation. On an average 71 percent of students have passed the HSC examinations during the period from 2009 to 2018. On an average 7 percent of the students passing HSC have scored GPA 5. The pass rate for Alim, the equivalent exam in the madrasah system, also shows a declining rate in the same period. On an average, the pass rate is 87 percent, which is still higher than that of HSC. Around five percent of the students passing the Alim examination between 2009 and 2018 had scored a GPA 5. (BANBEIS, 2018.)

Outputs

The following quality and relevance related outputs have been identified for higher secondary education for the ESP:

- Ensuring enough qualified teachers, with attention to qualified teachers for key subject areas, better gender balance and their continuing professional development.
- Curriculum and learning materials development and availability with an emphasis on core competencies to be acquired by all higher secondary school learners, well-prepared for further education or moving into the world of work
- Learning assessment reform balancing formative and summative assessment, with attention to acquiring core competencies, both for further education and the world of work
- Improvement in achievement of grade level competencies in grade 12 in Bangla, English, science and mathematics

Targets

The following indicators have been set for targets, which are to be quantified for the ESP period:

- Reduced drop-out rates in higher secondary education – from 20% of all students, 20% of boys and 19% of girls in 2019 to <10% in 2025
- Increased numbers of teachers per 1,000 students with subject qualifications for key subjects of mathematics, science, English and IT—baseline and target to be established with annual phasing and disaggregation by gender

- Increased percentages of higher secondary teachers with pedagogical training and teacher qualifications (BEd, MEd or equivalent) -- baseline to be established with annual phasing and disaggregation by gender to achieve 80% by 2025
- Percentages of higher secondary teachers with in-service/continuous professional development (for categories of training) -- baseline to be established with annual phasing and disaggregation by gender to achieve 100% by 2025
- Increased number of institutions with manageable class size with STR of <30:1 per shift – baseline to be established with aim of 60% of institutions by 2025
- Increased numbers and proportion of classes using supplementary learning materials and learning aids, including ICT resources --baseline to be established with target of 100% by 2025 with annual phasing
- Development, trial and application of secondary students and institution assessment tools, summative and formative, as disincentive to rote learning and private tutoring – introduction and phasing over five years
- Increased number of institutions with plans and application of formative assessment -- baseline to be established with target of 100% by 2025 with annual phasing
- Revision of curriculum – as a continuing process, with stronger articulation, reduced content load, effective implementation, institution-based learning assessment and emphasis on both classroom and co-curricular learning—phased implementation over five years
- Development of district-based trainer pools and training materials for curriculum dissemination and teacher orientation—introduction and phasing over five years

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Development and provision of pre-service teachers' education in sufficient numbers for each subject to meet the needs of higher secondary education current enrolment and increases in future enrolment
- Recruitment of fully qualified subject teachers in sufficient numbers for each subject to meet the needs of higher secondary education current enrolment and increases in future enrolment
- Provision of general and subject specific continuous professional development for teachers of all subjects with emphasis on critical thinking and other soft skills and subject specific skills
- Review, revision and development of curriculum, textbooks and other teaching-learning materials with a focus on critical thinking and subject specific competencies
- Development, trial and application of secondary students and institution assessment tools, summative and formative, as disincentive to rote learning and private tutoring
- Revision of curriculum – as a continuing process, with stronger articulation, reduced content load, effective implementation, institution-based learning assessment and emphasis on both classroom and co-curricular learning—phased implementation over five years
- Development of district-based trainer pools and training materials for curriculum dissemination and teacher orientation

GOVERNANCE AND SYSTEM MANAGEMENT

Higher secondary education is governed and managed through the same systems as secondary education. As such, the challenges are very similar. The governance, management, planning, monitoring, budgeting and service delivery of the sub-sector is fragmented, and there is an urgent need for further streamlining and capacity building at central, regional, and institution levels. Effective institution performance monitoring and academic supervision by the field level officials is a significant challenge (DSHE ASPR, 2018). Further decentralization and capacity building are the priority needs in the area of governance and system management.

Outputs

The following governance and systems management related outputs have been identified for higher secondary education for the ESP:

- Capacity-building at different levels, especially, at district and upazila levels, teacher training institutions and the education boards, for training, management support, supervision, and inspection for quality higher secondary education
- Collaboration and involvement of NGOs, and academic and research institutions with capabilities and interest in higher secondary education to strengthen capacities for training, supervision and professional support to higher secondary education teachers and other personnel
- Ensuring adequate budget for the sub-sector, establishing criteria for allocations and introducing result-based financial management
- Developing and applying a governance model that displays the best features and minimizes the negative aspects of public-private partnerships to ensure higher secondary education with quality and equity

Targets

In order to achieve the above outputs, the following indicators have been set for targets, which are to be quantified for the ESP period:

- Functioning resource team in each upazila comprising upazila education officials, teachers training institutions, higher education institutions and active NGO personnel–introduction and phased implementation over five years
- Strengthened DSHE central, zonal, district and upazila education offices for managing and administering the secondary education system effectively and efficiently through decentralization—phased implementation over five years
- Nationwide implementation of leadership capacity building programmes for heads of institutes and Institution Managing Committee (SMC)—phased implementation over five years with annual and final targets to be set
- Functioning of system of per student minimum annual allocation and expenditure for quality secondary education and increase of allocations annually—baseline and final year targets to be set with annual phasing
- Development and piloting of model of upazila-based secondary education planning, budgeting and management—annual phasing and final year target to be set after introduction of pilot
- Number of institutions receiving and utilizing according to set criteria performance grants for meeting accountability requirements and performance indicators

Activities

The following activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Development of a resource team in each upazila comprising upazila education officials, teachers training institutions and higher education institutions to supervise, support and train the secondary education workforce
- Assessment of needs and development of training and skill upgrading for resource teams to strengthen their capacity to support quality secondary education
- Strengthening the DSHE central, zonal, district and upazila education offices to manage and administer the higher secondary education system effectively and efficiently through decentralization
- Development and implementation of institution leadership capacity building programmes with heads of institutes as institute leaders and Institution Managing Committee as the focal point for institution's community accountability
- Establishment of per student minimum annual allocation and expenditure for quality secondary education and increase of allocations annually
- Development of model of upazila-based secondary education planning, budgeting and management with progressively greater authority to institutions
- Higher secondary education institutions receiving and utilizing according to set criteria performance grants for meeting accountability requirements and performance indicators

3.5. MADRASAH EDUCATION

CURRENT STATUS

At present, there are two main types of Islamic faith-based madrasah education institutions in Bangladesh. Apart from the traditional mosque-connected maktabs for instruction on the Quran and religious rites for young children, most of whom also go to regular primary schools, there are government supported Aliya madrasahs, providing a full range of education from primary to tertiary. There is also the Qawmi madrasah system, which also offers pre-primary to tertiary programmes, but shuns government support or supervision. All of these have historical roots going back to the colonial period.

Madrasah Education is an important education subsector in Bangladesh. This subsector is large, catering to over 4.8 million students including the Ebtedayee (primary) level. The total institutions offering post-primary madrasah education, collectively known as the Aliya madrasah, was 7,820 in 2002 which rose to 9,278 in 2019, while independent Ebtedayee madrasah number was about 1,500 which received government subsidy. Ebtedayee madrasah offers the primary equivalent while post-primary madrasah covers the secondary, higher secondary and tertiary equivalent in the general education stream. (BANBEIS, National Education Statistics, 2019)

Qawmi madrasahs operate outside the government system and regulations. The word 'Qawmi' has its origin in the Arabic word 'qawmun' meaning 'nation.' Therefore, the appropriate meaning of Qawmi madrasah is national madrasah or national educational institution. Qawmi madrasahs do not seek government assistance and insist on remaining free from government influence. They are run with the financial support from pious Muslims and national and international

philanthropy. They claim to represent the heritage of Islamic education going back to the medieval period and the indigenous Muslim education that developed during the British colonial period in South Asia. Many in the Muslim community at that time shunned the education system introduced by the colonial rulers (ASB, 2012).

The Aliya madrasahs operate parallel to mainstream general education and follow the curriculum and syllabus framed for them under government auspices giving prominence to Islamic religion. There are five stages in Aliya madrasahs, namely, Ebtedayee (5-year primary), Dakhil (5- year secondary), Alim (2-year higher secondary), Fazil (3 year- undergraduate/4 years, in case of Honours), and Kamil (2-years post graduate/1 year, in case of Honours). National curricula and syllabi were introduced in the Aliya Madrasahs in 1975 as recommended by the Education Commission chaired by Qudrat-e-Khuda, incorporating the main subjects of the secular education system, but retaining the religious contents of the madrasah (Qudrat-e-Khuda et al, 1974). Textbooks are prepared by the Bangladesh Madrasah Education Board (BMEDB), which also conducts the public examinations equivalent to those for general education.The1974 report of the Education Commission of the newly independent Bangladesh is credited with proposing reforms in madrasah education to make it compatible with the needs of the modern times. The proposals included the following measures:

- Introducing the syllabus followed by the other education institutions of the country in the madrasah.
- Use of Bangla as the medium of education at all levels, replacing the prominence of Urdu.
- Introduction of religious education as a form of vocational training at the secondary level.
- After completion of eight years of primary schooling, three years of further religious education as vocational training for madrasah students. (Qudrat-e-Khuda et al, 1974)

The premise underlying the commission's recommendations was that madrasah education, besides having an emphasis on Islamic religious content, would be a form of vocational education to serve the needs of society for occupations and service providers related to the observance of Islam – religious instructors for children in maktabs or as private tutors, imams and muezzins of mosques, quazis (Islamic marriage registrars) and others to perform Islamic religious rites and rituals at various religious and social occasions. The students of madrasahs who aspired to other occupations could transfer to general education at any stage or go on to general tertiary education institutions. The Qudrat-e-Khuda Commission did not envisage a system of education from primary to tertiary parallel to the mainstream system. It said little about the Qawmi system, which did not seek government support and was wary of any government oversight. Neither the Aliya nor the Qawmi streams were prominent in terms of number of institutions and enrollment at that time.

There was a change in the political context in the country in August,1975, when the founding father of the country, Bangabandhu Sheikh Mujibur Rahman, was assassinated and a military-backed regime took power and ruled the country until 1990. There was a resurgence of faith-based education, both in the government supported Alia and the Qawmi streams. There appeared to be an encouragement for madrasahs of all kinds by the government. Moreover, too little was done to improve the quality, accessibility and affordability for poor families in the general primary and secondary schools.

The National Education Policy 2010 departed from the basic premises of the Qudrat-e-Khuda Commission that madrasah education would be a vocational stream rather than a full parallel

system. The NEP recommended steps for improving madrasah education as equivalent to the general system and proposed the establishment of a new affiliating university for higher level madrasah education. The Islamic Arabic University, set up as an Arabic language university in 2013, was repurposed for the role of the affiliating university, and construction of a new campus for it in the Keraniganj suburb of Dhaka was approved by the government in 2017. (MoE, 2010; *Dhaka Tribune*, 18 October 2017)

Regarding Qawmi madrasahs, the NEP suggested setting up a commission to study and propose measures for the Qawmi system development as an independent system. Clearly, the realities on the ground in the intervening years since 1975 had overtaken the premises and values regarding madrasah education underlying Qudrat-e-Khuda's vision for educational development.

The Ministry of Education and BANBEIS data indicate that out of about 28,000 institutions under the MPO roll of the Ministry of Education, with a monthly spending of BDT 940.4 crore, madrasahs comprised around one-fourth with about 120,000 teachers and 40,000 staff benefiting from MPO (grade 6 to graduate level). In addition, there are primary level independent Ebtedayee madrasahs, 1,519 of which, with 4,529 teachers, are MPO beneficiaries, out of a total of around 6,378 such intuitions (BANBEIS, Bangladesh Education Statistics 2019).

CHALLENGES

The government has undertaken multi-pronged initiatives to strengthen the Aliya madrasah system. The Ministry of Education has established the new Technical and Madrasah Education Division (TMED) and a Directorate of Madrasah Education (DME) to supervise madrasah education.

The government supported Aliya madrasah system has made progress in balancing its religious curriculum contents with that of general education. However, its institutional capacity to deliver the expected outcomes is more challenging than in the general education system. Apart from the curriculum burden resulting from a full load of the general education content plus the religious content, inadequacy in teacher quality and number and other learning resources pose a great challenge.

An ADB (2011) study on madrasahs identified specific problems faced by the madrasahs:

- Lack of adequate training in teaching methodology of most madrasah teachers.
- Not using the same textbooks and examination questions for non-religious subjects as in general schools.
- Limits to the capacity of BMEB to plan, manage, monitor and evaluate Aliya Madrasah education.
- Madrasahs failing to complete their education content and syllabi during the academic year and at each stage.
- Aliya madrasah students at both primary and secondary levels disadvantaged by lack of physical facilities not adequately equipped for teaching and learning.

The systemic constraints regarding the quality of madrasah education have to do with the limitations in institutional and human resource capacity as well as lack of infrastructural facilities. For instance, there is no provision for stipends and feeding programmes for madrasahs similar to those in government schools. Only one fourth of Ebtedayee madrasahs received block grants for

operations and maintenance. The salaries for madrasah head teachers and teachers are substantially less than for their counterparts in the government schools.

There is clearly a need to reconfigure madrasah education making it consistent with the equity and quality principles espoused in the education policy. The newly established TMED has been assigned the responsibility of facilitating actions on strategies and policies related to madrasahs that are consistent with the national education strategies, such as Vision 2021, the Perspective Plan of Bangladesh 2010-2021, the National Skill Development Policy 2011 and the 7th Five Year Plan.

There is a consensus that substantive improvement in the Aliya Madrasahs system will require a comprehensive approach. The range of issues needing attention includes policy and planning, access and equity, gender, curriculum and teacher training, as well as physical facilities and learning materials. Monitoring and evaluation and education management information system (EMIS) also need attention. BMEB has broad responsibility for these areas for the school-level stages in the Alia madrasahs. The Islamic Arabic University, as the affiliating body for higher madrasah education, has the task of conducting academic supervision, examinations, and certification at the tertiary, Kamil and Fazil, levels of madrasah education. Both organizations need significant capacity improvement.

The above discussion points to three-fold questions concerning madrasah education:

a. With about one-third of young people currently in some form of madrasah education, what can be done to ensure that these large numbers are prepared for a productive and rewarding life as individuals, workers, responsible members of community, and citizens?
b. What is an appropriate balance for participation of students between madrasahs and the general stream and how the policy and decisions should be determined about allocating government support and resources?
c. Recognizing the social demand for diversity in education including the roles for Alia and Qawmi madrasah, how can madrasah education be made relevant and responsive to the needs and circumstances of the evolving world of work and building a prosperous and modern society in the 21st century?

It should be noted that the political economy of madrasah education development, reconciling a level of social demand and the imperatives of a modern society, is complex and sensitive. Forging a consensus with the right balance has been difficult. A different form of vocationalization than what was anticipated by the Qudrat-e-Khuda Commission is a preferred objective, but a workable model for this has not emerged. These considerations have to be kept in view for outcomes and targets proposed in ESP.

OUTCOMES

Based on the above narrative, the planning for madrasah education aims at the following outcomes:

- Effective support to madrasah education services considering trends in social demand and consideration of an appropriate balance between general and madrasah education enrollment.
- Effective support for acquiring of core competencies by madrasah students in line with common national objectives for all secondary level students in the country.

- Improved quality of government-supported madrasah education at different levels with focus on teachers' skills and competencies, curricular content and objectives, and student learning outcomes and their assessment.
- Devising workable approaches to integration of technical and vocational content into madrasah education to facilitate the madrasah graduates' transition into gainful employment.
- Strengthened governance and management capacity for madrasah education focusing on the role and functions of the Madrasah Education Board and the Islamic Arabic University, management and accountability at the institution level and adequacy and effective use of resources for quality education.
- Encouragement for Qawmi madrasah governance and management approach that fulfills parents' and students' expectations and protects student wellbeing, safety and security abiding by child rights' principles.

Keeping the challenges and outcomes in view, the outputs and targets for madrasah education within the frame of the three pillars of ESP – access and equity, quality and relevance, and governance and system management – are considered.

ACCESS AND EQUITY

The overall policy intention of the government is to modernize and enhance the quality of madrasah education by drawing a balance between religious and general education contents of learning. Access and equity thus are about creating appropriate facilities and learning conditions that are perceived by stakeholders as providing equitable learning opportunities as compared with the general education. Over the last five years several other measures have been taken to improve access, most of which are on-going.

- All MPO enlisted teachers are getting full salary per month through Madrasah Education Management Information System (MEMIS) Cell of the Directorate of Madrasah Education (DME).
- Like other educational institutions, free textbooks are distributed to the madrasah students.
- As an administrative efficiency measure, 90% of the files are handled through E-filing.
- Thirty-five model madrasahs have been established across the country.
- Honors courses at the graduate level are offered in 77 senior madrasahs.
- Projects for the infrastructural development of 100selected madrasahs with `Science Lab' and 'Language Lab' are under preparation by DME.
- Continuation and expansion of stipends for Ebtedayee students are planned.

The government's policy and the nature of measures taken indicate that the emphasis is on consolidating the current level of access by ensuring equity and inclusion rather than further expansion. This entails improving equity through the provision of infrastructural facilities and improved learning environments.

The share of students enrolled in Dakhil madrasahs was just over a quarter of the total secondary level enrollment in 2018 (BANBEIS, 2018). The madrasah system arguably faces greater challenges than the general secondary and higher secondary education sub-sectors in respect of the credibility of the competencies acquired by students.

Outputs

The main outputs of madrasahs identified in respect of access and equity are:

- Adequate provisions for government supported madrasah education services considering trends in social demand and appropriate balance between general and madrasah education enrollment.
- Analysis of the nature of demand and supply of madrasah education –socio-economic profile of madrasah students, reasons for the choices made and government policy and strategy for responding to these in the context of overall policy for access and equity in education.

The access and equity issues related to madrasah education are a balancing act determined by social demand and its adjustment with the socio-economic wellbeing of the children and youth and their prospects in the world of work.

Targets

Indicated targets related to the outputs are described below:

- The enrollment target for the government-affiliated madrasah system between 2021 and 2025 is to maintain the current level of around 4.8 million (primary to tertiary) ensuring equal gender participation, and aiming for consolidation and quality improvement.
- The number of post-primary madrasahs to be maintained at the current level of an approximate total of 9,500 by the year 2025
- Comprehensive improvement of physical facilities, including ICT, teaching personnel and curriculum structure
- A study on demand and supply analysis of madrasah education, both Alia and Qawmi, undertaken examining socio-economic profiles of participants and effective policy and strategy response within overall policy and priority for quality education with equity and inclusion

Activities

The following activities will be undertaken to achieve the targets and to contribute to achieving the outcomes:

- A rapid mapping of current madrasah activities by TMED and relevant government agencies, that provides an overview of the present scope of madrasah activities, especially the types and numbers of learners served, needs to be carried out.
- A rapid needs and demand assessment of social demand for madrasah education as well as demand for madrasah education linked with TVET, skills development, ICT skills learning, and self-learning opportunities and effective ways of providing these. This sample household-based assessment should include perceptions and demands for types of madrasah education, including Qawmi.
- Continuation of current infrastructure and program quality improvement activities underway.

QUALITY AND RELEVANCE

The one in-service teacher training facility for madrasah teachers, the Bangladesh Madrasah Teachers' Training Institute (BMTTI), conducts BMEd, short in-service training for Aliya madrasah teachers and Office Management Courses for principals and Superintendents. By

comparison, for general education schoolteachers there are more than 100 teacher-training institutions (14 of which are government TTCs). The Non-Government Teachers' Registration and Certification Authority (NTRCA) examines and registers madrasah and secondary teachers who hold B. Ed. or C-in-Ed/DPEd qualifications. Thus, in-service training is not reaching most of the Aliya madrasah teachers.

A series of measures have been undertaken under the leadership of TMEDfor improving the quality of madrasah education. These include introduction of multi-mediadigital contents, establishment of the Madrasah Education Management System (MEMIS), and establishment of model madrasahs and improvement of infrastructure, among others. The sum of these efforts is expected to contribute to quality improvements in madrasah education. In addition,several initiatives undertaken have potential to contribute to quality improvement in the longer term:

- A project for inclusion of Ebtedayee students in school feeding and stipends
- Plans for the establishment of eight madrasah teachers training institutes.
- Establishment of multimedia classrooms
- Infrastructure development of madrasahs

Curricula, syllabi and textbooks covering the general subjects have been developed by NCTB and BMEB and have fewer teaching units than the general secondary education curricula. At the same time, there are questions about the curricular burden for students and the capacity to impart the lessons and for the students to absorb these effectively.

Outputs

The following quality and relevance related outputs for madrasah education have been identified:

- Development of and support for a strategy and plan which result in the acquisition of core competencies by madrasah students in line with national objectives for all secondary level students in the country
- Improving quality of government-supported madrasah education at different levels with a focus on teachers' skills and competencies, curricular content and objectives, and student learning outcomes and their assessment – carrying forward and implementing the quality enhancement projects under preparation or underway (noted above)
- Effective Integration of relevant technical and vocational content into madrasah education to facilitate the madrasah graduates' transition into gainful employment

Targets

In order to achieve the above outputs, the following targets are set:

- Undertake a study of curricular provisions, teacher qualifications and deployment, and assessment of student learning in relation to acquiring core competencies by madrasah students at Ebtedayee, Dakhil, Alim and tertiary levels and implement actions based on recommendations—study to be included in annual action plan
- Undertake a study of the current situation of technical-vocational content in madrasah education and ways of enhancing its quality and relevance, develop a plan for integrating technical and vocational content into madrasah education to facilitate the madrasah graduates' transition into gainful employment and implement actions based on recommendations – study to be included in annual action plan

- Projection of teacher requirements at Ebtedayee, Dakhil/Alim and tertiary level teachers – to be determined for base year and final year with annual phasing
- Projection of in-service teacher training with numbers of institutions, trainee teachers at different levels and types of training – to be determined for base year and final year with annual phasing

Activities

Priorities in activity planning will include:

- Carrying forward existing quality enhancement activities under preparation and underway by TMED Division
- Commissioning the studies indicated in the outputs and targets – especially on demand and supply for madrasah education, learning achievement and teacher preparedness and performance, and introduction of relevant TVET in madrasahs
- Undertaking curriculum reform and implementation process and mechanism in relation to balance, burden, continuity and relevance, especially in reference to vocational skills content
- Undertaking learning assessment reform in madrasahs in line with assessment reform in the general stream. Activities in this respect must be undertaken in coordination with the broader assessment reforms initiatives.

GOVERNANCE AND SYSTEM MANAGEMENT

The Technical and Madrasah Education Division (TMED) has been mandated to provide critical governance inputs that include creation of skilled human resources through providing coordinated technical, vocational, science and technology-based education and training. The division is working on preparing, implementing, monitoring and evaluating research, training, policies and projects to develop technical and madrasah education. It is formulating and reforming administrative policies and teacher registration under the NTRCA as well as for financial support of private educational institutions. It is providing broadband connection to educational institutions and supporting multimedia equipment, use of ICT in classes and practical application of ICT in education management.

A separate Directorate of Madrasah Education (DME) has been established to modernize madrasah education management. In order to-improve the quality of education the role of BMEB is not sufficient. BMEB lacks a quality assurance unit, a monitoring and evaluation unit and an education management and information system (EMIS) unit. In addition, it lacks the capacity for its human resources planning and development. BMEB's institutional capacity to plan, manage, monitor and evaluate Aliya madrasah education needs further strengthening.

Partly due to the absence of robust systems and processes and lack of qualified staff the management, supervision and decision-making functions of madrasah education are centralized at senior management level and very little delegation takes place. This is even though the number of madrasahs almost quadrupled since the 1978 ordinance that established BMEB. The governance and role of Islamic Arabic University as an affiliating body also must be strengthened, clarifying its role and its complementarity with BMEB.

Analysis shows that at the central level the component units of BMEB are either thinly structured or inappropriately organized. For example, despite the high priority on quality curriculum and

textbooks, and inspection and supervision the two units are inadequately staffed and are unlikely to provide strong support for programme execution. The zonal offices need to be empowered with logistics support and mandate to undertake regular supervision and inspection of madrasah and foster madrasah-based management.

Several studies has been undertaken by BANBEIS on a mapping of the madrasah system, institutional assessment and capacity development of BMEB, and an indicative investment plan for madrasah education development. The findings of these studies will provide insights into what needs to be done for further strengthening of madrasahs.

The rationale and value of combining madrasah and technical education and how they relate to each other and complement each other will be examined in the light of experience so far. The challenges for these two sub-sectors, and their respective roles and contributions in educational development are different and raise different kinds of policy and strategy questions in relation to national development priorities and the SDG2030 and the SDG4 agenda. Taking these issues into account in developing and implementing the ESP would be important.

Outputs

The following governance and systems management related outputs are proposed for madrasah education:

- Strengthening and rationalizing various governance and management entities, mechanisms, processes and capacities – especially the central level entities such as the Division, Directorates, Boards, affiliating and examining bodies and the field level entities keeping in view the overall principles of taking decision-making closer to beneficiaries -- enhancing accountability, transparency and participation of stakeholders
- Developing and encouraging Qawmi madrasah governance and management approaches that fulfill parents' and students' expectations and protect student wellbeing, safety and security, abiding by child rights' principles

Targets

In line with the expected outputs, the following targets for governance and management for madrasah education are specified:

- Plan for strengthening governance and management capacity for madrasah education focusing on the role and functions of the new Directorate of Madrasah Education and the Madrasah Education Board, management and accountability at the institution level and improving adequacy and effective use of resources for quality madrasah education
- Determining unit costs for different levels of madrasah education for quality education, including capital and operational, and a provisional projection of costs, 2021-25, for government funded institutions and public subsidies for other institutions.
- Participatory dialogue involving the various Qawmi Madrasah Boards and the Madrasah Education Board on the Qawmi madrasah governance and management approach and standards that fulfills parents' and students' expectations and protects student wellbeing, safety and security in accordance with child rights' principles

Activities

To meet the targets and to contribute to the achievement of the proposed outcomes, the following activities will be undertaken.

- Development and implementation of a plan for strengthening governance and management capacity for madrasah education through analysis of relevant information in a participatory process.
- Undertaking an analytical exercise to estimate unit costs per student and to project costs for institutions
- Instituting a process of participatory dialogue with Qawmi Madrasah boards and the TMED on Qawmi madrasah governance, management and standards

3.6 TECHNICAL AND VOCATIONAL EDUCATION

CURRENT STATUS

The Technical and Vocational Education and Training (TVET) system in principle has the task of equipping up to two million young people seeking to enter the world of work every year with market-responsive skills for gainful employment or self-employment. Formal TVET starts from the secondary level and continues at the tertiary education level including in universities.

In Bangladesh, formal TVET consists of 360 hours (3/6 months) short course to 4 years of Diploma in Engineering courses. To meet the diverse workforce demand, the Bangladesh Technical Education Board (BTEB) has developed 33 different curricula for developing skilled human resources. These include the National Skill Standard Basic (360 hours) courses with 3/6 months' duration; SSC (Vocational);Dakhil (Vocational); HSC (Vocational); HSC (Business Management), Diploma in Commerce of 2 years' duration; Diploma courses in Engineering, Textile, Agriculture, Fisheries, Forestry, Livestock, Tourism and Hospitality, Engineering (Army), Engineering (Naval); and 1/2 year certificate courses on various trades.

The Directorate of Technical Education (DTE) plays the key role in TVET implementation, branding TVET and providing training through its institutions. In addition, TVET through NFE approaches provides opportunities for youth and adults outside the formal system. Up to two dozen ministries and divisions provide some form of skills training without much coordination. The introduction of the National Skills Development Policy in 2011 and the establishment of the National Skills Development Authority (NSDA) in 2018 are expected to contribute to developing a framework for integrated planning and management of TVET including the work under the Division of Technical and Madrasah Education (TMED) in the Ministry of Education (SDG4 Strategic Framework for Bangladesh, 2019).

TVET participation. BTEB data indicates that TVET enrollment in the institutions under Bangladesh Technical Education Board (BTEB) has reached 17.14% of the total secondary and post-secondary non-tertiary level enrollment in 2019. Female enrollment was 26.71% of the total enrollment under BTEB. The TVET Development Action Plan of the government set targets to have 25% students under TVET by 2025 and 30% by 2030. (BTEB 2019)

The number of students enrolled in TVET (grades 9 to 12 or equivalent) increased significantly from 473,537 in 2009 to almost 1.4 million in 2019 in institutions under BETB, as shown below.

- Public and private polytechnic institutes at diploma-in-engineering level - 338,888 students
- SSC (Vocational) and Dakhil (vocational) level- 379,381students
- Training in short course - 272,849 students
- HSC (BM) - 381,611 students
- HSC (vocational) - 14,962 students
- Total – 1,387,691 students in different courses at technical/vocational institutions under BTEB (BTEB 2019)

This increase occurred over the last decade due to efforts to increase enrollment by government and non-government actors.. As of 2018, over 69% of the students in TVET were enrolled in non-government institutions, which represented 87% of all institutions.

TVET institutions. There is a wide range of TVET institutions designed to provide youth with the skills required for jobs. The skills development institutions, including formal and non-formal ones, fall under five main categories:

- Public institutions under 24 ministries
- Non-government institutions that receive some form of government subsidy, e.g. MPO and grants
- Private commercial training institutions including some Qawmi madrasahs
- NGO institutions that run as not-for-profit
- Industry based institutions and training delivered in the workplace, including apprenticeships

A total of 119 institutions were managed by the government under TMED/DTE in 2018. These include the following:

- One Technical Teachers Training College (TTTC) in Dhaka (that provides a two-year B.Sc. and one-year diploma course in technical education, pedagogical and skills training, Basic training courses for TVET teachers)
- Engineering Colleges (in Mymensingh, Sylhet, Faridpur and Barisal) that provide four-year B. Sc. in Engineering course
- One Vocational Teachers Training Institute (VTTI) that provides a one-year diploma and skills training for TVET teachers;
- 49 Polytechnic Institutes offers four-year Diploma in Engineering and short courses
- 64 Technical School and College (TSC) that offer SSC (vocational) HSC (vocational) as well as Diploma in Engineering course and short courses.

There were10,452 TVET institutions in 2019 that included 3,233 SSC (Vocational) institutions, 1,910 HSC (Business Management) institutions, 301 Dakhil (Vocational) institutions, 1,259 Polytechnic (4 years Diploma) institutions, 3,223 Vocational Training Institute (Basic Skills trade) and 526 various others institutions under Bangladesh Technical Education Board conducting 33 different curricula. (BTEB2019).

Expansion of TVET institutions through DTE is underway. Currently, 100 new technical school and colleges (TSCs) are being established which will start their academic session from 2021. Additionally, 329 new TSCswill be established in 329 upazilas which will have female hostels in each TSC. With the existing 64 TSCs, there will be at least one TSC in every upazila. AttheDiploma level, 23 new polytechnic institutes are being established in 23 districts. To encourage female

access to TVET, four new female polytechnic institutes are planned to be established in addition to eight female TSCs under construction. There is a discussion about opening technical education courses in colleges under the National University, in place of the current honors courses at the degree level in these institutions.[2]By 2030, provisional plans for establishing new institutions include 3,000 vocational institutions for SSC vocational courses, 2,000 Business Management (BM) Technical Colleges at HSC level and 2,000 Polytechnics for diploma in engineering, medical, agriculture and other technical courses (GED 2018).

To sum up, projects being completed by 2021 or shortly afterward will ensure:

- A total increase of TVET enrolment by 620,000
- TVET trainers and personnel increased by 45,000 new workforce
- At least one public TSC in every upazila
- At least one public polytechnic institute in every district
- At least one public engineering college in every division
- At least one public female polytechnic institute in every division
- Training of 110,000 persons in semi-skilled and low-skill jobs through private training providers and business partnership

Longer term, by 2030, major expansion is foreseen for SSC vocational courses (3.000 new institutions), HSC business management courses (2,000 new institutions), and diploma engineering in a wide range of courses (2000 new institutions). The groundwork for this expansion will be laid and the beginning will be made in the ESP period.

TVET management. As a measure to improve TVET provision, the Technical and Madrasah Education Division (TMED) was set up in 2016 under MoE. The division is expected to support policy and strategy and to oversee TVET sub-sector work carried out by the Directorate of Technical Education (DTE) and the Bangladesh Technical Education Board (BTEB).

An integrated TVET Development action plan was formulated in 2018 by TMED. The action plan emphasized the development of the Bangladesh Qualification Framework (BQF), which will contribute to the implementation of the National Technical and Vocational Qualification Framework (NTVQF). It proposed admission quotas of girls to be raised from 20% to 25% and continuation of the 5% disabled students' quota. A plan is under consideration to introduce a compulsory technical-vocational course for students of classes 9 and 10 and gradually extend this to grade 6 in all schools and madrasahs. Under the SESIP project SSC(Vocational) courses have been introduced in 640 general secondary schools.

Skills and employment gaps*.* According to the Labour Force Survey 2015-16, the labour force consists of 62.5 million people of whom 60 million are employed (BBS, 2017). More than 80% of the labor force is in the informal sector generally with low skills and low earnings. Current plans and strategies are yet to address specifically the needs of the informal economy. A comprehensive strategy and plan with a defined time horizon, in line with the SDG targets (for SDG4 for education, SDG5 for gender equality and SDG8 for productive employment and decent work) has been under discussion. The plans under consideration for introducing vocational (or pre-vocational) content in grades 6 to 8, and a 100-marks vocational course at the secondary level for all general education students of grade 9 and 10 raise some questions about attractiveness of the

[2]Speech of the Minister of Education during Stakeholder Consultation on Voluntary National Review of SDGs 14 January 2020, organized by the Ministry of Education

courses to students, their market relevance and maintaining quality in these courses. In TSCs, students from grades 6-8 will have to face exams of 200 marks in technical subjects. How they may be implemented effectively, how they fit in the NTVQF, and how they may relate to job prospects and further education/training of students need to be examined. Questions about the efficacy and value of the vocational courses can be better answered by assessment of outcomes from current vocational courses in secondary schools.

***Flexible NGO and private sector providers*.** There is a long-standing NGO presence in TVET and skills development, but some have a weak market orientation. Others have demonstrated the capacity to provide quality skills development offering access to marginalized groups, providing them with marketable skills and facilitating the transition to paying jobs (MoPME, 2020). The diversity of their experience makes them potentially important providers of skills training at the grassroots level.

There are literacy programmes that include elements of life skills and livelihood skills. These initiatives are project-based and therefore for a limited duration. This raises issues about their institutionalization and the development of a sustainable system for lifelong education through non-formal education programmes. There are also private technical training institutions and informal skills development initiatives, mostly in cities, responding to market demands for specific skills.

In the context of changing nature of jobs, employment market, implications of new technologies including automation and artificial intelligence, which are likely to affect even the informal economy, new approaches and thinking are required about enabling young people to access skill development opportunities and upgrade their skills. This is discussed further in Chapter 4 in relation to ICT, 4th Industrial revolution and 20th century skills.

Youth in adversity.A report on youth in adversity emphasized two strategies, namely identifying and targeting youth in adversity and implementing specific measures to facilitate training-to-work transition. Adversity could be defined by socio-cultural factors, e.g. girls, trans-genders, Bede (a nomad community), persons with disabilities, and ethnic groups, by economic factors, e.g., the hardcore poor, and by location, e.g., *char, haor*, hills, tea gardens, former border enclaves and islands. The promising areas of job opportunities must be identified for transition to work support. The flexible and market responsive activities may be an area of interface between TVET and non-formal education (CAMPE, 2020).

Priority to equity and increased participation in TVET needs to include two types of measures. First, the availability of vocational education for dropouts needs to be ensured in a responsive and accessible way and ways must be found to enhance the capabilities of workers in the informal economy. Of some two million young people entering the labor market each year, only about 10% are estimated to have the chance to work in the formal sector in an era of jobless growth. The second approach is affirmative action, especially preparing women for job opportunities in the formal and informal economy and helping school drop-outs and those not going on to further formal education to participate in skills development designed with an understanding of the gap between skills supply and market demands. Flexible and varying duration short skills development activities are being offered by TVET institutions. More are needed based on local demands and needs. In addition, non-formal education and life-long learning will play a special role in providing many skills development opportunities required for the informal economy jobs

in the context of local economy and market demands. (See discussion on NFE later in this chapter.)

CHALLENGES

Taking advantage of the demographic dividend. Bangladesh is experiencing a demographic dividend with a high youth population (age 15-24) and with the working-age population significantly larger than the non-working age population (Farole et al, 2017). This opportunity is expected to continue until 2031 (UNFPA, 2015). However, the dividend cannot be realized when a large proportion (estimated at around 30%) of youth are "not in education, employment, or training" (NEET). The target, noted above, is to increase TVET enrollment 25% in 2025 and 30% in 2030. It is mentioned in the BBS report on the Labour Force Survey 2016-17, Bangladesh had a working-age youth population (between the age of 15 and 29) of 41.25 million. This group comprised the employed (approximately 17.95 million), unemployed (approximately 2.13 million), NEET (approximately 12.3 million), migrant or aspiring migrant youth (approximately 8.0 million) and others (approximately 0.88 million). TMED has the challenge of creating skill training and recognized certification of skills for these groups through Competency Based Training and Assessment (CBT&A) aligned with NTVQF/BQF. TVET and skills development are crucial building blocks for enabling young people to harness opportunities in a changing economy, to be contributing members of their society and to achieve their life potential.

There are several considerations in planning for skills development for young people:

- There is demand abroad for workers, especially skilled ones, which has been a significant factor in Bangladesh's economy. Up to half of new entrants to the workforce have gone abroad in recent years seeking job opportunities, which unfortunately faces a set-back because of the COVID-19 pandemic.
- Demand-driven flexible and responsive training provision, nationally recognized qualifications, competency-based training and assessment, and programmes and providers with quality assurance have been emphasized in policy discussion and in various skills development projects.
- Strengthened role for industry sectors in skills development, accurate skills and labor market data for planning and monitoring, competent and certified instructors and trainers, and effective and flexible institutional management have also been emphasized.
- Creating skill development and job opportunities equitably with affirmative strategies to help disadvantaged and marginalized groups and overcoming persistent gender gap in TVET and jobs.
- In the context of "the fourth industrial revolution" (4IR), the ICT sector offers special opportunities in the knowledge economy in a globalized world. (Discussed further in chapter 4).

Minimizing the gender gap. Various initiatives by state and non-state actors have contributed to enhancing girls' enrollment in TVET, such as stipends and preference in admission. Girls' enrolment is still relatively low at just over a quarter of the total (26.71% in 2019 according to BTEB). Government has adopted affirmative actions towards girls along with other groups in disadvantage. NSDC (2012) identified barriers to the entry of women in TVET which include perceptions and trends in community thinking regarding gender roles and gender stereotypes about what women and girls are capable of doing (MoPME, 2020).

Improving governance and management. Effective implementation of well-intentioned programmes depends on effective governance and management. A concern in this regard is the high degree of centralization in decision-making. The success of TVET depends on its responsiveness and flexibility in relation to the market needs and demands at the local level. Policy discourse in this respect, as indicated in the ESA, has suggested that the governance and management structures need to be more responsive to varying situations. Measures in this direction could create multiple technical education boards instead of one as now, promoting greater involvement of the private sector stakeholders could assist in carrying out various functions of the board.

***Enhancing coordination*.** The National Skills Development Authority (NSDA) and concerned stakeholders need to work jointly on revisiting the National Skills Development Policy adopted a decade ago. Attention is also needed to strengthening the TVET and skills development curriculum at secondary and tertiary levels, as well as for non-formal education, aligning it with the NTVQF/BQF and the vision set by the Industry Skills Councils (ISCs), considering the future needs of the job market at home and abroad. The formulation of the draft Bangladesh Qualification Framework (BQF) with 1-10 levels has been finalized under MoE auspices. It is designed as a complete skill based NTVQF and integrates various streams of education.

Strengthening and ensuring the availability of short courses on skills development for a quick transition to the world of work is important for poverty reduction, focusing on youth in adversity and capitalizing on the demographic dividend. The issues of complementarity and integration to the extent possible of general education with technical and vocational education need attention. It is also necessary to enable the graduates of TVET and other potential participants to continue up-skilling and re-skilling through permanent, rather than ad hoc programmes for this purpose. Initiatives in this respect are being taken as noted above. The experiences will be critically examined and creative approaches would be considered regarding skills and jobs, including ICT enabled jobs in the informal and the formal economy, discussed further in chapter 4.

Development partners including ADB, EU, ILO, World Bank and bilateral agencies, have been supporting multiple project interventions. Despite considerable investments and significant activities, these projects have not generated the commitment or synergy essential to building a demand-driven, integrated and sustainable nationwide skills development system.

Towards a holistic view. TMED has recently taken the initiative to work towards a (sub)-sector-wide integrated framework for TVET (called SWIFT) to bring about a meaningful and sustainable transformation of TVET/skills development (MoE, 2020).Apart from the problems discussed above, several specific system weaknesses have been identified that SWIFT would attempt to address. Government polytechnics and TSCs are experiencing serious qualifiedteacher shortages which will be aggravated further with the planned rapid expansion of these institutions.There is a need forDTE to assess the quantity and quality of teachers, develop a system of quality assurance and bring teacher/trainer standards up to the demands of the evolving technological environment. Having assessed the need for qualified TVET teachers, DTE had proposed the creation of 18,645 posts for the public TVET institutions; upon further review, 12,607 new posts received approval of the Ministry of Finance.

A sector-wide framework for TVET (SWIFT) is intended to help promote collaboration and coordination with the Skills Development Working Group (SDWG) of the Education Local

Consultative Group (ELCG) serving as a forum for building consensus and purposive harmonisation. It is recognised that a comprehensive TVET SWAp would be difficult at this time to attain because of the complexity and wide scope of the sub-sector. SWIFT is expected to build a foundation for a future SWAp by bringing coherence and better coordination in TVET at least within the remit of MoE.

The SWIFT Results Framework is anticipated to facilitate a consistent articulation amongst all efforts in this area.The four results areas are about designing market responsive TVET, increased access with equity, relevant curricula and efficient training by effective trainers, and better governance and management including resource management. The aim is to have a concerted focus on priority areas for intervention/investment within and potentially beyond MoE's domain.

The need clearly is to make a concerted effort to contribute to a coherent national approach rather than undertaking initiatives that may undermine a holistic view. The responsibility in this respect lies with national decision-makers and entities such as NSDA, MoE and its subsidiary bodies. Participation of industries and employers, NGO networks, philanthropies, and private provider networks are being involved as stakeholders with seats on the policy discussion table.

OUTCOMES

The situation and the challenges suggest outcomes in the ESP for the TVET sub-sector, which are reflected in the proposed SWIFT results areas, to be achieved by 2025, as follows:

- Increased participation in demand driven TVET and skills development programmes which are flexible, which link up with industry specific skills needs and facilitate smooth school to work transition
- Significant improvement in measurable learning outcomes in foundational skills and trade-based technical skills as identified jointly with employers, achieved through efficient training competency-based curricula, appropriate materials and equipment, practical classes, and ICT facilities
- Progressive decentralization of functions with planning, management and financial authority at the institutional levels for ensuring the intended results
- Strengthened institutional capacity and enhanced coordination mechanisms to ensure continuity of education and training during and following natural calamities and other emergency situations, with particular attention to issues of short and longer term duration raised by the COVID-19 pandemic though usual distance education modes are more difficult to implement in TVET.

ACCESS AND EQUITY

TVET participation in Bangladesh is increasing with the introduction of technical subjects in the general stream of education. The current strategies of the government consist of inclusion of a vocational subject at junior secondary, secondary and Dakhil madrasahs, expanding the technical-vocational stream at the secondary level, setting up technical schools and colleges in districts and upazilas and improving the quality of polytechnic institutions, both public and private. The success of these strategies will depend on efficient implementation and maintaining essential quality and relevance standards for the institutions. There is demand for non-formal TVET/skills development institutions and training centers which need to be registered with the concerned authorities to ensure basic quality and to protect the interest of learners. Affirmative

action in favor of girls and marginalized youth through increased support are needed as a key element of the plans.

Outputs

In order to address the above challenges and to build on opportunities, the following access and equity related outputs have been identified for TVET for the ESP:

- Significant increase in TVET participation of students beyond basic general education (beyond grade 8 and10) and vocational orientation in basic general education
- Suitable physical facilities, laboratories, workshops and learner-friendly environments available in all institutions meeting the needs of all girls and boys, including learners with disabilities, with adequate WASH facilities, including for adolescent girls, and sufficient space for active learning
- Greater use of remote/online learning and special short-term or on the job training programmes for the targeted population
- Affirmative action initiatives to increase participation of girls, ethnic communities, persons with disabilities and other disadvantaged groups

Targets

In order to achieve the above outputs, the following targets have been identified:

- Inclusion of a vocational orientation subject at the junior secondary and Dakhil level (grades 6-8) in 30,000 schools– baseline and final year targets to be set in terms of number of students, disaggregated by gender, with phasing. Baseline 0 (2019) to estimated target of 177,000 by 2025.
- Inclusion of a vocational subject at the secondary and Dakhil level (grades 9 - 10) - baseline and final year targets to be set in terms of number of students, disaggregated by gender, with phasing.
- Increased technical-vocational stream institutions at the secondary level (grades 9-12) – number of institutions, base-year and end- year with phasing to be determined. Baseline number of institutions 10,452 (2019) and target of 16, 310 (2025) (new 472 public TVET institutions will be established under DTE by 2025).
- Increased technical-vocational stream students at the secondary level (grades 9-12) – Baseline 151,859(2019) to target 208,000(2025)
- Setting up of Technical School and College (including MPO and non-MPO SSC (vocational and Dakhil (vocational) and HSC (vocational) institutes) in districts/upazilas – Number of institutions, base-year and end- year with phasing, to be determined Baseline 3, 534 (2019) to target 5,000 (2025).
- Increased students in Technical School and College in districts/Upazilas – baseline and final year targets to be set in terms of number of students, disaggregated by gender, with phasing Baseline 379,381 (2019) to target 640,000(2025).
- Setting up of polytechnics, public and private – number of public and number of non-government institutions to be determined for base year and end year with phasing.Baseline1,259 (2019) to target 1,360 (2025). Increased enrollment in polytechnics – from 2019 with final year target to be determined, disaggregated by gender, with phasing Estimated Baseline 338,888 (2019) to target550,000 (2025)

- Setting up HSC (Business Management) institutions – type and number for base-year and end year to be determined, with phasing. Baseline 1,910 (2019) to target 2,500(2025).
- Increased enrolment in HSC (Business Management) – enrolment by type of institution for base year and final year to be determined, disaggregated by gender, with phasing. Baseline 381,611 (2019) to target 605,000 (2025).
- Setting up Basic Trade institutions (360 hrs.) institutions – type and number for base-year and end year to be determined, with phasing. Baseline 3,223 (2019) to target 6, 500 (2025).
- Increased enrolment in Basic trade trainees– enrolment by type of institution for base year and final year to be determined, disaggregated by gender, with phasing. Baseline 272,849 (2019) to target 431,200 (2025).
- Setting up Registered Training Organizations (RTO) and RPL centers– type and number for base-year and end year to be determined, with phasing Baseline 411 (2019) to target 950(2025).
- Increased enrolment in NTVQF graduates– enrolment by type of institution for base year and final year to be determined, disaggregated by gender, with phasing Baseline 72,000 (2019) to target 125,000 (2025).
- Increased affirmative action with TVET institutions especially for girls, and – types, numbers and enrolment for base year and end-year to be determined, with phasing Baseline 4 female TVET institutes (2019) to 16 female TVET institutes (2025).
- Increased enrolment of girls in TVET institutions with percentage of girls increasing. Baseline 26.71% (370,658) in 2019 to target 35% (770,000) by 2025.
- Increased affirmative action with stipends for TVET students – categories and number of beneficiaries to be determined for base-year and end-year disaggregated by gender, with phasing. Baseline 180,000 students (2019) to target 750,000 students (2025).

Note: Baseline values and targets are as indicated by the Directorate of Technical Education on the basis available data. These will be further assessed and verified as the action plans are elaborated during the first year of ESP implementation.

The TVET programmes will be built on the strength of the current programmes. The following specific activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Establishing an adequate number of TVET institutions with learner-friendly classrooms aiming for enrolment of an increased proportion of secondary/higher secondary level students
- Ensuring an adequate number of laboratories and workshops in each institution for the courses offered ensuring adequate space, furniture and equipment for active learning
- Construction of WASH blocks, with appropriate facilities for adolescent girls, and provision of sports and co-curricular activities
- Development and implementation of plans for affirmative action for disadvantaged youth, both boys and girls, for ethnic communities (both CHT and plain land) and for persons with disabilities to ensure their enrolment and retention in TVET
- Taking affirmative action in favor of girls and increasing the girl's quota and the other quotas for the disadvantaged
- Provision of funds for maintenance and repair of school buildings, classrooms, workshops, laboratories, ICT facilities, playgrounds and WASH facilities

- Establishing and strengthening school-to-work transition through industry linkage and workplace based learning and apprenticeship development for job placement, and entrepreneurship development as part of training
- Increasing the number of TVET institutions in urban peripheries and rural areas and, where permanent set-ups are not feasible, using alternative methods, e.g. mobile technical schools
- Preparing detailed implementation plans, setting standard operating procedures, creating incentive structures to attract youth in adversity and looking into the future market needs so that TVET becomes market-responsive
- Strengthening job placement support to TVET graduates

QUALITY AND RELEVANCE

With the rapid expansion of formal TVET systems, ensuring the supply of quality teachers and trainers has become an urgent issue (World Bank, 2018). Expansion has been especially in the SSC and HSC Vocational courses, in polytechnic institutions and in various short courses. There is an absence of appropriate institutions to supply qualified teachers for the surge in TVET and skills development.

Polytechnics, especially public polytechnics, are attracting academically strong secondary education graduates. Around 70% of polytechnic students completed their SSC with at least GPA-5 (equivalent to 70% or higher marks), which can be considered a strong academic performance (World Bank, 2018). However, the employability of TVET graduates remains an issue, particularly being employed in the area of training. It is also important to consider issues of how foundational and generic skills in general education can prepare youth for the changing world of work and how some compensatory measures can be taken in TVET courses.

Many of the workers employed now, as well as jobseekers, are not able to take advantage of training opportunities because of their lack of basic foundational and generic skills. Many who have left the country are being employed as unskilled workers. Some have skills (such as electricians) which are not recognized due to the lack of a system for the recognition of prior learning (RPL) which is still emerging. The lack of a sufficient number of well-trained assessors as well as the lack of a strategic plan with allocation of resources seems to be a bottleneck. There is also the need for mutual recognition of certification of skills without which Bangladeshi migrants, despite having certain skills, are employed as unskilled and receive lower wages.

Teachers' and trainers' skills and quality, as well as incentives for them, have a major impact on the outcomes of education and training. TMED has been taking steps in this respect with increased training both within the country and abroad.

An important initiative in quality enhancement is preparing policies, standards and tools for implementing the NTVQF and establishing mechanisms for assessing quality and equivalency. These need to be applied more extensively and efficiently across the spectrum of skills development.

Re-orientation of curricular objectives is needed, supported by basic general education content, preparing students better to take advantage of TVET and eventually to be better prepared for the world of work. TVET and skills development have to become more demand-driven and flexible to respond to the evolving and changing needs of the formal and informal employment markets.

Outputs

The following quality and relevance related outputs have been identified for TVET:

- Re-orienting curricular objectives and content in basic general education to enable learners to be better prepared for the world of work and for further technical and vocational education and skills development for the changing nature of work
- TVET and skills development becoming more demand-driven and flexible to respond to the evolving and changing needs of the formal and informal employment markets
- Enough teachers in TVET institutions with the required qualifications and skills through initial training and CPD, including introduction, piloting and expansion of pre-service training for TVET
- Appropriate and sound standardized learning assessment mechanism in place that facilitates school- to-work transition, including regular third-party tracer studies of graduates
- Increased collaboration with technical training institutions in neighboring high performing countries for cross-learning and enhanced efficiency

Targets

In order to achieve the above outputs, the following targets have been set:

- Increased numbers of higher secondary level TVET teachers/trainers – baseline and final targets to be set by major types of institutions including secondary technical vocational stream, technical schools and colleges, polytechnics and other TVET, with phasing Baseline 53,684 (2018) to 90,000 (2025) (Under DTE, additional 31,000 government TVET teacher posts will be created and recruited)
- Increased numbers of teachers/trainers with subject qualifications for general education subjects and technical subjects – baseline and final year targets to be determined by types of institutions (secondary technical-vocational stream, technical schools and colleges, polytechnics and other TVET), with phasing
- Increased numbers and percentages of total TVET teachers with in-service/CPD (for categories of training) – baseline and final year targets to be determined, disaggregated by gender, with phasing
- Development and expansion of on-line teacher professional development and engagement through Internet-based Teachers' Portal (ITP) – indication of outputs, activities and timeline to be determined
- Increase in number and percentage of TVET institutions and classes with STR of <30:1 – baseline and final year target to be set for all types of institutions, with phasing
- Increased numbers and proportions of institutions adequately equipped with workshops, laboratories and training equipment – baseline and final year targets with grading system to be determined by major types of TVET institutions (secondary technical-vocational stream, technical schools and colleges, polytechnics and other TVET), with phasing
- Development, trial and application of TVET learner and school/programme assessment tools, summative and formative, with emphasis on practical skills
- Increased number of institutions with plan for and application of summative and formative assessment – baseline and final targets to be set with grading system, with phasing

- Designing and conducting study on market responsiveness and adaptability of curriculum content and teaching practices
- Strengthening the TVET curriculum as a continuing process, including employer collaboration through industrial councils, with a balance of generic skills, soft skills, and practical skills, and effective implementation
- Development and application of NTVQF in curriculum, teaching-learning and assessment
- Promote RPL and increased apprenticeship and workplace-based training opportunities
- Strengthened monitoring and evaluation functions of Bangladesh Technical Education Board to oversee and evaluate in accordance with the NTVQF and to undertake periodic tracer studies of graduates to assess employment and performance outcomes

Note: Baseline values and targets are as indicated by the Directorate of Technical Education on the basis available data. These would be further assessed and verified as the action plans are elaborated during the first year of ESP implementation.

Activities

The indicated targets call for activities for (a) enhancing the working environment for faculties and staff; (b) attracting highly qualified personnel for the institutions, both in terms of academic faculty, practical training, market linkages and institutional managers; (c) devising and implementing faculty improvement programmes; (d) developing plans to enhance the research and international engagement of faculties and institutions.

The following specific activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Curriculum revision and textbook and teaching-learning materials development to ensure a strengthened competency-based curriculum and hands-on training for an effective, efficient and learner-friendly pedagogy; and applying concept of common core and locally adapted non-core parts in curriculum design
- Provision for all TVET institutions of quality material, adequate lab and workshop facilities and an apprenticeship programme for increased employability
- Promotion of critical thinking, problem-solving, communication, values and ethics through the TVET curriculum and adopting a whole school and whole society development approach – also introducing flexibility for TVET institutions to adapt parts of the curriculum according to local labor market needs
- Recruitment of competent teachers and maintaining manageable class size
- CPD of TVET teachers and managerial staff, linking with appropriate institutions at home and abroad
- Establishing and expanding a system of online teacher professional development and engagement through teachers' portal
- Development of division-based trainer pools and training materials for curriculum dissemination and teacher orientation
- Development, trial and application of TVET learners' assessment tools, summative and formative, and emphasizing more practical sessions, encouraging both students and teachers spend sufficient time in workshops and laboratories.

- Applying NTVQF in curriculum, teaching and assessment paying attention to international comparability and recognition; looking at the Bangladesh Qualification Framework to complement NTVQF.
- Establishing a Teachers Employment Commission for TVET, given the growing size of teaching personnel and need for greater efficiency
- To Encourage experts with practical work experience in relevant industries to become TVET teachers
- Strengthening exchange visit of teachers and students at home and abroad; promoting skills innovation and skills promotion through competitions; and moving towards international standards and accreditation
- Strengthening EMIS for TVET and the monitoring and evaluation functions of the TEB to oversee and evaluate according to the NTVQF and to undertake periodic tracer studies of graduates to assess employment and performance outcomes.
- Promoting public-private partnerships not only for increased access to TVET, empowering youth with high-tech TVET skills and enhanced employability
- Establishing effective career guidance and counseling and job placement offices in TVET institutions
- Improving TVET quality, market linkages and employability considering the needs of the national and overseas markets

GOVERNANCE AND SYSTEM MANAGEMENT

The discussion in the ESA and points raised above suggested key considerations for management and governance which include the following:

- A cross-sectoral master plan for governance and management, identified as a total education sector issue, can provide a framework for the governance and management component of the TVET sub-sector with objectives and targets. (The general topic is discussed in chapter 5.)
- Strengthening personnel management and establishing and applying performance standards linked with incentives have to receive greater attention.
- The private sector needs to be encouraged to play its role in technical education and skills development with the NSDA leading the initiative through participatory involvement of stakeholders.
- Financial adequacy for the sub-sector is to be considered. Establishing criteria for allocations of resources for the sub-sector based on unit costs to achieve the quality and relevance objectives and results-based financial management have to be introduced, rather than taking an incremental budgeting approach.
- Strengthening and capacity building for management support, supervision and inspection for the sub-sector leading to individual institutions having autonomy and flexibility to respond to local needs and conditions.

Outputs

In order to address the challenges and to build on opportunities, the following governance and system management related outputs have been identified for TVET for the ESP:

- More responsive governance and management of TVET to the needs and demands of the market through greater devolution of authority and accountability to district and institutional levels
- Greater coordination and coherence in programmes for achieving key objectives, moving towards a (sub)sector-wide approach, involving major stakeholders for efficient skills development as anticipated in the SWIFT initiative
- Development and application of effective models of public-private partnerships for skills development through policy support, research, experimentation, and trial
- Improved implementation, monitoring and evaluation capacity with effective coordination
- Effective involvement of communities and Industry Skills Councils and linkages with job providers

Targets

In order to achieve the above outputs, the following targets have been set:

- Development of a SWAp-type approach through the SWIFT initiative for TVET collaboratively by TMED involving the Directorate of Technical Education, Bangladesh Technical Education Board and the National Skills Development Authority and involving government, non-government and private sector stakeholders – timeline and outputs to be determined
- Development of decentralized management system with functions and capacities devolved with increased authority to institutions -- specific outputs, activities and timeline to be determined
- Strengthening of decentralized management of TVET by strengthening division and district level functions and the capacities of DTE and TEB, aiming for substantial devolution of responsibility and authority to division, district and institution levels – specific targets and timeline to be established
- Development and application of institutional leadership capacity building programmes with Head/Principal as an institutional leader and the Institution Managing Committee as the focal point for accountability to stakeholders – specific outputs, activities and timeline to be determined
- Determining per student minimum capital and annual operational expenditure for quality TVET in major categories – outputs, activities and timeline to be determined
- Estimating baseline and final year costs based on estimated per student capital and annual operational expenditures for the proposed expansion of major categories of TVET (vocational stream in secondary and madrasah, technical schools and colleges, polytechnics and others) – base year and end-year with phasing by capital and operational costs to be determined
- Development and piloting of a model of public-private partnership by assessing and building on present MPO- based public subsidies aiming for the adequacy of resources, efficient use of resources and stronger public accountability
- Development of a functioning EMIS model, with institution, upazila, district-wise data and its use for management and monitoring to support decentralized planning and management, without burdening teachers and heads of institutions – specific outputs, activities and timeline to be determined

Activities

The following specific activities will be undertaken in a phased manner over the five-year period to achieve the above targets:

- Expansion of certification aligned with NTVQF/BQF across the education boards
- Promoting research and development and improving the data management system to provide disaggregated data by gender, location, poverty, disability, ethnicity and youths at risk among others and improvement of the management information system (MIS)
- Revisiting the personnel policy and promoting a career path for TVET teachers and consideration of a separate recruitment commission for TVET teachers
- Establishing an effective MIS for TVET with essential components of database, analyzing and reporting, and use of the data for management and planning
- Strengthening exchange visits of teachers and students of TVET institutions at home and abroad
- Encouraging paperless offices and green practices to protect the environment
- Work on implementing affirmative action policies to encourage girls, persons with disabilities, ethnic communities, hardcore poor and other disadvantaged groups to access TVET, and supporting smooth and quick training-to-work transition.
- Promoting decentralization, revisiting the inspection process and establishing Technical Education Boards at the divisional level.
- Strengthening engagement across ministries, divisions, NSDA and other agencies, TVET providers, employers and civil society for TVET collaboration
- Developing a response plan to emergency and longer-term effects of climate change, pandemics and other unusual situations (e.g. school closure due to COVID-19)

3.7. NON-FORMAL EDUCATION

CURRENT STATUS

The Non-formal Education Policy was adopted in 2006 (MoPME), paving the way towards a more integrated and lifelong learning-based approach for NFE by linking basic literacy with the world of work and lifelong learning. The National Education Policy (MoE, 2010) includes sections on NFE policy and implementation. The NFE Act (MoPME, 2014) has designated two specific age groups of the population as the main NFE beneficiaries – children between 8 and 14 years who either did not enter primary education at the appropriate age or dropped out early, and adults aged 15 plus without literacy skills.

Given that 85% of the workforce belongs to the informal sector, the majority with low productivity and low earnings and with an estimated ten million children and youth under 18 out of school, there is a great need to provide for needs-based, responsive, flexible and inclusive education opportunities. Recognition of this need has led to a dialogue on a Sector-Wide Approach (SWAp) for NFE activities.

Non-formal education, because of its flexibility and its opportunity-based and needs-based character, is carried out by different organizations. A full picture of its scope and extent is difficult to construct. The Bureau of Non-formal Education (BNFE), Ministry of Primary and Mass

Education is the lead coordinating agency for implementing NFE activities nationwide. BNFE has identified six major components of its work that define the nature of its engagements in the NFE sector. These components are: i) Literacy for Youth and Adults; ii) Education of Out-of-School children (OOSC) (second chance primary education); iii) Skills for work and life; iv) Physical facilities; v) Management and implementation; and vi) Financial resources for NFE. BNFE's current programme activities relate mostly to the first two areas.

Besides BNFE under the MoPME, other government agencies carry out publicly funded non-formal education interventions across the country, including the Directorate of Youth Development (DYD), Department of Social Services (DSS) and agencies under ministries of labor, industries, agriculture, women and children affairs, and science and technology --directly or by supporting non-government bodies, such as the Bangladesh Computer Council (BCC). A broad definition of NFE also includes agricultural extension services and public health education and information dissemination. The largest numbers of participants in NFE have been in adult literacy projects of BNFE implemented in collaboration with NGOs. Another large project is the second chance primary education initiative for the 8-14 years age group, which is underway as a pilot.

According to BNFE, the Basic Literacy Project (BLP) in its first phase enrolled and "graduated" a total of 2.4 million youth and adults from 134 upazilas, equally divided between males and females, since 2018. In a second phase, 2.1 million are expected to be served in 114upazilas. BNFE is implementing a second chance education programme under the sub-component 2.5, 'Out-of-school children' of PEDP4 targeting one million Out-of-School Children who have missed primary education. Currently, the pilot phase is underway of the second chance programme (grades 1 to 5) with approximately 100,000 children.

There are concerns about looking at the literacy programme mainly as a way of raising the adult literacy rate with a conventionally narrow definition of literacy, which may not serve the objectives of literacy to make a difference in the quality of life of learners and the contribution they can make to society and the economy (UNESCO, 2015).

An initial evaluation of the second chance project suggested that there were some limitations in the design, operational constraints and low estimates of unit costs in the project design that led to operational challenges. For example, there were delays in disbursing salaries of teachers and the rent of learning centers and a lack of separate toilets and drinking water for children. Low qualifications and remuneration of teachers and project personnel with limited job duration were de-motivating factors. The project does not include at present vocational training for those children who will not continue their education in the formal system (IMED, 2020).

Many education and development NGOs and the private sector also provide non-formal education for youth and adults, but reliable data on this have been scarce. It should also be noted that non-formal education for youth and adults overlaps to some extent with the skills training carried out by some TVET institutions, as noted in the ESA (MoE, 2020).

Findings from the Multiple Indicator Cluster Survey 2019 (BBS 2019) show that a significant share of school-age children remains out of school. At the primary level over 8 percent of school age children were reported out of school by this survey. The ratio is higher for rural areas compared to urban areas. The disadvantages are correlated with the income levels of families, with those in the poorest quintile almost four times more likely to be out of school than those in the richest quintile. The disadvantage for the lower income groups is even higher at the secondary

and higher secondary levels according to MICS 2019 data. The overall proportions of out-of-school children were reported to be 18 percent at lower secondary level and 36 percent at the upper secondary level for the respective age groups. There is, therefore, a need to expand educational opportunities for young people through NFE programmes that are responsive to their needs and circumstances (MoE, ESA, 2020).

Recent data suggest that the gender gap has narrowed for the adult literacy rate. Official data indicate that about a quarter of adult males and females remain non-literate. But a substantial rural-urban gap continues. Some 45 percent of rural women are still illiterate (BNFE, 2018).

CHALLENGES

The stated purposes of the current non-formal education interventions primarily are to implement basic literacy programmes and to provide a second chance for the children left out from primary education. Discussions about promoting NFE and lifelong learning have suggested the need for a sub-sector programme approach in which development of Community Learning Centers (CLCs) could serve as hubs for literacy instruction, second chance education, lifelong learning, life skills training and skills training leading to employment, especially in the informal economy. The sub-sector programme discussion has emphasized priority to community-based learning activities, coordination of actors, realistic planning and effective monitoring as pivotal to attain the non-formal education objectives (BNFE, 2018).

The nature, scope and development of an NFE sub-sector program remain under discussion. Only a small fraction of at least 32.5 million adolescents and adults estimated to be illiterate has been enrolled in literacy projects, and making these more effective is a concern, as noted above. An aspiring upper middle-income country cannot have a huge number of youth and adults illiterate, unskilled occupationally and deprived of opportunities to participate in learning to fulfill their own goals.

It has been recognized that the Out-of-School Children must be brought to the ambit of education, largely through the non-formal approach, since the most of them are drop-outs from formal schools and a small portion who never enrolled in schools. Given the SDG4 agenda of secondary education, similar second chance opportunities also must be extended at the secondary level. However, according to the Non-Formal Education Act, 2014, BNFE is authorized to operate non-formal education up to primary. There is no such non-formal education program for secondary level.

The TVET sub-sector has mainly focused on training and skills development of people who have already acquired a certain level of formal education (at least grade 8). It generally lacks organised skills development for the informal economy where over 85% of the work force is employed. Formal and informal apprenticeship, a principal means of worker preparation and skills upgrading that are responsive to specific market demand, are also largely lacking. There are economic opportunities, for example, in diversified agricultural activities, processing of farm products and horticulture; animal, poultry and fish rearing; and diverse services for populations in rural areas, which can be supported with targeted, flexible and short-duration skills courses. In these areas, non-formal education and lifelong learning can be harnessed to fill the gap in skills development for youth and adults (Policy Research Institute, 2017).

To sum up the state of non-formal and adult education, two points need to be emphasized. First, non-formal alternatives for Out-of-School Children need to be funded and implemented effectively. A second chance programme of sufficient scale and quality must be a part of the main strategy for inclusive quality primary education in order to serve all who are left out of the mainstream – dropouts, working children, children with special educational needs, those in remote areas and those in other special circumstances. The existing model of implementation through partnerships with NGOs is not fully effective in terms of capacity to delivery services. Thus, the existing modality needs to review.

Secondly, a lifelong learning approach needs to be adopted as a key operating principle in the entire education sector and reflected strongly in non-formal and adult education. To make lifelong learning a reality, opportunities for functional literacy for youth and adults must be a first step. The main approach to this end, as experience in many countries shows, is through building a network of community-based learning opportunities which could offer a variety of relevant learning activities, supported by essential resources, complementing formal education. Vocational training for those not going on to further formal education needs to be part of the approach. This can be linked to or complement the multi-purpose Community Learning Centers serving specific areas and localities. ICT-based learning opportunities, including self-learning for personal and occupational development, need to be a strong element of the lifelong learning approach. In this regard discussions have been on-going on possibilities for a "Sector-Wide Approach (SWAp)," as described in the ESA (MoPME, 2020, Annex III).A consensus on the best way forward must be developed.

Thirdly, there are different acts and policies related to skills, technical and vocational education and training. For instance, some of the existing related acts are the Non-Formal Act 2014, National Skill Development Authority Act, 2018 and Bangladesh Technical Education Board Act, 2018. All the concerned authorities, within the purview of their concerned acts, have the responsibilities of overseeing and managing some of the elements of vocational training and NFE. In this context, a review of the acts and related rules, regulations and policies may be needed.

OUTCOMES

The discussion above suggests several broad outcomes for NFE in the medium term for the ESP:

- Arriving on a consensus regarding adopting a (sub)sector-wide approach for NFE including the scope and scale of the programme in the medium term.
- Making the second chance programme for primary education effective, addressing challenges faced in the current second chance primary education initiatives and makingsecond chance education linked directly with a follow up skill development training.
- Making the youth and adult literacy programmes a first step in a lifelong learning opportunity and adopting an institutional approach that is sustainable, such as creating a network of Community Learning Centers (CLCs) and skills training centerswhich serve all localities and communities.
- Encouraging and expanding opportunities for self-learning and ICT-based learning, creating learning spaces and facilities for which Community Learning Centers can be the hub.
- Developing and putting in place an organizational structure with stronger capacity for BNFE to guide and lead non-formal education and lifelong learning for children, youth and

adults through partnership building of government and non-government actors including local government, NGOs and community organizations.

ACCESS AND EQUITY

The overall objective of the NFE sub-sector, deriving its rationale from the SDG4 objective of promoting lifelong learning, is to enable participation of children, youth and adults in educational opportunities to fulfill their individual potential, be effective members of their family and community and be productive and responsible citizens, capable of facing the challenges of the 21st century. Two aspects of this overall objective, in line with the NFE Act 2014, are: a) to bring Out-of-School Children aged 8 to 14 into alternative second chance primary/basic education, and b) to provide NFE/lifelong learning to youth and adults aged 15+.

In accordance with the NFE Act 2014, BNFE is assigned to lead and coordinate the NFE related activities in Bangladesh. Historically BNFE has concentrated on literacy projects. Recently it has assumed responsibility for non-formal primary education which was carried out by DPE under the Reaching Out-of-School Children (ROSC) Project. As indicated in the NFE Policy and the NFE Act, BNFE also has the task of offering learning opportunities related to life and livelihood skills for youth and adults. All of these activities have to be carried out in an equitable and inclusive manner maintaining acceptable quality.

Outputs

The proposed access and equity linked NFE outputs for the ESP are as follows:

- Continuation of primary education equivalent learning opportunities for children who have never enrolled in or dropped out of primary school.
- Access to appropriate level of vocational training for learners who have completed second chance education.
- Access to learning opportunities for youth and adults, complementing formal education, to develop their knowledge, skills, capabilities and attitudes through relevant and high quality learning activities, including literacy, basic education, life and livelihood skills development and continuing education programmes.
- Affirmative action approach to promote inclusion in NFE programmes of children, youth and adults who are in special need, in various forms of disadvantage, differently abled and/or subject to gender discrimination.
- Wide availability of learning facilities, spaces and opportunities through networks of Community Learning Centers and skills training centers, , ICT and distant learning modes and self-learning opportunities.

Targets

In order to realize the outputs regarding access and equity in NFE, the following targets have been identified.

- Out-of-School Children and youth from 8 to 14 years, as well as older youth (up to age 18) as universal education is extended to secondary level if affirmative decision taken, engaged in learning activities within an equivalency framework with formal education at their respective levels, including:
    - One million participants in second chance primary level education (grades 1-5) with an intake of 100,000 in first year and rest will be covered in a programme of

4-year average duration--a stable enrolment of 400,000 anticipated by the final year of ESP, until the demand is met.

- A proportion of Out-of-School Children engaged in vocational learning within an equivalency framework, including:
    - A target may be set with annual phasing for youth participating by 2025 in pre-vocational and vocational education geared to local economic opportunities and the informal sector offered through Community Learning Centers and skills training centers depending on the project/program taken during the period.
- Youth and adults without sustainable literacy skills to be enrolled in literacy skills development at their respective levels, including:
    - Five million youth and adults brought by 2025 into literacy and adult education programmes of varying duration offered through community-based learning centers.
- Affirmative action approaches designed and incorporated in all NFE activities to widen learning access to those in special circumstances, hard to reach areas, person with disabilities and those subjected to gender discrimination
- A network of Community Learning Centers (CLC) organized to permit all interested learners to engage in learning activities including literacy, livelihood skills, and life skills – at least one CLC in each upazila by 2025

Major elements of the targets indicated above were included in the 7th Five-Year Plan, but implementation has been modest and confined to two areas, namely second chance formal education equivalency and adult literacy projects following a traditional approach. The future development of NFE will depend on moving away from separate and time-bound projects, adopting integrated sub-sector programming and creating a sustainable institutional vehicle of a network of community learning opportunities and facilities to offer need-based lifelong learning opportunities.

Activities

A consensus is required regarding adoption of an integrated approach for NFE. A technical assistance mechanism may carry out detailed planning for NFE proposed in this ESP. All aspects of NFE related to access and equity, quality and relevance, and governance and management have to be considered and detailed out as part of an integrated sub-sector approach.

Key activities related to the access and equity aspects of the NFE programme to be considered in developing the sub-sector programmes will be:

- A rapid mapping of current NFE activities by BNFE, other government agencies, NGOs and the private sector that provides an overview of the present scope of NFE activities, especially the types and numbers of learners served and the learning objectives of the activities
- A rapid needs and demand assessment for NFE focusing on second chance education programmes, literacy programmes, life skills and livelihood skills development, ICT skills learning, and self-learning opportunities
- Work on a model of Community Learning Centers with regard to feasibility to use local community halls managed by union parishads, or any office space of the union parishad complex or any other space provided by the local community or, if not, any other existing option in the locality Review and evaluation of the existing model of operation and

suggestions an appropriate models which will ensure economic and efficient service delivery and programme design.

- Taking measures to accelerate and intensify the NFE activities to implement the learning activities and achieve the targets proposed with decisions made on the workable model for the institutional vehicles for NFE activities

QUALITY AND RELEVANCE

Ensuring acceptable quality and making learning activities relevant for learners' needs and circumstances are clearly the major challenges for NFE programmes. The formal primary education curriculum objectives, contents and textbooks will be used with the necessary adaptations and supplementation in the primary education and proposed secondary education second chance programmes. BNFE currently has engaged a technical support team in order to strengthen its ability to deliver non-formal primary education (NFPE) for out-of-school children which hitherto was not within BNFE 's institutional experience.

Through recent curriculum modifications, BNFE has attempted to unify the experiences from four innovative models by taking into consideration what worked and did not work in the four models implemented by NGOs under BNFE auspices. However, as noted above, operational problems have been faced in implementing the project. It is also mentionable that the performance of the NGOs in terms efficient and economic service delivery also needs to be reviewed. An objective evaluation of learning outcomes is also necessary to determine if the purpose of the project is being realized. .

Adult literacy activities under BLP follow a traditional approach with a six-month training course irrespective of the level of initial skills and the pace of progress of learners. Weak teaching-learning and assessment approaches are also seen as weaknesses of the programme. Similarly, the model for implementing the activities through NGOs is also questionable in terms of efficient service delivery and costs. The need for revisiting the approach has been widely raised. Other target activities for life and livelihood skills development have to be designed on the basis of needs assessment and by examining feasibility issues.

Teaching-learning approaches responsive to learners' needs will have to be developed and applied. A critical element of curriculum development and teaching methods, particularly in the case of adult NFE, is to allow the space for learning at the learners' own pace. The provision for livelihood and vocational skills will entail collaboration with the TVET sector through the mediation of the National Skills Development Authority (NSDA). Experiences of NGOs may be shared for this purpose. ICT based learning and self-learning, as well as literacy skills related to life and work, could enhance the relevance of the programme for learners, but they are not featuring of the current BLP.

Outputs

The proposed quality and relevance linked outputs for NFE are as follows:

- Contribution to building a learning society and learning communities throughout the country, encouraging all to participate in and contribute to learning, by supporting all forms of learning activities and facilities including digital learning spaces and ICT resources, self-learning, and informal education opportunities, using the network of community-based learning and training centers as the local hub.

- Creation of an effective mechanism for delivery of non-formal and continuing education for children, youth and adults, to create lifelong learning opportunities, to help build a productive and empowered citizenry, to contribute to fighting poverty, to improve the literacy skills of the population, to expand effective skills training and to widen opportunities for continuing education.
- Increased ability of youth and adults to use literacy as well as other life related skills to access information and knowledge for the socio-economic benefit of individuals and society.
- Strengthened quality-related inputs and activities including continuous development and adaptation of learning content and materials; effective recruitment, motivation and support for trainers/facilitators; and assessment that measures and promotes relevant leaning outcomes.

Targets

In order to realize the quality and relevance outputs, the following targets have been identified:

- Flexible and responsive literacy and adult education programmes with content designed and tried involving experienced and expert panels and organizations with demonstrated record in such programmes, and based on assessment of experience, established throughout the country in phases
- Effectiveness of second chance education program for primary level increased through evaluation of current activities and redesign as needed – phased activities to evaluate, adapt and implement
- Effective programmes for vocational training for those who completed second chance education with ICT provision – implementation timeline and activities to be determined
- Design for life skills and livelihood skills programmes for youth and adults to be developed and tried out in consultationwith experienced and expert panel – to be implemented in phases
- Designing and trying out learning activities related to cultural, aesthetic and creative expressions, in consultation with experienced and expert panel with the aim of building learning communities, learning villages and learning cities, in line with the principle of creating a learning society
- Assessment of learning outcomes for diverse educational activities and groups of learners to be introduced,applied and further developed in phases -- outputs, activities and timeline to be determined with development in phases and with regular tracer studies
- Ensuring adequate numbers and high quality of trainers, facilitators, supervisors and managers of learning activities for diverse learning objectives and learning clienteles – baseline and final year targets to be determined, with phasing
- Developing a national resource center to provide technical support and system capacity building including learning content and materials development, training of personnel, and strengthening monitoring and evaluation.– outputs, activities and timeline have to be determined

Activities

Two aspects of quality and relevance are: a) critically examining and improving existing programmes, including for second chance primary and adult literacy; and b) ensuring quality and

relevance in the design and implementation plan of proposed new activities, including needs-based life and livelihoods training and encouraging self-learning and ICT-based learning.

Key activities related to the quality and relevance aspects of the NFE are indicated below:

- Giving due attention to quality and relevance of learning activities in the proposed rapid mapping of current NFE activities by BNFE, other government agencies, NGOs and the private sector to construct an overview of the sub-sector
- Giving due attention particularly to quality and relevance issues in the proposed rapid needs and demand assessment for NFE focusing on second chance education programmes, literacy programmes, life and livelihood skills development, ICT skills learning and self-learning opportunities. ICT-enabled learning and self-learning should be a major feature in NFE and lifelong learning, developing and designing in consultation with other public organization, NGOs and ICT organizations, including the private sector
- Designing mechanisms and methods for learning content and materials development as a continuing process, for the diverse NFE learning activities, recognizing that curricular content and materials need to be flexible and needs-based and adapted for learner needs and circumstances, much more than that of formal education
- Designing and trying out learning activities related to cultural, aesthetic and creative expressions. Public and private universities, local artists, cultural and research institutions, and university departments will be involved. The emphasis may be on promoting the celebration of cultural diversity, peace and global citizenship
- Identification, selection, remuneration, incentives, performance criteria, performance evaluation and capacity building of trainers and facilitators and their supervisors, recognizing that there is need for flexibility and attracting people with diverse skills and experience, rather than a permanent cadre of personnel
- Developing and designing methods and tools for assessing learning achievement and outcomes of diverse NFE activities for equivalency learning. A mechanism also to be introduced to open up opportunities to 'coming back to school' for the out-of-school children appropriate age at appropriate level. Credible assessment of learning outcomes remains a particularly weak area in NFE
- Designing and introducing tracer studies of trainees and learners as an assessment activity if required by employing third-party expertise

GOVERNANCE AND MANAGEMENT

There is a strong need to develop an effective NFE governance system with multi-agency and multi-stakeholder participation. It is necessary to ensure that a national NFE delivery system evolves that can achieve the expected outputs, outcomes and impact. In doing so, an effective and efficient functional implementation structure at both national and community levels needs to be developed by BNFE. Furthermore, BNFE will develop its institutional capacity to work as an apex body to manage and facilitate NFE throughout the country.

Outputs

In line with the overall governance and management priorities of the ESP, the outputs expected for the NFE sub-sector are as follows:

- Creation of a functional operating system for the non-formal education sub-sector characterized by governance and management mechanisms, as well as methods and

processes, which fit the purposes of NFE to help achieve the results regarding quality, equity and inclusion.

- Governance and management approaches and practices that facilitate resource mobilization and maximizes the benefits of the existing human, technical and financial resources.
- Development of coordination mechanisms and practices for effective planning, management and monitoring of the sub-sector in NFE.
- Establishing management and governance mechanisms for the sub-sector with a decentralized operational structure involving local government, communities, NGOs and the private sector, so that NFE programmes function as responsive, flexible, community-based and community driven enterprises with transparency and accountability
- Reviewing the NFE Act, 2014 focusing any changes or modification required to accommodate changing demand.

Targets

In order to realize the indicated governance and management related outputs for NFE, targets have been proposed as described below:

- Building an adequate organization and management structure for NFE through appropriate strengthening of BNFE extending from national to local levels, with focus on partnership building and coordination – activities and timeline to be determined
- Developing appropriate modalities of partnerships and coordination involving local government bodies, other government agencies, community basedorganizations, NGOs, the private sector, ICT facilities, academia and communications media -- activities and timeline to be determined
- Improvement of human resources policy, management and capacity building through assessment of needs for NFE and a phased plan for adaptation and improvement to be implemented
- Ensuring adequate resources for non-formal education, adult education and lifelong learning based on evidence and needs. A provision for adequate budget for the organizational activities and staffing of BNFE – to be developed and implemented in phases
- Strengthening of monitoring and evaluation and the MIS system through development of robust monitoring mechanisms, EMIS and sufficient monitoring capacity -- to be introduced early in the programme and further developed and refined progressively
- Reviewed the NFE Act, 2014 and necessary actions taken to amend the act, if required.

Activities

The governance outputs and targets indicated above anticipate an integrated and holistic NFE programme with the aim of encouraging lifelong learning. The key activities related to governance and management aspects of NFE are indicated below:

- Organization and management (O&M) analysis of BNFE, including efficacy and value of the current structure of the NFE Board and the Advisory Committee under the NFE Act 2014
- Reviewing of the NFE Act 2014 by an appropriate committee, consultations with stakeholders and formulation of recommendations prepared for further actions

- Partnership modalities developed based on O&M analysis and consensus built with key stakeholders
- Human resource policy and practices including staffing pattern of BNFE examined and a rationalized pattern and structure developed in light of the decentralized management anticipated and the new role and nature of NFE
- An evidence-based plan developed and carried out providing guidance on how to move away from a project mode to a permanent NFE/lifelong learning (LLL) programme supported by regular government budget and on how other resources may be mobilized to expand the EFA/LLL scope and reach
- Review of current M&E system and MIS for the NFE sub-sector and development of a robust monitoring system

3.8 TERTIARY EDUCATION

CURRENT STATUS

Recent trends in the education sector of Bangladesh reveal a higher priority to the primary and secondary sub-sectors compared to tertiary level education. However, social demand for tertiary education has grown and it has received greater attention in the education policy discourse in recent years (ADB, 2015). The sub-sector comprises a complex scenario with multiple streams and sub-streams, each with unique characteristics and different demand and supply concerns (World Bank, 2017).

There are around 120 functional universities in Bangladesh, of which 34 are public and 86 are private. Counting those not yet functional, the number increases to 145 in total, of which 45 are public and 100 are private. The 120 functional universities are serving about 20 percent of the tertiary enrolled students in Bangladesh. The other tertiary level providers are: a) over 3,000 colleges affiliated with the National University (with over one million students); b) the Open University (with over one million enrolled); c) over 1,200 tertiary level madrasahs affiliated with the Islamic Arabic University (with almost 31,000 students enrolled and others to be brought under its jurisdiction); and d) the Islamic University (with about 63,000 students enrolled) (UGC, 2017). The salient development in tertiary education is the growth of both private and public institutions over the last two decades often compromising quality standards and quality requirements, and relevance of the outputs for the employment marketand development needs of the country.

Important features of the Bangladesh tertiary education system are worth noting:

- Of about 5,000 tertiary-level institutions, around 120 are functioning mainstream universities. These exclude the Qawmi stream of faith-based institutions, over whichno regulatory authority is exercised by the government. There are also specialized institutions for higher level professional education and training outside the mainstream university system.
- University students (other than in affiliated colleges), public and private, make up under one-fifth of general tertiary students. Among them, about eight per cent of total tertiary level students go to public universities and ten percent to private universities.
- About one-third (32%) of mainstream public university and just over a quarter (27%) of private university student bodies are female (Abed, 2018).

The colleges under the National University, accounting for over three quarters of tertiary students, are the workhorses of the tertiary education system. They supply the bulk of mid-level personnel for both the public and the private sector as well as teachers for school education and TVET. It can therefore be said that the quality of the National University colleges determines the quality of the large majority of educated human resources in the country and thus affects how efficiently the country functions. Evidence indicates that this large segment of the tertiary education system remains particularly weak in its provision of facilities and faculty and in the quality of graduates produced (Abed, 2018; UGC, Annual Report 2018).

The Open University helps to expand the opportunities for tertiary education in a flexible way, serving the objective of equity and taking pressure off mainstream universities. There is potential for making good use of digital technology and open source educational content freely available to a large body of learners with the mediation of and necessary language adaptation by the Open University.

As noted in the ESA, it is essential to look at tertiary education development as part of the total education system. The tertiary education system consists of distinct components which have different roles and contributions to make. They complement each other and are inter-dependent. Faculty members for all components of tertiary education generally come from the mainstream universities.

CHALLENGES

The University Grants Commission (UGC), the regulating body for higher education and the Ministry of Education have prepared the Strategic Plan for Higher Education in Bangladesh (SPHE) 2018-30 that is intended to guide the course of tertiary education development in the country in the coming years. It reflects the national objectives for higher education envisaged in the National Education Policy 2010, the 7th Five Year Plan and the SDG education agenda (UGC, 2018).

The 13-year plan was approved by the Hon'ble Prime Minister in April 2018. It consists of 41 activities in three phases, Phase I: 2018-2022, Phase II: 2023-2027 and Phase III: 2028-2030. According to Prof. Muhammad Alamgir, Member, UGC, steps are being taken by MoE, UGC and universities to implement SPHE with particular attention to the following areas:

1. Improving financial management of universities
2. Building relationships between university and industry with a stronger university-industry linkage
3. Strengthening UGC to play its oversight and higher education leadership role effectively
4. Strengthening Bangladesh Accreditation Council as a quality improvement strategy
5. Setting up ICT based information and management system in universities
6. Extending BdRENICT facilities to all tertiary educational institutions to promote ICT-enabled learning
7. Setting up teaching-learning centres in universities and a an academy for faculty professional training
8. Improving logistic support for teaching
9. Encouraging and supporting Ph.D. studies and young researchers
10. Setting up new universities as required

11. Preparing and approving by the Chancellor an organogram for each public University and personnel recruitment accordingly following common recruitment rules
12. Introducing cluster-wise admission system and tests for public universities

The comprehensive strategic plan attempts to address issues of access and equity, quality and relevance and governance and system management in tertiary education, which are also the major components of the education sector plan.

Ambitious aspirational goals have been set in the strategic plan, such as, major expansion of access with change in gender balance and improvement of socio-economic equity; emphasis on STEM not neglecting the foundation of liberal education; large-scale faculty upgrading; moving to ICT-enabled learning; and significant governance and organizational improvement in the system. These are all justified by the growth of the economy and rising social demand for tertiary education but are likely to run up against implementation capacity and resource constraints. For example, establishing "a world class flagship" university is a favorite topic with academics, but experience suggest that launching a flagship successfully, while the wide base of tertiary education remains seriously deficient and under-invested is challenging.

A twenty-year Strategic Plan for Higher Education 2006-26 was prepared by UGC, but it was found some aspirational targets were difficult to be implemented. The present plan looks critically at the experience and takes note of the lessons. The new strategic plan, based on key challenges in tertiary education identified, is intended to address these as noted below.

Employability of the workforce with tertiary degrees is perhaps the most discussed challenge related to tertiary education in the country. Tertiary education institutions have been unable to produce an adequate number of suitable graduates to meet the demands of the job market of the emerging economy. There is growing demand from the employers for professionals to serve the growing industrial and service sectors. At the same time, there is high unemployment among graduates, more than double the rate of general unemployment of around 4 percent. (Rahman et. al., 2019)

Female participation in tertiary education remains low. In contrast to achievements in gender parity in school education, only about a third of public university students are female and just above a quarter in private universities (UGC, 2017).

Tertiary education access isnot equitable across income groups. Public universities remain highly selective, while the private universities require high fees. As a result, aspirants of tertiary education from lower socio-economic strata find tertiary education very difficult to access. The lower three income quintiles account for only one-fourth of the total enrollment in major universities in Bangladesh (Rahman et. al., 2019).

Quality assurance in tertiary education remains a critical area of concern. While the passing of the Bangladesh Accreditation Council Act 2017 by the National Parliament has been welcomed by stakeholders, its operationalization is yet to be visible. While some universities have come forward with quality assurance innovations, such efforts are still lacking in many institutions (Rahman et. al., 2019). High student teacher ratios and inadequate provision of modern learning facilities, especially ICT enabled learning environments, are inhibiting quality enhancement (*Ibid*). The ICT insufficiencies have become an acute concern in the context of the COVID-19

pandemic, since universities are scrambling to provide on-line and distance mode lessons in spite of the limitations, especially in the public universities.

These inadequacies are affecting the preparation of students for the job market. This is especially true for colleges affiliated with the National University which produce at least two-thirds of the higher education graduates. As noted, these remain particularly weak in their provision of facilities and faculty and consequently, in the quality of graduates produced (Abed, 2018). A recent study has revealed that 46 percent of these graduates must wait for three years or longer to get employed (Tazmeem, 2019; Ministry of Education, 2020).

While enhanced utilization of ICT in tertiary education to ensure better quality and efficiency has been a matter of discourse, the outbreak of the COVID-19 pandemic and the shutting down of institutionshave brought to the fore the urgency and relevance of ICT enabled tertiary education. The UGC has urged the government to take necessary steps to provide free internet packages for university students, aiming for at least 80 percent attendance in on-line classes (Alamgir, 2020). Increased investment for improving ICT infrastructure is considered essential to create the desired teaching and learning environment in universities. University-wide ICT infrastructures that allow students and teachers to operate from their computers as access points to libraries, online repositories, and virtual classrooms need to be the goal to be achieved (Sumon, 2020).

Universities have a special role to play in the creation, evaluation, maintenance and dissemination of knowledge. A relevant question is how closely the university, as a center for research, knowledge production and dissemination, should be directly tied to the job market when other institutions of higher learning are directly and specifically involved in this task. By developing human resources in specialized professional areas, the professional institutions may relieve the burden on the mainstream universities, leaving them free to engage in basic and applied research and inter-disciplinary areas of higher education.

At the same time, the role of universities is changing from that of ivory towers to engines of socio-economic development through knowledge, innovation, entrepreneurial spirit and life-long learning. The relevant question then is whether Bangladesh universities should not focus on socio-economic and technology adaptation issues for its development rather than just follow the footsteps of advanced countries. The complementarity of the general and specialized institutions and the appropriate balance in provisions and resource allocations at the tertiary level remainareas of concern.

There are two direct links between tertiary education and the rest of the education system. First, the school system provides and prepares students for tertiary education. How schools do their job determines what tertiary institutions can do and whether they can succeed. Secondly, tertiary institutions supply the teachers for schools. It is a cyclic relationship and making it a virtuous cycle is a challenge.

OUTCOMES

The comprehensive Education Sector Plan (ESP) for the coming five years needs to take the challenges into account and define the desired outcomes. These ESP outcomes are placed under three major ESP components.

Access and Equity

- Expanding access to tertiary education commensurate with economic and national development needs while enhancing and maintaining equity, quality, and relevance in tertiary education
- Promoting holistic and balanced tertiary education development ensuring mutually complementary contributions of its major components – public and private universities, affiliated colleges, and professional and technical tertiary education
- Increasing investment in adequate and modern teaching and learning facilities including ICT facilities, laboratories, libraries and student accommodation in institutions of higher learning
- Creating scholarships and education loans to enhance equity in participation and access.

Quality and Relevance

- Improving teaching and learning and assessment of learning outcomes that support and encourage deeper knowledge and effective application of knowledge in work and life and that promote creativity, moving away from traditional and rigid approaches in teaching-learning and student assessment, including effective operationalization of the accreditation mechanism.
- Enhancing Edtech and ICT capacities and investments as a key strategy for improving quality and relevance of tertiary education, adopting a blended approach in teaching-learning, raising skills and competencies of graduates and improving professional and teaching skills and capabilities of the faculty members.
- Attracting highly qualified faculty members and increasing opportunities and incentives for their professional development and performance.
- Providing for smart investments and incentives to faculty to promote research, knowledge creation and dissemination and application of knowledge.

Governance and System Management

- Strengthening the governance structure of tertiary education with greater transparency, accountability for performance and greater autonomy to better performing institutions
- Strengthening management, accountability and results focus of the affiliated colleges under the National University, which serve most tertiary students, with greater devolution of authority and decision-making based on performance criteria
- Protecting tertiary education from extraneous political influence and developing and applying codes of conduct for students and faculty

Translating these outcomes expressed in broad terms into specific outputs, achievable targets and implementable activities is the real challenge. The outputs, targets and activities in tertiary education are presented below under the three headings of access and equity, quality and relevance and governance and management. These are in line with the strategic plan for higher education (2018-30) approved by the government. The activities related to the targets are proposed by considering the steps that may be necessary to fulfill the overall objectives of tertiary education by 2025 and 2030.

ACCESS AND EQUITY

With about three million students enrolled in university level education as of 2018, it is clear that only a small proportion, about 18 percent, of young adults have access to higher education, and

less than 20 percent of these students are enrolled in traditional mainstream universities. The others are mainly enrolled in degree colleges affiliated with the National University or in distance education under Open University. The facilities in many of the degree colleges are inadequate for university level education provision. There is a wide gender gap with females making up less than one third of university enrolment. There is also limited access to universities and degree colleges for aspiring students from poor families due to a lack of financial assistance.

Outputs

With a view to address the challenges mentioned above and to enhance meaningfully access and equity in tertiary education, the following outputs have been identified for the ESP:

- Affirmative strategies, including financial support, to increase the total enrollment in tertiary level education in Bangladesh in line with development and job market needs
- Programmes and policies to ensure equitable participation of female students in tertiary education
- Programmes and policies to ensure equitable participation of students from lower income strata in tertiary education
- Expanding facilities to increase the share of tertiary level students enrolled in Science, Technology, Engineering and Mathematics (STEM), not neglecting the role of liberal arts and humanities in well-rounded education for all tertiary graduates
- Strengthening ICT-enabled learning and special initiatives to ensure students (especially female students and students coming from low income households) are able to utilize ICT in education and distance learning
- Having a clear guideline and plan of action in place to mitigate adverse effects of COVID-19 pandemic on access and equity aspects of tertiary education (with special focus on female participation and students from lower income strata)

Targets

In order to ensure the outputs identified, the following targets have to be achieved:

- Increase of GER of the 18 – 24 age group from 18 percent in 2020 (estimated) to 25 percent in 2025. This means the total number of tertiary sub-sector students increasing to around 4.4 million
- Increase of GER for female students in the tertiary sub-sector from 15 percent in 2020 (estimated) to 25 percent in 2025. This means the total number of female students in the tertiary sub-sector increasing from approximately 1.4 million to 2.2 million
- Ensuring that at least 25 percent of the enrolled students in all types of tertiary education institutions (i.e. public university, private university and affiliated colleges) are from households belonging to the two poorest quintiles
- Increase in the share of enrollment in science, technology and engineering from 30 percent to 50 percent
- At least 40 percent of the students getting financial support to access ICT enabled learning (e.g. internet connection, smart devices, etc.)

Activities

The following activities are to be undertaken and completed by 2025 to attain the targets, as anticipated in the SPHE (2018-30):

- To attain the target of increasing enrollment, the following activities are to be undertaken:
    - Ensure the 11 public and 16 private universities that are approved but to be functional start operation.
    - A student loan programme to be initiated which will provide soft loans (with nominal interest rates) to at least 40 percent of the students, covering around 1.8 million students. A trust/company may be set up to provide these loans.
- For ensuring the desired increase in GER for female students in tertiary education, the following activities will be undertaken:
    - A scholarship program for tertiary level female students will be expanded significantly by 2025.
    - Policy will ensure certain percentages of seats of all newly opening (during the ESP period) universities and other tertiary education institutions for female students.
- With a view to ensure the desired level of participation of students from lower income strata in tertiary level education the following activities are proposed:
        - A scholarship program for tertiary level students will be initiated which will cover 30 percent of the total enrolled students including a higher proportion of female students, the scholarships will exclusively cover meritorious students from households in the two poorest income quintiles. This implies that by 2025 this program will provide scholarships to approximately 1.3 million students.
    - Policy will ensure certain percentages of the seats in newly opening (during the ESP period) universities and other tertiary education institutions will be reserved for meritorious students coming from households belonging to the two poorest income quintiles.
- To increase enrollment in STEM the following activities will be undertaken:
    - Ensure adequate facilities (faculty and soft and hard infrastructure) in all functional tertiary education institutions so that 50 percent of the students can enroll in STEM, with due provision for foundational liberal education for all students.
    - All the newly opening (during the ESP period) universities and tertiary education institutions will get approval to operate on condition of ensuring 50 percent seats for STEM students.
- A special student loan program will be implemented throughout the ESP period to ensure that at least 40 percent of the students get personal loans (consumer loans) to procure internet service and smart devices required for ICT enabled learning. The government may opt to come up with a trust/company with enough endowment to provide the loans and/or encourage financial service providers to provide the loans.

Activities will have to be undertaken in respect of planning and projecting the growth of the sub-sector, affirmative action steps as well as physical infrastructure and learning facilities development, as shown below, considering SPHE objectives. The projections of enrollment for balanced expansion of tertiary education by 2025 and 2030 by genderhave to be made for:

- Enrolment in affiliated colleges under National University and college-level madrasahs under Islamic Arabic University
- Enrolment in public universities, undergraduate and postgraduate

- Enrolment in private universities, undergraduate and post-graduate
- Enrolment in professional/technical students, by major categories
- Enrolment in Bangladesh Open University

Affirmative action to promote equity in tertiary education will include the following:

- Scholarships and tuition-waivers beneficiary students under above-mentioned categories of tertiary institutions – number of beneficiary students – base year, end year, phasing
- Loan schemes in tertiary education – development and trial of a workable tripartite program involving institutions, government and the banking system
- Inclusive tertiary education – development and trial of a program to promote gender equity, access to persons with disabilities and special needs.

Steps for ensuring tertiary institutions have adequate physical facilities, learning environments and ICT infrastructure, with plan and timetable by 2025 and 2030, include the following:

- Review of current standards of criteria regarding physical facilities, learning environment and ICT provisions; establish criteria and standards to be achieved in five years and ten years. Indicate outputs, activities and timeline
- Projection of numbers and percentages of total of institutions under major categories (listed above) with adequate facilities.

QUALITY AND RELEVANCE

Besides limited and inequitable access, there are also significant concerns about the quality and relevance of the education being offered in many of the universities, degree colleges and other tertiary education institutions. Quality refers to the expected skills and competencies that learners are expected to acquire and to the teaching-learning process to ensure that this happens. Relevance is about the utility and value of the skills and competencies in the multiple adult roles of the learners as workers, citizens, members of the community and society, and as individuals with personal goals and aspirations.

In many institutions the academic programmes, the teaching personnel and the learning facilities are not up to fulfilling the needs for meeting the quality and relevance objectives. For example, there are no libraries in many colleges. ICT facilities in the majority of institutions are inadequate, and not all students have access to online resources. Teaching styles tend to be traditional and didactic. There is a high dependence on traditional formal examinations and little emphasis on formative and continuous assessment. Most of the faculty members have had no teacher's training either before or after recruitment. The most pressing quality issue is the mismatch between the skills gained in tertiary education and the needs of the jobs market. Many degree holders have difficulty finding employment; at the same time many employers report that they cannot recruit young graduates with the requisite skills for the jobs that are available.

As a strategy to improve the quality of tertiary education, the Bangladesh Accreditation Council (BAC) was established in 2017 as an autonomous body to institute a process of accreditation of institutions and their academic programmes. The formulation of the Bangladesh National Qualification Framework (BNQF) is underway with the aim of defining the qualification criteria in the entire education system from the primary level to Ph.D. It is an internationally benchmarked instrument for the development, classification and recognition of skills, knowledge and competencies.

The National Qualifications Framework is seen as a comprehensive framework to classify qualifications provided by all education and training providers in the country. It is aimed at: (i) making the training levels easier to understand and improve coherence of the qualification system; (ii) supporting lifelong learning; (iii) facilitating transfer of credit and recognition of prior learning; (iv) strengthening the link between training and the labour market, and (v) facilitating the international recognition of national qualifications. It specifies the required years, credits, skill sand learning outcomes against agreed benchmark levels for the entire education system. The classification reflects the content and profile of qualifications - that is, what the holder of a certificate or diploma is expected to know, understand, and be able to do. According to Prof. Muhammad Alamgir, Member, UGC, the BNFQ is expected to guide a quality improvement approach and recognition of competencies and skills and help achieve the Accreditation Council objectives.

Outputs

With a view to ensure the desired level of quality and relevance of tertiary education in Bangladesh the following outputs are set for the ESP.

- Adequate arrangements in place for periodic training of faculty (a pedagogical/teachers' training academy)
- Recruitment process operational to ensure qualified faculty are recruited for all tertiary education institutions
- Student-Teacher Ratio (STR) in tertiary education institutions improved to a desired level necessary for improving quality of instruction within the given timeframe.
- Provision created for self-assessment of all departments of tertiary education institutions with a view to quality enhancement at all levels of tertiary education, teaching-learning, and assessment systems (intensifying the Accreditation Council activities and applying the approach for all tertiary institutions)
- Traditional rote learning-based assessments and reliance mostly on written examinations changed to active learning practices and formative assessment methods (building on initiatives underway in some institutions)
- Facilities and funding for research and publication, periodic review and self-assessment of faculty research, and rewards/recognition for high quality research.
- Adequate investment to ensure all tertiary level educational institutions have state-of-the-art research laboratories and mobilization of funds from public and private sources to conduct quality research
- Sufficient investment in developing ICT infrastructure for all tertiary education institutions with special focus on the blended approach of combining distance and face-to-face learning made a common feature and sharing of knowledge products between the institutions (at home and abroad)

Targets

To attain the outputs mentioned above the following targets have been set to be achieved between 2021 and 2025:

- At least 50 percent of the tertiary education institution faculty members receive periodic training between 2021 and 2025. This implies up to 75 thousand faculty gets training within the said time period
- A uniform recruitment and promotion system for tertiary education institutions in place

- Overall student-teacher ratio reduced to 30 by 2025 from around 40 in 2020 for all tertiary education institutions (public and private universities, National University affiliated colleges etc.)
- Tertiary education institutions begin to undertake self-assessment aiming to enhance quality with departments in at least 50 percent of the institutions making significant progress with Quality Assurance Unit of the University Grants Commission providing necessary support and guidance to the institutions, supported by the Accreditation Council.
- All tertiary education institutions practice formative assessment methods and emphasize active learning in student assessment, utilizing ICT and internet connectivity extensively, shifting from exclusive reliance on written exams and traditional rote learning
- Government (via UGC) allocation of BDT 3 billion annually to all teaching and research universities combined (through performance-based funding) with at least 50 percent of the teaching and research universities mobilizing additional funds for research through working in collaboration with the private sector
- Setting up of a National Research Council and promoting university research
- All universities benefitting from Bangladesh Research and Education Network (BdREN) with its multi-gigabit capacity ensuring high performance broadband capacity, connecting all higher education and research institutions across the country and support geographically dispersed academics, scientists and researchers
- At least 30 percent of the universities offering online courses (facilitating distance learning) and all the tertiary education institutions utilizing mixed method (combination of direct and online) interaction between the teachers and learners
- Consideration by UGC, MoE and National University of the role and contribution of universities for improving the quality of pre-tertiary school education, particularly professional development of education personnel of the school system, and research, policy development and technical support for the development of the national education system
- Distance education programmes of Bangladesh Open University further upgraded and modernized with more focus on professional skills focused learning.

Activities

The following activities will be undertaken between 2021 and 2025 to ensure that the targets are achieved-

- An institute with full residential facilities will be set up to train teachers of all universities and other tertiary education institutions, additional to institution-based professional development activities.
- Entry level faculty will be recruited through a combination of written test, demonstration class and interview. Possession of a PhD degree will be a requirement for a university teaching profession. Universities and other tertiary education institutions will outline and share a Standard Operating Procedure (SOP) with UGC for every academic and administrative procedure.
- UGC will undertake periodic research to determine the demand for human resources and review university curricula to make them responsive to demands of the job market.

- All tertiary education institutions will prepare 5-years thematic strategic plans with specific targets and objectives which will be crucial for improving its educational standards and continued development.
- Public universities will be in ideal positions to run the semester system (adequate human resource and other capacities). The private universities will adopt a 6-month long semester system for delivering quality instruction.
- A National Research Council (NRC) will be set up under an Act of the National Parliament to provide research the desired priority. It will evaluate, allocate, coordinate and harmonize nationwide research programmes.
- Big industrial and business houses will be approached by the universities for endowment to enrich their resource base. A strong university-industry linkage and collaboration for research and institutional arrangements for commercialization of university research outcomes will be established.
- University Digital Libraries (UDLs) will be made more interactive and participatory.
- BdREN will help in avoiding the congestion, delays, hassles, interruptions, and other limitations due to overbooking and competing traffic in shared commercial internet. Real time, distant-based teaching-learning facilities of BdREN will be made available for all tertiary education institutions.
- Review will be undertaken of current plans and initiatives for improving quality and relevance of tertiary education, identify needs for modification and/or or new emphasis in these initiatives and establish guidelines for target areas and target-setting for quality and relevance by 2025 and longer term.
- Projections will be made for numbers and proportions of total teachers in different major categories of tertiary education institutions participating in continuous professional development.
- Increasing numbers and proportions of enrolment in STEM disciplines in public and private universities and colleges will be planned.
- Development and implementation of a plan for bringing all tertiary institutions under workable academic accreditation systems focusing on creating conditions for quality improvement.
- Review of programmes and provisions for research in institutions of higher learning, developing a plan for encouraging research, larger investments in it, collaboration with private sector and public agencies, and building research capacity in academic programmes and faculty development. Indicate outputs, activities and timeline.
- Development and implementation of a reform plan for student learning assessment that encourages deeper learning, acquiring and applying practical skills and creativity and discourages reliance on rote learning and memorization. Indicate outputs, activities and timeline.
- Development and implementation of a programme of curricular change, teaching-learning practices and student assessment aiming to produce graduates who are responsible individuals, community members and national and global citizen guided by a moral and ethical compass, to be realized through academic and co-curricular activities.
- Development and implementation of a plan, involving the two Ministries of Education, University Grants Commission, National University and Open University, for professional preparation of the nation's school teachers and other education personnel of the school system -- aiming to build professional preparation of school education workforce into the

regular 4-year undergraduate education programme, attracting the most capable young people into teaching profession with incentives, and ensuring quality in this programme.

GOVERNANCE AND SYSTEM MANAGEMENT

There is no common overall legislative provision or act that governs all tertiary education institutions. Different universities are governed by legislation specific to each institution. There is insufficient enforcement of regulations among the vast number of degree colleges under the National University. NU does not have the resources to provide the necessary supervision and quality control of the institutions whose students receive their degrees from NU. Despite some attempts to improve the situation, quality assurance mechanisms are inadequate across the sub-sector. The tertiary level madrasah education (viz., Fazil and Kamil, equivalent to degree and masters level) institutions come under the affiliating body, the Islamic Arabic University. There is a perception that the different laws in existence for regulating different types of institutions are characterized by inconsistencies and gaps and do not promote effective governance and accountability of institutions. Strengthening the role and capacity of UGC to fulfill its oversight responsibility, therefore, is a continuing concern.

Outputs

With a view to ensure the desired improvement of governance and system management of tertiary education in Bangladesh the following outputs are set for the ESP:

- Maintaining and increasing institutional autonomy based on set performance criteria to improve flexibility and productivity of institutions consistent with the mission of tertiary education
- Bringing in all tertiary education institutions (from all streams) under a common legislative framework
- Enhancing effectiveness of the Accreditation Council to guide, supervise and monitor the programmes in all streams of tertiary education in order to apply globally acceptable quality standards
- Providing facilities and funding for research and publication, periodic review and self-assessment of faculty research, and reward/recognition for high quality research
- Ensuring enhanced decentralization and autonomy of National University and its affiliated institutions
- Encouraging private participation and endowment support for tertiary education institutions
- Resistance to political interference in academic affairs and overall management of tertiary education institutions
- Enhanced faculty management for efficient delivery of services and preventing wastage of resources
- Introduction of performance-based funding for tertiary education institutions
- Strengthened role and capacity of UGC to fulfill its mandated oversight responsibility of tertiary education in the country.

Targets

To attain the outputs the following targets have been set to be achieved between 2021 and 2025:

- Operationalization of the National Accreditation Council Act 2017 to ensure institutional mechanism to guide, supervise and monitor the tertiary education programmes with a view to ensure globally acceptable quality standards
- Adoption of Bangladesh Qualification Framework (NQF), to guide quality enhancement activities in tertiary education, in keeping with applicable international quality frameworks
- Short- and long-term (1 year to 5 years) strategies developed by all institutions with clear objectives and focus on outcomes that support teaching-learning and innovation reflecting national drive for skills development and high-value research
- All tertiary education institutions enjoying a significant level of academic and financial autonomy to be granted on condition of meeting performance criteria to enhance flexibility and productivity in their activities
- All new public universities brought under a unified model "Umbrella Legislation" instead of each new public university being governed by different legislative arrangements
- Amending the Private University Act 2010 to ensure better representation of all stakeholders including the government
- Capacity of the six regional centers of the National University enhanced to ensure more academic activities including training of college teachers, enhancing efficiency with decentralization
- Preparing and maintaining a robust faculty management system by all tertiary education institutions for efficient service delivery and prevent system loss and wastage of resources
- University governing bodies adopting of "guiding principles" to protect tertiary education from undue political interference including Code of Conduct for teaching and administrative personnel and students
- Deciding on plan and developing consensus of stakeholders to strengthen UGC's oversight.
- Universities receiving performance-based funding instead of funding based on personnel employed and establishment costs
- Policies/strategies in place for all tertiary education institutions to mobilize additional funds from alumni support, linkages with industry/businesses and generating own income.

Activities

The following activities will be undertaken between 2021 and 2025 to ensure the targets are achieved:

- Review and assessment of current plans and initiatives for governance and management with improvement regarding their comprehensiveness (covering major subcomponents of tertiary education and addressing key concerns), identifying needs to modify or add to the initiatives, and determining what can be achieved in next ten and five years. Indicate outputs, activities and timeline
- Development of a plan for strengthening the management capacity and performance of the National University and the Islamic Arabic University, (as the affiliating bodies, serving the vast majority of tertiary students), focusing on decentralizing the structure and functions of governance and management, devolving greater autonomy to high performing institutions, and enforcing quality standards more rigorously

- Review of current legal frameworks and governance arrangements for public universities, examining the barriers to effective governance, considering incentives for reform implementation including "hands-off" government role and greater autonomy for high performing institutions and initiating a phased trial
- Development of a plan and strategy for delinking students and faculty groups from national partisan politics, as part of university governance reform with phased implementation in institutions willing to join the reform
- Review of legal framework and structure of governance of private universities, identifying obstacles to good governance and the need to reform and beginning phased implementation with willing institutions, aiming for gradual wider application
- Review of structure and capacity of UGC in relation to the scope and range of its functions and suggesting areas for strengthening and building capabilities, developing a plan and proposing phased implementation
- Establishing benchmarks for per student capital and annual operational expenditures for major categories of tertiary education – public general university, private general university, technical and specialized university, affiliated colleges
- Developing estimates for allocations required for projected growth of tertiary education by 2025 by major categories
- Prioritizing higher education in national budget allocations
- Introducing performance-based budget for financing public universities
- Establishing Higher Education Management Information System (UHEMIS) in all universities and connecting them with NHEMIS in UGC
- Assessing work underway on strengthening UGC, reorganizing it and taking steps to accelerate the process

The outputs, targets and activities presented above under the heading of access and equity, quality and relevance, and governance and management are in line with SPHE, which reflects stakeholder views and enjoys endorsement of UGC. For this sub-sector, therefore, the ESP has essentially taken the SPHE content and incorporated it as the sub-sector plan for 2021-25, adapting the targets and strategies indicated in SPHE. However, various stakeholders, while agreeing broadly with the priorities and objectives of SPHE, have commented on the feasibility of achieving the objectives within the given timeframe.

In carrying out the plan and working out the action plan for implementation, several issues will be given due consideration. For example, the quantitative targets for enrolment -- increase by one-third in total enrolment, by similar proportions in female students, and from the two bottom income quartile households in five years --are likely to create complex issues of managing competitive tertiary education admissions, selecting deserving candidates and perceptions about fairness in university access, especially in public universities. Applying the criteria to private universities will be more difficult, if not impossible.

The affirmative steps proposed for equity in access are desirable, but they have to be implemented keeping the larger picture of promoting quality and effective governance in view. A case in point, substantially increased access for the two lower quartiles are contingent upon measures to reduce disparities in pre-tertiary school education so that the pool of qualified entrants to higher education becomes larger. Moreover, application of the 'quartile' criteria and making it fair in reality and in perception will be complex and may open the door for corruption.

Thoughtful approaches will be needed to address inequities in tertiary education that are rooted in circumstances of the larger society, which means proceeding cautiously and keeping progress under review.

The expansion of institutions and infrastructure will have to be matched by laboratories, equipment, furniture and teaching staff, which have proven challenging in the past. Expansion at the cost of accepting deficient quality and wastage of resources, as witnessed in the past, is a likely risk that cannot be ignored.

In respect of quality improvement in the sub-sector, there is an emphasis in the targets and activities on numbers and expansion, whereas quality and relevance criteria by their very nature call for looking beyond the numbers and ensuring the qualitative aspects of the objective are achieved. Non-quantifiable targets also have to be defined with a degree of specificity so that progress and results can be assessed. A mechanical approach of tick marking numerical and other targets will not produce desired results. It would be necessary to assess the targets and activities mid-term at the end of the second year of the plan and make appropriate modifications.

It is anticipated that UGC as the apex regulating body will take the lead in initiating these activities, inviting at the beginning interested institutions and faculty members to be involved – gradually enlarging the circles of participating institutions, academic departments and faculty members. UGC will also take the initiative to monitor and review progress and modify targets and activities as necessary involving stakeholders. Realistic formulation of a rolling action plan, allowing periodic adjustments and breaking it down to annual activity plan would be essential.

Given the relatively short ESP time frame of five years for the wide-ranging activities, the activity plans may have to be modified through a mid-term assessment of progress and constraints at the end of the second year of ESP period, which will be the fifth year of SPHE.

4. SECTOR REFORM (CROSS-SECTORAL) STRATEGIES

The sub-sectors of education – issues of access and equity, quality inputs and outcomes, and governance and management specifically for the sub-sectors -- have been discussed in chapter 3. In this chapter, major cross-cutting issues, which present special difficulties for the sector as well as potentials for the sub-sectors in varying degrees, are discussed and necessary steps are proposed.

The cross-cutting issues may be enumerated, described, and categorized in different ways. Two major cross-cutting areas in education – overall improvement in education governance and management and adequacy and effective use of education resources are discussed in separate chapters (chapters 5 and 7). Education development discourse and ESA consultations have pointed to other critical cross-cutting concerns which have been noted in the ESA. These are given attention in this chapter, grouped under five headings as below:

1. Supply and quality of the education workforce for school education.
2. Implications of climate change and natural and man-made emergencies including the Forcibly Displaced Myanmar Nationals (FDMN) in Bangladesh and the COVID-19 pandemic.
3. ICT for and in education, 21st century skills and the Fourth Industrial Revolution.
4. Inclusion priorities including children with special educational needs, incentives – stipends, mid-day meal, and free books -- and girl-friendly school facilities.
5. Assessment of student learning and system performance.

These are not novel concerns and are not unrelated to the sub-sector areas discussed in chapter 3. Aspects of these issues have been considered in the sub-sector outcomes and targets. The premise behind further discussion of the cross-cutting issues is that sector-wide, broad, and longer-term changes regarding these matters also must be considered. It will be evident that necessary measures in this regard do not readily fall within the current planning and implementation arrangements for the education system based on the sub-sectoral structures. Besides examining the priorities and actions related to these cross-cutting issues, the workable approach to pursuing, planning and implementing these actions also must be considered.

Aiming for transformative change in the education system

The cross-cutting issues are about sector-wide, broad, and longer-term changes considered necessary in the education system to serve national development priorities and aspirations. The discussion of the cross-cutting issues does not neatly fit into the frame of three pillars or major sub-goals of ESP (viz, equity-access, quality-relevance, and governance-management) used in presenting the education sub-sectors for two reasons. First, the sub-sector discussion is related directly to delivery of services for various stages of education and reaching the beneficiary learners in these stages. It tends to neglect the interfaces, inter-connection and mutual complementarity of sub-sectors. The sector-wide cross-cutting concerns transcend sub-sectors. Secondly, the cross-cutting areas are expected to capture the broader contextual barriers to improvement in education and obstacles to transformative changes in the system. This effort must be undertaken going beyond the current structure and pattern and more immediate operational concerns.

The cross-cutting objectives and targets are thus expected to contribute to achieving transformative outcomes related to more than one or all of the sub-goals across the sector and

require taking a longer-term view. Focused on transformative change, the objectives and targets proposed are about better understanding, articulation and delineation of the change to be achieved and initiating action towards change in the education system. The aim is to go beyond continuation mainly with expansion and incremental improvement of services within the present sub-sectoral structures.

In dealing with the cross-cutting areas it is necessary to seek clarity and consensus about the nature of the problems and defining the pragmatic and workable solutions supported by policy decisions. The tasks and steps in these areas, therefore, are somewhat different from those in the sub-sector areas. The tasks and next steps are presented in this case as objectives and targets, recognizing that detailed outcomes, outputs, and activities require further delineation – more than in the well-established and on-going sub-sectors. The outputs and targets indicated for the cross-cutting areas are more in the nature of review, assessment, and consensus building regarding what is to be done so that the appropriate outcomes and interventions can be worked out. It should be noted that the targets are essentially qualitative for which the template of baseline values and final year targets used in chapter 3 does not apply. In most cases there is no baseline as such and the targets are conceptual models, articulation of ideas and solutions and the mapping out a strategy which will lead to planned action. The outputs and activities and timeline will be worked out in the annual plan of action. These are captured in the results framework as "assessed progress" in respect of the stated objectives.

The current situation and the challenges for the five cross-cutting issues in the education sector and the related objectives and targets are presented below.

4.1 EDUCATION WORKFORCE FOR SCHOOL EDUCATION

Current status and challenges

It is well recognized that the skills, motivation and performance of teachers are central to improving the quality of education. New thinking about teachers and other education personnel, going beyond current practices and arrangements, is essential to bring about better learning outcomes for students.

The discussion in this section relates to education workforce for school education (pre-primary to grade 12 and the equivalent madrasahs stream) taking a longer-term view of transformation needed in this respect. Policies, strategies and plans for teachers' professional development, teacher motivation, as well as for teacher recruitment and deployment in Bangladesh are noted in various documents on policies and plans such as the 7th Five Year Plan, Education Policy 2010 and education sub-sector programmes. These initiatives have led to an emphasis on continuous professional development of teachers at both primary and secondary levels and a wide range of in-service teacher training activities.

However, a holistic teacher policy or a teacher development master plan which creates a conducive overall policy environment for this purpose is lacking (SDG4 Strategic Framework, 2018). Importance of a teacher policy, given the centrality of the teacher's role and performance in improving student outcomes, is being increasingly realized in many developing countries (World Bank 2013).

The Primary Education Annual Sector Performance Report 2017 (DPE, 2017) states that as of 2016, the percentage of teachers who met minimum professional qualifications (at least having a

C-in-Ed diploma) was over 94 percent. However, the report also revealed weakness in use of the training received by teachers in the classroom and actually making a difference to students' learning outcome as a result of the training. There are substantial numbers of vacancies in primary schools, both in teaching and management posts of head-teachers and education officers across Bangladesh, while student-teacher ratio remains high and total learning time in school low by international comparison.

The Education Watch report of 2018-19 focused on quality aspects of secondary level teachers (CAMPE, 2019). It revealed that in terms of self-perceived competency of teachers, over 17 percent of the secondary teachers consider themselves to be below average performers. More than 22 percent of them reported being engaged in private tutoring. The actual situation is likely to be worse than this self-reporting suggests. Longstanding problems related to teachers' incentives and their links (or lack of these) with career development, performance standards and professional support and supervision also remain a concern. The recent government approval ofprimary teachers' and head teachers' higher salary grades at higher levels has been a positive step.

Bangladesh, along with countries in South Asia, unlike other regions of the world, does not have a well-established and widely used pre-service teacher education programme, though school teaching is the single largest field of employment for college graduates. The common practice is to recruit graduates from any discipline as primary and secondary teachers and then send them for one-year to 18-month pedagogy training. Since school teaching is not the first choice as a career for higher education graduates, especially the talented ones, in the most of cases, it ends up attracting the "bottom of the barrel" of the graduates. The need to think afresh about attracting and keeping talented people in the teaching profession has been raised frequently in education discourse in Bangladesh and is recognized as a major challenge for improving education system performance.

Supply and numbers in the education workforce

As of now, education personnel at the school level basically means teachers, because the other functions than traditional classroom teaching are generally not recognized yet in the personnel composition for schools. In 2018 there were 685,000 primary teachers in 126,000 primary schools of different types with a total enrollment of almost 18 million students in Grades 1 to 5. The overall primary level Student-teacher ratio (STR) was 30. In lower secondary the PTR was higher, at 34; in higher secondary much lower, at 15. At the secondary and higher secondary level, the mainstream schools had 680,000 teachers with 15 million students in grades 6 to 12 (UIS, 2019).

The overal lnational STR does not represent the common scenario on the ground in Bangladesh as in any country. The geographical distribution of schools, the various types of school, student enrolment per school as well as actual presence of teachers and students in classrooms combine to determine the meaningful STR for teaching and learning. Some schools may have more students than the standard level in a class with a single teacher. At the secondary level, interpreting the national STR is more problematic than at the primary level. It needs to be lower than at the primary level because teachers need to be qualified to teach specific subjects.

Bangladesh will need to increase its teaching workforce significantly in the coming decade to maintain a reasonable overall STR, besides dealing with normal turnover. Apart from the financial

implications, teacher remuneration being the dominant cost item in school budgets, measures are needed to improve recruiting, preparing and supporting professionally the large numbers, while ensuring quality of performance of teachers.

Professional preparation of the education workforce

Besides not having a pre-service professional preparation requirement, "the existing teachers' training system of our country is very traditional, insufficient, certificate-based, loaded with theoretical knowledge, incomplete in practical learning, based on rote learning and conventional testing system,'' according to the 2010 National Education Policy (NEP). The NEP mandates that "training programmes should be made more realistic and effective… the establishment of non-government training institutions of inferior standards will be discouraged. Rather, the number of government institutions will be increased to a rational number [with] full residential facilities… to make training programmes meaningful and effective.'' (MoE, NEP2010, Ch. 24 on Teacher Training)

As noted, various initiatives have been taken since the 1990s to improve teachers' professional development, skills and performance at primary and secondary levels. The results from these efforts reveal the need for continuing efforts and redesigning some of the activities. Three broad conclusions can be drawn from the initiatives for teachers' professional preparation:

1. A series of initiatives taken over time have addressed various aspects of the range of problems as projects which need to be followed up with continuity so that they contribute to cumulative progress and institutionalization of reform in a sustained way.
2. The successive initiatives for change, partly supported by external assistance, have been conceived and implemented mostly within the existing pattern and approach for teacher preparation, management, performance standards and incentives, need to be examined and redesigned to address the system problems holistically.
3. Most importantly, the reform ideas so far have not addressed sufficiently the critical issues of the absence of a system of pre-service professional development and not attracting to and retaining in teaching profession more of the intellectually capable and talented young people.

Creative thinking and action are needed to realize the change foreseen in the NEP ten years ago in the "very traditional, insufficient, certificate-based, and loaded with theoretical knowledge, incomplete in practical learning, based on rote learning and conventional testing system."

Education personnel management

In the labor-intensive education sector, effective management of personnel is particularly important. Various aspects of human resource management including management of the teaching personnel need attention. These include, as noted above, the inadequacy of numbers, lack of a career path, emphasis on formal credentials rather than performance, link between pedagogy training and teacher and student performance, work burden of teachers including their non-teaching duties, ways of linking incentives/remuneration and performance of teachers, targeted professional support and supervision, and ultimately, attracting and retaining the meritorious in the education workforce.

A survey and stakeholder consultation to look at preparation and professional training of primary and secondary teachers, teachers' economic status and income, supervision and evaluation of

teachers, and teachers' perceptions and expectations about their work highlighted the factors mentioned above. Taking into consideration these points, a recommendation made by the stakeholders was to adopt a pre-service teacher education program making it part of the four-year undergraduate general degree program with education as a subject area in the degree colleges. (CAMPE, 2015). Deficiencies in knowledge about the subjects in the school curriculum, pedagogic skills and aptitudes of teachers, grooming would-be teachers with appropriate attitudes, values and inter-personal skills are challenges in most education systems. These challenges call for a deep and intensive professional preparation of sufficient duration that a purposively designed degree program would allow (Martin, 2018).

An education workforce fit for the purpose

Efficiency and effectiveness of governance and management of the teaching workforce cannot be separated from the purposes of education and the teachers' role in realizing those purposes. SDG 4.7 targets indicate the range of education objectives in the context of the sustainable development goal, which call for balancing the needs of current and future generations. There is an expectation that school is the setting where young people can learn and practice ethics and values.

A new professional preparation model

A professional teacher development approach, *following the concurrent approach of combining subject content and pedagogy* in the four-year degree programme, instead of the present sequential model, along with measures regarding career path, incentives and social status of teachers, is the approach likely to break the vicious cycle of poor teacher quality and poor student learning (Ahmed, 2015; Ahmed, 2018).Key elements of the model include:

- A pre-service teacher preparation programme can be incorporated into the undergraduate degree programme with education as a subject in one or two government colleges in every district, considering demand, or in public universities. Students will receive a BA or BSc degree, depending on the combination of other subjects taken along with education as the major area, in addition to a teaching certificate, on completion of a required practicum. Moreover, a Master's program on education can also be introduced for the bachelor degree holder on any subject.
- Young people after higher secondary education must be attracted to the general college education degree course that includes pedagogy, effective communication and IT skills as subjects. They must be selected competitively and with incentives, such as stipends, and job assurance.
- Academic and other quality standards required by the National University and UGC (not adequately enforced at present) must be strictly enforced in selected colleges/ public universitiesfor this initiative. Financial and personnel provisions must be made for this purpose under a special project.
- An arrangement with attractive remuneration, status, and career path has to be established for school education workers who, in a reasonable time, will form a nucleus of quality education personnel in schools and bring about a qualitative change in teaching and learning.
- The role and functions of the present PTIs and Teachers' Training Colleges can be re-purposed to undertake a systematic and massive continuous in-service professional development programme for teachers and other education workers to support them for

their diverse tasks and responsibilities in transforming teaching-learning in schools (Ahmed, 2018).

A beneficial by-product of this initiative, if properly implemented, would be to show the way for a qualitative change in the colleges under the National University (Ibid.)

The degree programme has to be established in a sufficient number of four-year colleges, one or two in each district considering demand, ensuring quality in facilities, faculty and the academic program. Other necessary steps, such as career path, and enhancing social status of teachers have to be parts of a package. The measures to raise the status, rewards and social esteem of teachers will require establishing performance standards for teachers and applying them with transparency and fairness. It will be a step towards eliminating eventually the discrimination regarding government and non-government school teachers.

The new thinking about the education workforce can be implemented only by adopting a longer term approach by preparing the ground, rolling out the plan gradually, taking in confidence the education stakeholders, including teachers and parents, and applying a transition arrangement so that there is no disruption in the on-going school system. As the new graduates emerge from the programme, they would be integrated into the system and over a period of 10 to 15 years a change in the system will become evident. The present arrangement and current lateral entry into teaching will continue simultaneously during the transition, perhaps inspiring the current teachers to aspire higher and perform better. However, unless a beginning is made now, the change will never be realized

The teaching profession comprises at present over one million people in Bangladesh and is likely to grow substantially in a decade. They touch the lives of millions of young people in the classroom and outside. Even if only a fraction of the members of the teaching profession are guided by determination, motivation and moral strength in their interaction with their students, this will mark the beginning of an educational and social transformation.

Objectives for improving the quality and performance of the workforce for school education

- Taking significant steps towards adequacy in numbers of the education workforce for different levels of school education in the ESP period taking a ten-year perspective and in line with anticipated changes in teaching-learning methods and approaches, varied roles and functions of learning facilitators under new pedagogy, enhanced role of education technology, and appropriate student-teacher ratios.
- Developing and implementing a professional preparation approach following the 'concurrent model' for the education workforce that attracts and retains talented people in the profession and prepares them for the varied roles and functions of facilitators of learning in a changing learning scenario.
- Developing and implementing various measures complementing the new professional preparation model including career paths for the education personnel, continuing professional development and support, induction and mentoring, remuneration and incentives, performance standards and social recognition and status of education personnel.
- Governance and management mechanisms and institutional arrangements for professional development of the education workforce, providing support and supervision

for the education workforce, establishing and applying performance standards, and assessing progress and outcomes of this enterprise.

Targets for education workforce

- Development of a model of a preferred composition of the education workforce by major types of personnel (such as teachers, administrative personnel; counselors, education technology personnel, school nurse and others) for different levels of education and institutions (pre-primary, primary, secondary, higher secondary), as well as steps towards adopting this model.
- Estimating growth in percentages for categories of the education work force prepared by stages of school education by 2025, with a perspective of growth by 2030.
- Preparation of a programme for education workforce professional preparation through a concurrent approach (incorporating education as a major subject in the fouryears bachelor (honors) degree on education or bachelor degree on any subject with a master degree on education, involving key stakeholders (DPE, DSHE, National University, UGC, among others). It needs to focus on curriculum, teaching faculty, student assessment, selection criteria and maintenance of standards of institutions which offer the professional preparation course and overall quality assurance.
- Development of a strategy and programme for continuous professional development (CPD) objectives of education personnel (classroom teachers and others), outcomes and norms for running the CPD, complementing pre-service professional preparation-- with special reference to current practices in this regard, results desired in pedagogy practices and student learning; setting personal professional development goals including self-learning by education personnel, effective use of ICT, induction and mentoring of new personnel, school-based professional development activities; and incentives for professional development.
- Issues of governance and personnel management of teachers and education workforce examined and reforms recommended -- with reference to current practices and desired changes in recruitment, deployment, remuneration structure; financing for the total system of government schools and applicable supports for government-supported and private schools;. Indicate outputs, activities, and timeline.

Implementation Approach

It is recognized that the kind of change proposed will have to be based on a common understanding and shared objectives of the main stakeholders and will take time to implement. A Technical Assistance (TA) component needs to be used to further elaborate and clarify the objectives and targets indicated, consult with key actors and develop a common understanding and implementation plan. The TA will be used, particularly, to recruit expertise and arrange to:

1. Develop an implementation plan based on a feasibility study for a new teacher pre-service training program.
2. Evaluate the updated DPEd and BEd programmes and recommend transition to a new pre-service programme for school education, and
3. Recommend improvement and scale-up the continuous professional development (CPD) of the education work force for school education, with existing teacher training institutions re-purposed for CPD.

Keeping these three tasks in view, the TA component will support MoPME and MoE in redesigning the education workforce role, performance, preparation and personnel management, including the following:

- System capacity building and investment in education personnel preparation and continuous professional development,
- Examination of the teacher development and training activities in PEDP and SEDP in the light of the proposed re-thinking about education workforce and helping to maximize the effectiveness of the substantial investments in teacher quality in these programmes,
- Assist to prepare teachers to engage in remediation and support for struggling students in schools and classrooms, especially in the context of post-COVID-19 recovery and implications of climate change and other emergencies, and
- Contribution to bridging the primary to secondary transition across the two ministries through shared activities to adopt a whole school sector view of the education workforce role and performance.

It is emphasized that the new initiative will unfold over a long time through a ten-year plan, its effects becoming evident gradually, while the school system will continue to function under current arrangements. The implementation arrangements for the technical assistance mode for all the cross-sectoral issues are discussed further in chapter 6.

4.2 IMPLICATIONS OF CLIMATE CHANGE AND NATURAL AND MAN-MADE EMERGENCIES

Climate change is a major, pervasive, immediate and longer-term concern for educational development. Nature-induced emergencies are related to and aggravated by climate change. Bangladesh is also coping with the influx of a million Forcibly Displaced Myanmar Nationals (FDMN), commonly known as Rohingyas, – a man-made emergency. The COVID-19 pandemic has affected life, health and well-being of people as in other countries. The impacts of these two emergencies are far-reaching and multi-dimensional.

Besides specific and early responses to emergencies, there is justification for looking at the deep, longer term and pervasive impact and implications for education and learning of climate change and various emergencies which have direct and indirect causal and consequential links with climate change. It also has to be ensured that specific and immediate responses to natural and man-made emergencies, necessary and important, do not neglect the transformative change needed in education purposes, contents and activities, especially highlighted in Target 7 of SDG4. This cross-cutting theme, therefore, is intended to consider, besides interventions mentioned in sub-sector discussions, the transformative changes in education demanded by climate change and other predictable and unpredictable emergencies affecting life and livelihood of people, while making progress towards sustainable development.

Bangladesh is one of the most seriously climate change impacted countries in the world. It is also a highly disaster-prone country from natural causes, which is exacerbated by climate change. The Government of Bangladesh is committed to both being prepared for emergencies and to responding appropriately, quickly and effectively to emergencies (SDG4 Strategic Framework for

Bangladesh). The strategic approach to ensure "preparedness for and provision of education in emergency" includes four elements:

- Coordination of all activities related to education's preparedness for and response to emergencies by government and the other members of the Education Cluster, a forum of education stakeholders collaborating on education response to emergencies.
- Contingency plans for response to emergencies (including for COVID-19 pandemic response) integrated into sub-sector plans and projects.
- Awareness building of emergencies and appropriate responses integrated into the curriculum and in teacher training at all levels.
- Capacity building on gender, disaster risk reduction (DRR)and crisis-sensitive planning, management and coordination for responding to and managing education in emergencies (SDG4 Strategic Framework for Bangladesh).

The framework document also emphasizes sensitizing the children about climate change and identifies households affected by climate change (especially those belonging to the lower income groups) as 'vulnerable groups' that require particular attention. A large share of children from lower income households are exposed to different types of hazards. These are likely to increase in frequency and magnitude in future due to climate change.

Vulnerability to multiple and simultaneous hazards

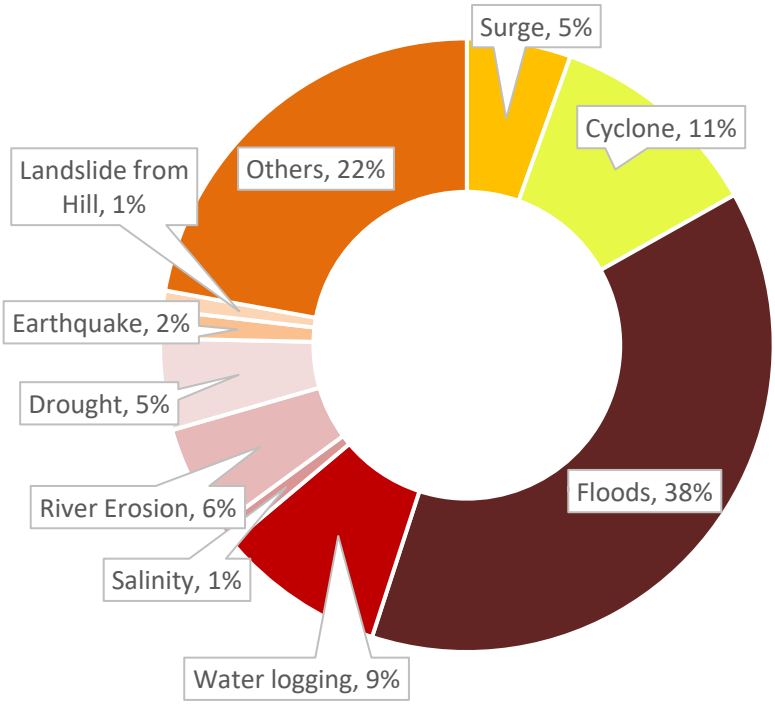
As per the latest data (BANBEIS, 2018) the major types of disasters that affect education institutions are cyclones, floods, water logging, river erosion, droughts, and tidal surge. In 2018, of all the education institutions affected by natural disasters, over one-third (38 percent) has been affected by floods. Cyclones in the coastal area have affected 11 percent, and river erosion affected 6 percent. Seasonal and unseasonal flood, flash flood, water logging, droughts and surges have also affected significant share of education institutions across the country (During PEDP3 a framework was prepared and approved by MoPME for Disaster Risk Reduction (DRR) and Education in Emergencies (EIE). In accordance with the framework a guideline was developed and approved by the government for effective planning and implementation of DRR and EIE initiatives in the primary education sector.

Figure 4.1). Institutions are often affected by multiple hazards simultaneously.

The level of response capacity and resilience of school education is low. This is because of the poverty, livelihood dependent on natural resources and inadequate climate responsive curricula, and deficient awareness and training of education personnel. Children thus become vulnerable to disasters which are likely to intensify in future due to climate change (Das, 2010).

During PEDP3 a framework was prepared and approved by MoPME for Disaster Risk Reduction (DRR) and Education in Emergencies (EIE). In accordance with the framework a guideline was developed and approved by the government for effective planning and implementation of DRR and EIE initiatives in the primary education sector.

Figure 4.1 Distribution (%) of education institutions affected by different types of natural disasters in 2018



Source: Bangladesh Education Statistics 2018, BANBEIS. Note: Institutions may be affected by multiple hazards simultaneously, which is not captured in the diagram.

Educational institutions are often affected by multiple disasters simultaneously, impeding and disrupting children's learning and even placing them in danger. Of all the education institutions experiencing damage due to natural disasters in 2018, 20 percent experienced significant damage to buildings. About the same proportion experienced damage to furniture and broken doors/windows. Connecting roads were damaged, which hindered accessibility for 13 percent of the institutions and 8 percent had their water supply disrupted due to natural disasters. (BANBEIS, 2018)

Effects of COVID-19 pandemic

The COVID-19 pandemic has caused a global havoc, disrupting societies and economies and creating large scale hazards for life and wellbeing of people. Schools have been shut down and children and families have been placed in unprecedented anxiety and uncertainty. As in all emergencies, children from lower income families and in socio-cultural disadvantage are more vulnerable than others. The priority in this instance is to keep children engaged as much as possible in learning activities at home with use of ICT and reaching out to parents and families with assurance and support. The scale and intensity of the pandemic also point to the importance of considering longer term implications for education systems of hazards leading to major societal disruption which may very well recur (UNESCO, 2020).

All educational institutions in Bangladesh have been shut since 18 March2020 due to the pandemic. The closure continues until 3 October and maybe extended. The education authorities have taken steps to broadcast primary and secondary school lessons by a TV channel used to broadcast national parliament proceedings complemented by radio and on-line dissemination. These channels do not reach all families and all parts of the country. It is estimated that only half of the households with children have a TV according to MICS 2019(MICS, 2019).

Other means of digital communication are even more limited in their reach. Nonetheless, these distance mode instructions are a positive move. There are lessons to be learned about how digital and distance means of learning can be made a regular feature of school education more effectively to improve teaching-learning and enhance the resilience of students and the school community. Better delineation of geographical locations and populations affected relatively more severely by climate change and natural disasters is needed.

A response and recovery plan to face the impact of the COVID-19 pandemic on the school system has been prepared by MoPME and MoE. Three broad results in three phases expected to be achieved within a 24-month timeframe are:

1. Children's safety and learning continuity.
2. Readiness and support for recovery and re-opening in the post-emergency period; and
3. Building system resilience through learning from the COVID-19 response and sustaining good practices. (MoPME and MoE, 2020)

The approach to dealing with the effects of the pandemic logically calls for a broad and longer-term scope of action and strategies. The short horizon approach of the plan is taken as a first step to address the immediate emergency. The background information in the proposal speaks also about the broader and longer-term implications. In fact, the success of the short-term and narrowly focused actions, quite relevant as emergency response, is dependent on a broader and longer term perspective to building a more resilient and responsive system addressing the pre-existing deficiencies in the education system. Effective implementation of the overall ESP outcomes and targets related to access and equity and quality and relevance will contribute to achieving these broader goals.

Education response to the FDMN crisis

More than 700,000 Forcibly Displaced Myanmar Nationals (FDMN), commonly referred to as Rohingyas, fled to Bangladesh in 2017, being forcibly displaced by Myanmar. Adding to previous numbers, the new upsurge brought the total FDMN in Bangladesh to over a million (Ahmed, 2020). Since the 2017 influx of the FDMN into Bangladesh, around 0.3 million children and youth have been pursuing learning activities in 32 camps with the support of GoB and development partners. The learning activities are based on an informal curriculum called the Learning Competency Framework and Approach (LCFA) under the approved guidelines of the National Taskforce (NTF) on Forcibly Displaced Myanmar Nationals. Since 2019, under the Reaching Out-of-School Children (ROSC) Project-II of MoPME, education access has been provided by various education development partners including I/NGOs to children aged 4-14 years. Based on the LCFA learning initiatives for up to grade 5 (for ages 8-10 years) children are participating in lessons on Myanmar and English languages, mathematics, science and life skills.

The Bangladesh government decided in January 2020 to organize school-level education for older children up to age 14. In line with the government's decision, the education sector for the humanitarian response in Cox's Bazaar now plans to pilot the introduction of the Myanmar curriculum in the FDMN camps.

Activists and the UN and humanitarian community praised the decision as a positive step and an indication of the commitment by the government of Bangladesh to ensure access to learning for FDMN children and adolescents. This would help equip them with the skills and capacities for their future and return to Myanmar when the conditions permit.

Natural disasters – a recurring climate hazard

A map based on data derived from different sources shows a broad depiction of climate risks and disaster-prone areas (Annex VI of ESA). These comprise southern coastal and low-lying areas, the eastern hill areas, the north-eastern *haor* areas (submerged under water for a major part of the year) as well as the areas along the large rivers (large sandbanks and shoals created by shifting rivers, where people settle down seeking livelihood in farming, fishing and animal raising). These add up to parts of half the districts in country. These circumstances affecting a large proportion of households and children need to figure prominently as an essential element in educational development priorities, operational plans and programmes. More specific breakdown of vulnerabilities within districts is needed to assess situations and plan accordingly. The geography-based and population group vulnerabilities also are a strong argument for decentralized planning, management and response mechanisms for education programmes within an overall policy and strategy framework.

It cannot be predicted when and where the climate-induced hazards – cyclones, floods, tidal waves, river erosions, landslides, breach of dykes and dams, and drought – will hit in a particular year, but it can be predicted that every year certain locations and a proportion of the population will be hit hard or moderately. Educational planning and development, including operational and development budgets for education, therefore, must provide adequately for the predictable hazards, as far as the total system is concerned. There also has to be a system of rapid assessments and rapid response for these hazards. Moreover, educational content and objectives also need to build in the knowledge, understanding, skills and capabilities to cope with and live with the recurring hazards and the broader effects of climate change.

Need for a transformative view

The COVID-19 pandemic has broad causal and consequential links with the effects and implications of climate change, which is the pervasive and all-engulfing influence on shaping the present and the future of humanity and life on the planet. Human invasion of the natural habitat of other life forms has raised the risks of new mutant pathogens that cross over from animals to humans resulting in such a havoc as the COVID-19 pandemic. This pandemic is not likely to be the last one.

Specific and immediate responses to the emergencies are underway along with consideration for medium term coping mechanisms. The effects of the emergencies are deep and not just a matter of going back to the "old normal" once the emergency is over. There is at the same time an opportunity and challenge to imagine the "new normal" that takes on board the interconnected impact of climate change and emergencies. This entails considering transformative education responses for strengthening behavior pattern, values, creativity and resilience of the new generation of learners to build a sustainable world and sustainable societies. SDG4, the overarching education goal and Target 7 on purposes of education envisage the kind of transformation needed.

As part of school education curriculum reform, as noted in chapter 3,a move has been taken to follow a seamless curriculum up to grade ten and to delay streaming of students into disciplinary areas (science, humanities, business, etc.) until grade 11, rather than at grade 9 as at present. This is a step towards building a common foundation of basic competencies for all students, The aim is to equip all young people with basic skills and competencies, not forcing them to make future

life choices too early, and also help them inculcate the common values and attitudes necessary to grow up as responsible individuals and citizens. The success of this measure will depend on adequate provisions for qualified teachers and necessary change in teaching-learning embracing classroom and co-curricular activities.

Objectives of education responses to climate change and emergencies

The objectives to be achieved through the ESP within a longer-term view extending to 2030 that embraces overarching Sustainable Development Goal (SDG4) for education are:

- Developing and applying a workable approach to reforming curricular content and objectives for promoting sustainable development and related aspects of climate change and coping with emergencies. Special attention has to be given to appropriate teaching-learning practices, teacher support and skills, and assessment of student learning outcomes.
- Developing and planning necessary links, assessing current provisions and practices, between school education system responses in emergencies and national emergency preparedness and responses (including for COVID-19 pandemic response)with special attention to budgets and planning for educational budgets, development investments and plans for school operations – recognizing patterns of vulnerabilities and hazards, decentralized decision-making, and community involvement.
- Promoting appreciation of the culture and behavior reflecting resilience and adaptability to challenges arising from the effects of climate change and emergencies through curricular and co-curricular contents and activities in schools.
- Development of ethics and values among young people appropriate for sustainable living, living in harmony with nature and people through curriculum steps, teacher performance, school and classroom practices, assessment of learning and school-community-parents cooperation.
- Capacity development and enhancing awareness among stakeholders for facing challenges related to climate change and disaster risk reduction in schools and communities. Addressing the psychological impacts and adaptation to situations during and after disasters would be an integral part of strategic educational planning for continuing learning.

Targets for education response to climate change effects and emergencies

The following targets for the ESP are proposed to achieve the outcomes:

- *Review* undertaken of on-going plans, activities, objectives and outputs regarding reforming curricular content and objectives for promoting sustainable development and related aspects of climate change and coping with emergencies
- Based on findings of the review, *strategy*developedand priority actions indicated for workable school system responses to effects of climate change and probable emergencies --with special attention to appropriate teaching-learning practices, teacher support and skills, and assessment of student learning outcomes for different stages of school education (pre-primary, primary, secondary, and higher secondary and equivalent madrasahs)

- Following the National Task Force (NTF) guidelines, *review* of the status, progress and prospects of education's response to the FDMN situation, *summarizing* the national strategy for education services to FDMN children and the host communities;.
- *Review* of education related content in the current national emergency preparedness responses as well as school education provision related to climate change and emergencies (including for COVID-19 pandemic response); and *development* of criteria and plan for educational development investments and budgets and plans for school operations – recognizing patterns of vulnerabilities and hazards, need for timely and adequate response, decentralized decision-making, and community involvement.
- *Review* of prevailing concepts and practices in school education on the culture and behavior reflecting resilience and adaptability of society to effects of climate change and emergencies including COVID-19 response, especially in curricular and co-curricular contents and activities in schools; *development* of programme and plan for promoting appreciation, encouraging practices and acquiring knowledge/understanding of resilience, adaptability behavior and value orientation of students, teachers and parents.
- *Review* of school education objectives and practices regarding promotion of ethics and values among young people appropriate for sustainable living, living in harmony with nature and social and cultural diversity through curriculum measures, teacher performance, school and classroom practices, assessment of learning, and school-community-parents cooperation; and *development* of plan for necessary strategy and actions in this respect at different stages of school education from pre-primary to higher secondary.

A technical assistance mode will be used to detail out further implementation measures and taking steps for achieving the objectives and targets. See discussion below and in chapter 6.

4.3 ICT FOR AND IN EDUCATION, 21ST CENTURY SKILLS AND THE FOURTH INDUSTRIAL REVOLUTION (4RI)

Current status and challenges

The GoB, as per its "Vision 2021," is committed to ensure application of Information and Communication Technologies (ICT) in all spheres of development espousing the aim of building "Digital Bangladesh." To this end, the Ministry of Education put forward the Master Plan for ICT in Education in Bangladesh (2012-2021) with the intention of "modernizing and revolutionizing Bangladesh's education system through the use of ICT, promoting technology-based teaching and learning as a strategic lever to achieving Bangladesh's Vision 2021" (MoE, 2019).

Closely related to the challenges and opportunities presented by ICT are questions about the educational responses to the imperatives of two interconnected concepts – the 21st century skills and the 4th Industrial Revolution.

The latest progress report regarding implementation of this master plan has pointed out key achievements, such as, introducing multimedia classrooms in schools, preparation of the ICT curriculum at the secondary level, and awareness raising campaigns about the digital portals for teachers and students under the Access to Information (A2I) Programme (MoE, 2019).

With schools closed all over the country due to the COVID-19 situation and students confined to their homes, education authorities have initiated broadcasting of school lessons through the public TV channel used for broadcasting national Parliament sessions. Limited access to the Internet and even to smart mobile phones with wi-fi connectivity for the average student has stymied a broader range of ICT-based education activities. The pandemic has brought out the difficulties and constraints regarding effective use of technology in education.

The major challenges in enhancing utilization of ICT in education, as identified in the latest progress report on implementation of the ICT in education master plan (MoE, 2019), are:

1. inadequacy in terms of infrastructure,
2. lack of proper internet connectivity,
3. lack of access to electricity,
4. availability and maintenance of equipment,
5. need for further sensitization,
6. ensuring quality of the services delivered,
7. capacity constraints of the human resources, and
8. improving monitoring and reporting practices.

Physical structures of education institutions in many rural and urban slum areas are in dilapidated conditions. From the primary to higher secondary level, there are shortage of classrooms for all learners and an appropriate physical environment for learning.

Education institutions rely on mobile network-based Internet services which are slow and expensive. While schools in urban areas use broadband Internet and pay according to internet speed with unlimited data, schools in rural areas, particularly in coastal areas, hill tracts and hoar areas, have to pay for each megabyte of mobile data. As a result, teachers in rural areas are less inclined to use the internet to share digital content in multimedia classrooms. According to the BANBEIS statistics, around 2,650 secondary level educational institutions, accounting for about ten percent of secondary level institutions did not have electricity at their premises. Due to several government initiatives rural electrification is improving and more institutions are getting access to electricity. However, in order to accelerate the use of ICT, it is still necessary to distribute rechargeable multimedia projectors and laptops in schools without or with limited access to electricity.

What can be done

ICT resources provided to educational institutions need to be maintained properly. The Union Digital Center (UDC) under the auspices of the Local Government structure could be used as the hub to provide technical support within the union. Learners and teachers are often not aware of educational portals and digital content developed by MoPME and MoE.However, COVID-19 has made a change in the attitude with regard to using educational portals and digital contents in a positive way, although it requires planned programmes to reach all concerned.

Awareness needs to be focused on all education actors. Parents often are concerned about bad influences arising from the use of Internet and mobile phones. Learners and parents need to be guided in the appropriate use of technology. There is a need to develop class-based and subject-based quality learning materials (including self-learning and supplementary materials) for both teachers and students.

ICT capacity development of teachers, trainers, curriculum developers, and education managers needs to be improved and be part of an ongoing capacity building programme. Knowledge acquired by training attendees, after they return to their educational institutes, needs to be better shared with colleagues

With the spread of ICT resources, real-time monitoring, feedback, and reporting mechanisms can be introduced in education institutions as part of the education management information system (EMIS). The recording and reporting burden of management related information and data can be reduced with e-filing at the institutional level. Training and orientation are needed for this purpose of education managers at institutional and higher levels.

Education for the 21st century skills and 4RI

It is necessary to ask how buzzwords such as the "21st century skills" and the "Fourth Industrial Revolution" (4RI)are understood by the education stakeholders in the context of building the digital Bangladesh and what is happening on the ground in the thousands of institutions at all levels across the country.

The Fourth Industrial Revolution (4IR) blurs the lines between the physical, digital and biological spheres in an unprecedented way. The 4IR is radically different, since it is more than only a technological shift in economic production, as the previous three were. Through the potential combination of physical, digital and biological technologies, it opens unlimited possibilities for addressing critical challenges of poverty, inequality and sustainable development. However, beyond the hype surrounding 4IR, the possibilities and challenges have to be seen from the perspective of the realities in lower-middle income countries like Bangladesh, where the majority of the world's people live. The prospects and problems are spectacularly different for most people in these countries when compared to those in wealthier countries (Schwab, 2016).

Over 85 percent of the Bangladesh workforce is employed in the informal economy, which is not regulated by worker welfare and rights standards. A third of the workforce has no education, 26 percent have only primary education and 31 percent have only up to secondary education, according to the 2017 Labor Force Survey. Over 40 percent of workers are engaged in the low-skill and low-wage agricultural sector. The concept note for the 8th Five Year Plan (FY2021-25) that is under preparation says that the overall quality of the labor force is much below the level that is needed to achieve the planned 15 percent growth in manufacturing, to expand the organized service sector, and to facilitate the transition to an upper middle income country status (Ahmed, 2020).

In the context of the changing nature of jobs, employment market, implications of new technologies including automation and artificial intelligence, which are likely to affect even the informal economy, new approaches and thinking are required about enabling young people to access skill development opportunities and upgrade their skills.

What are called the 21st century skills are not necessarily all novel, nor do they mark a clean break from what were important in the 20th century or the 19th century. There are common and timeless elements of quality and relevance for learners and the whole of society in any system of education. Education systems have always struggled to achieve and maintain these essential elements, and they have not become invalid in the 21st century (Ibid.).

The World Economic Forum formulation of 21st century skills recognizes the value of the foundational skills of multiple literacies, the essential tools for learning. This is the base on which the higher order skills of solving problems and thinking critically are built. Young people also have to be helped with social and emotional maturity and acquiring moral and ethical values—the qualities of character. A lifelong learning approach must be adopted for this. As in the case of technology adoption and adaptation, skills development and education also need to consider the perennial basic and essential elements that can respond to the diverse phases of technology, production, consumption, lifestyle and expectations in which people find themselves (Soffel, 2016).

The education authorities— the Ministry of Primary and Mass Education and the two divisions of the Ministry of Education and the National Curriculum and Textbook Board—are all engaged in a review of school curricula in the context of 21st century challenges. What is more important than formulating the curriculum is to find effective ways of implementing it in classrooms. Teachers—their skills, professionalism and motivations—are the key here. So is the way students' learning is assessed which profoundly influences what happens in classrooms and what attracts students' and teachers' attention.

In the discussion on the present status of TVET and challenges (chapter 3), the priority identified is three-fold -- to enable learners to acquire basic literacy, numeracy, communication and critical thinking skills in basic general education so that they are better prepared to take advantage of skills training opportunities; raising substantially participation of youth in skill training programmes, making these programmes attractive and relevant to young people; and making skill training responsive to changing job markets, work patterns and technologies. Looking ahead to even greater changes in the structure of the economy, the penetration of ICT in work and life, the need for continuous acquiring of new skills and the need for upgrading skills even in the informal economy activities, the skills development strategy and programme have to give greater priority to preparing youth for ICT-enabled production and services in the global market place.

Klaus Schwab, the founder of the World Economic Forum, warned that we face the danger of a job market that is increasingly segregated into "low-skill/low-pay" and "high-skill/high-pay" segments, giving rise to growing social tensions. Coping with the implications of this danger for education and skill development is a continuing concern. Numerous structural and operational obstacles to necessary reforms in education and skills formation and how to deal with these have to be addressed (M. Ahmed, 2020). (See further discussion on governance and management in chapter 5.)

Objectives of ICT, 21st century skills and 4RI

The objectives and targets in ESP for ICT, 21st century skills and 4IR are inter-connected. The objectives are as follows:

- *Review* of policy objectives pursued and progress made as part of the Digital Bangladesh vision in promoting ICT-enabled teaching-learning environment, bridging the urban-rural including hard to reach areas and other gaps in ICT capacity and use, making learning content and materials available through distance mode, enhancing education technology personnel capacity and quality, and use of ICT in monitoring and management of education programmes and institutions.

- *Strengthening and development* as needed of an appropriate strategy, objectives and plan for making ICT a regular feature at different levels of education, emphasizing a blended approach, averting a new digital divide in the education system, with a five-year (ESP period) and ten-year perspective (SDG 2030).
- *Review of the conceptualization* of and understanding of the 21st century skills and the Fourth Industrial Revolution (4IR) in relation to age suitable learning content, activities and objectives of education at different levels emphasizing the role of education technology, and basic competencies of young people. Particular attention has to be given to students acquiring the foundational skills of multiple literacies, practicing higher order skills of solving problems and thinking critically and creatively, achieving social and emotional maturity, acquiring moral and ethical values, and being adaptable to change pursuing a lifelong learning approach.
- *Development and strengthening of strategy and targets* for improving ICT infrastructure, connectivity, broad-band reach, device availability for students, content adaptation and availability, education technology support for institutions, and teacher capacity to use education technology and guide students.

Targets for ICT, 21st century skills and 4RI

- *Assessment* undertaken of expansion of ICT facilities at different levels of institutions, *plan developed, and targets set* for further expansion with a ten-year and five-year perspective with reference to ICT connectivity, hardware, digital learning material availability, and ed-tech support. This should include *a five-year and ten-year projection* for institution capacities at different levels. Particular attention should be given to wi-fi hotspots for institutions and availability of devices for students and teachers, minimizing discrimination and disparity.
- *Examination* conducted of current availability and adaptation arrangements for digital learning content with language adaptation and curricular synchronization, digital textbooks and supplementary materials (including MLE materials) on-line and off-line with targets set for 2025 and 2030.
- *Recommendation of strategy* based on critical review of curriculum reform and development activities undertaken for different levels of education, especially in common core curriculum up to 10th grade, in relation to 21st century skills and implications of 4IR; and *development* of relevant criteria and principles for curricular content, pedagogy, teacher skills and learning assessment.
- *Greater collaboration among agencies (DTE, BTEB in MOE; BNFE in MoPME and A2I in Ministry of Science and Technology)* to design ICT enabled skill development activities and to prepare youth for ICT enabled production and service jobs, both in the formal and the informal economies. In the context of the changing nature of jobs, employment markets, implications of new technologies including automation and artificial intelligence, which will increasingly affect even the informal economy, new approaches and thinking are required for enabling young people to access skill development opportunities and upgrade their skills.

- *Strengthened teachers' portal* based on review of A2I initiatives for teachers' portal and planning for e-tutorial / e-learning, among others, and encouraging ICT use for teacher and education personnel professional development, self-learning and contributing to

learning content and learning method development. The current teacher portal membership to be assessed with *projection* for 2025 and 2030.*Improved EMIS* after review of current situation and indicating steps for improving the monitoring and reporting capacities of education managers; *developing* EMIS for different levels of education with ICT applications aiming for strengthened accountability and transparency in the education system.

4.4 INCLUSION PRIORITIES

Current Status and Challenges

Inclusive education in its broadest sense, quality education for all and no one left behind, is a basic tenet of SDG4 which Bangladesh has endorsed. Constitutional provision for compulsory and free basic education, National Education Policy objectives, and the imperatives of transition to a middle-income country require that inclusion in its different dimensions is recognized as a basic principle of educational development and a guide to action**.** Affirmative action steps have been indicated in relation to current sub-sectorprogrammes in chapter 3. The discussion in this section is about according priority to inclusion and mitigating exclusion factors in the education sector as a whole and strengthening the sub-sector initiatives.

Major strides have been made in respect of inclusive education since compulsory primary education was introduced in 1990 and progress was made since then in extending the reach of primary and secondary education. Progressively, disparities and inequality based on gender, family economic status, geographical and ecological disadvantages, special needs of children, and ethnic-linguistic differences have been reduced. Major challenges, however, remain in reaching out with services to all those who are in various disadvantages, especially in respect of ensuring acceptable quality of services and offering equal opportunities to those in various forms of disadvantage. Given the transcendent importance of the principles of inclusion and equity in educational development, they merit consideration as an overall sectoral concern cutting across sub-sectors. Inclusion and exclusion in education are influenced by the broader context of social and economic inequality and exclusion in society which need to be considered in inclusion and equity strategies in education. Particularly, the strategy of providing a social safety net espoused by the government includes education-related components and there are opportunities for complementarities and maximizing benefits in this regard.

This discussion looks briefly at on-going inclusion and affirmative action policies and actions in the education system and considers the need for examining options for overall strategies with the aim of achieving better results in advancing the inclusion goals. Serving children with special needs and disabilities, overcoming persistent gender and ethno-linguistic barriers, and the efficacy of incentives including transfer in cash or kind are examined.

Children with special educational needs and the differently abled

The key element of the principle of inclusive education is that children with special educational needs (SEN), including those differently abled, are to be brought into the ambit of quality education services.

Differently abled children. Differently abled children, commonly described as children with disabilities, are amongst the most marginalized at all levels of education. Only a small fraction of children with moderate to mild disabilities are enrolled in mainstream schools. Inclusive education concepts and practice are at a nascent stage of development in the country. The prevalence of various forms of disability is generally underestimated and children remain deprived of necessary services and support. On the other hand, some children with special educational needs may need to go to special schools which are designed to cater to their specific needs.

Awareness and understanding of inclusive education are often limited, with education for children with disabilities such as sight and hearing impairment segregated in a small number of special schools under the Ministry of Social Welfare rather than as part of an integrated system under MoPME and MoE. This underscores the persistent overall "welfare approach" to children with disabilities. Children with disabilities make up a disproportionate number of out-of-school children at all levels.

A comprehensive database from national surveys has not provided the state of access to education for children with disabilities. BANBEIS data show that in 2018, about 46 thousand children with different types of disabilities were enrolled in government primary schools. Of these around 21 thousand were girls. Considering the overall enrolment in primary education, this is a very low number. Furthermore, no data on access to non-government schools or to secondary or tertiary level education institutions are currently recorded (Table 4-1).

Table 4-1: Children with disabilities enrolled in government primary schools, c.2018

Type of Disabilities	Boy	Girl	Total
Physical Handicap	8,940	6,614	15,554
Poor Eyesight	3,351	2,809	6,160
Short of Hearing	703	700	1,403
Problem in Speech	4,291	3,940	8,231
Intellectual/ Mental	6,640	5,787	12,427
Autistic	742	511	1,253
Others	508	441	949
Total	25,175	20,802	45,977

Source: Bangladesh Education Statistics 2018, BANBEIS

Reliable information on the number and proportion of students with disabilities remaining out of the education system is not available at present. Common causes of non-enrollment of students with disabilities have been found to be the school environment and teaching-learning not adaptive to children's needs, no or low scope of personal assistance, absence of accessible transportation, and inaccessible buildings and environment. Clearly, greater and systematic effort is needed to implement stated national policies, and to combat negative attitudes of the family, teachers and community (Choudhury et al. 2011).

Multi-lingual education

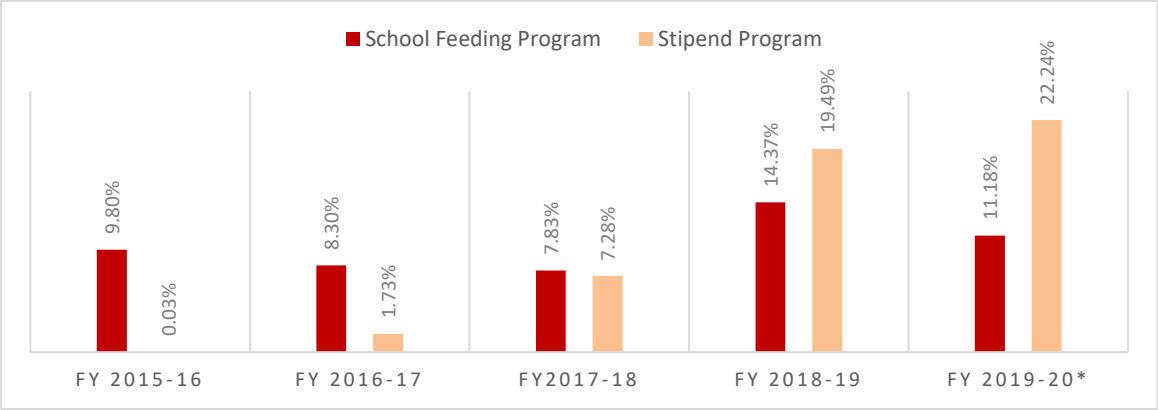
Acknowledging the importance of children having access to education in their respective mother tongues, the GoB has declared multi-lingual education (MLE) in the early grades of primary

education for children of ethnic minorities followed by transition to instruction in the national language as a key approach. In the beginning of the 2017 academic year, it distributed 52 thousand textbooks among 25 thousand children from indigenous communities in five languages. There is a National Steering Committee on Multilingual Education as well as an MLE Technical Committee. The technical committee is responsible for developing implementation guidelines, curriculum and materials and textbooks in five ethnic languages (Save the Children, 2018). National education related monitoring does not yet provide updated data for progress to this end. Keeping track of MLE interventions through monitoring as well as impact assessment is necessary. The children of ethnic minorities beyond the speakers of these five languages remain at present outside the scope of MLE. There are constraints in this respect regarding limited written materials and commonly accepted scripts in the ethnic languages. During the ESP period, expanding the scope of MLE and enhancing the outcomes will be given attention.

Incentives to schooling: stipends, school feeding and free books

As incentives to participation in schooling (primary and secondary), the government spends a large share of its education development budget for programmes such as school feeding and different kinds of stipends as well as free distribution of textbooks. These measures are regarded as part of the overall social safety spending of the government and have helped raise the education development indicators.

Figure 4.2: share (%) of education development budget going to school feeding and stipend programmes in fiscal years from 2015/16 to 2019/20



Source: Budget Documents, Ministry of Finance, GoB

Review of the education development budget, i.e. allocations in the Annual Development Programme (ADP) for education, shows that in recent years school feeding and stipends respectively have grown and claimed around 10 and 20 percent respectively of the total education sector ADP (Figure 4.2). In absolute amounts, the allocation for school feeding programmes have increased from BDT 17 billion in FY 2015-16 to over BDT 33 billion in FY 2019-20. During the same period, allocations for different stipend programmes have increased from BDT 0.05 billion to over BDT 66 billion.

Stipends. Stipends for the majority of primary school students, for almost all girls in secondary education and a proportion of boys, are, as noted, a significant share of the public education budget and is seen as a key element of achieving access, equity and inclusion in basic education. Support for primary school students from poor families began in 1993 with an innovative Food for Education (FFE) Programme, a monthly ration of rice or wheat to poor families if their

children attended primary school. The goals, following the launch of compulsory primary education, were to increase primary school enrollment, promote attendance, reduce dropout rates, and enhance the quality of education. An evaluation by the International Food Policy Research Institute (IFPRI) found that the programme largely fulfilled its objectives of increasing enrollment, promoting attendance, and reducing dropout, but there was no significant evidence of impact on quality of education. There were also problems about targeting the right beneficiaries and managing distribution of grain. Food for education (FFE) was replaced in 2002 by cash for education, a monthly stipend for over 5 million students from poor families in rural primary schools on condition that the students attend at least 85 percent of the classes and obtain 50 percent marks in the school examinations (Ahmed and del Ninno, 2002).The stipends were considered a success, though there were logistical problems about delivering the payments and some misappropriation. In June 2017, the government took a creative step to transfer the stipends, by now to nearly 13 million children, directly to the mobile banking accounts of nearly 10 million mothers of the children. This turned out to be a major improvement in the efficiency of programme implementation through digitization of the stipend payments, taking advantage of the spread of mobile phone based financial transaction in Bangladesh(Gelb et al, 2019).

The Female Stipend Program (FSP) was begun in 1982 as a pilot to help increase the enrolment and retention of girls in rural secondary schools. A tuition waiver for the girls was part of the programme with schools compensated by the government. The programme was considered successful enough to be expanded significantly in 1994. It was the way to achieve gender parity in enrolment and retention of girls, delaying their marriage and motherhood, and increasing their income-earning potential. An early evaluation found that FSP clearly had a positive impact on increasing enrolment and achieving gender parity in access, but not enough was known about its impact beyond access and gender parity for lack of rigorous impact assessment for the other objectives. The study also identified shortcomings in meeting the needs of the poorest girls – the stipend not quite compensating for multiple disadvantages of the poorest households (Raynor and Wesson, 2006).

Policy makers, parents and development partners found it worthwhile to continue and its scope was expanded to include a proportion of boys and urban girls. Thus, stipend has become a key public policy strategy for supporting education. With rising household incomes in Bangladesh and the need for larger resources in quality enhancing inputs including more and better teachers and better facilities, a pertinent policy question is whether the growth trajectory of incentive spending should be re-examined. For example, incentives provided could be calibrated and more specifically targeted to the disadvantaged. Near universal enrolment at the primary level has been reached and enrolment at the secondary level has grown significantly, thanks to the incentives offered. There are now competing demands for direct investment in quality-enhancing inputs in schools including the expansion of school meals. In this context, it is recognized that even to promote the inclusion priorities, the sustainability and cost-effectiveness of cash incentives for education participation, and optimal use of public resources in the longer term, merit re-consideration.

School Meals. The government acknowledges the school feeding programmes as essential for the development and growth of school going children and that they have a positive impact on enrolment rates, school attendance, and primary education completion rates (Rahman, 2019).The school feeding programmes started in Bangladesh in the early 2000s as an emergency response to children in poverty. Positive reaction to the initial programmes drew policy level

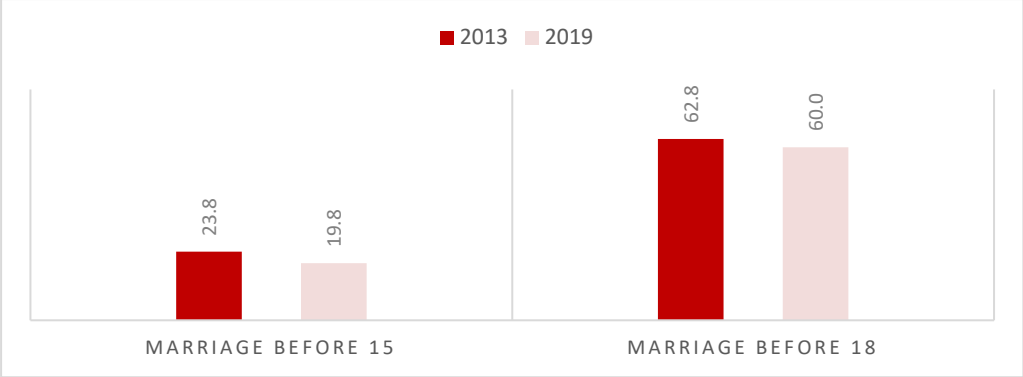
attention. Success of the initial programmes (piloted in selected sub-districts) and lessons learned from WFP implemented school feeding programmes over the years led the government to start its own school feeding programme in 2 upazilas in 2011 which covered over 56 thousand primary school students. By 2016, the programme grew to cover 2.53 million students across 72 upazilas (ibid). In April 2019, the Government announced a plan to expand a hot school meal programme to reach over 400 thousand children in 2,000 primary schools spread across 16 upazilas. This new programme is based on positive results from a pilot by WFP begun in 2013.The growth of the school feeding programmes with technical support from WFP and the recent decision to expand these further indicate that the efficacy of the school feeding interventions is well-established. A comprehensive programme for scaling up school feeding to cover gradually all primary schools was given government approval in June 2020.

Free Textbooks. Since 2010, Bangladesh Government has been distributing free books to school children at the beginning of the year. This is an ambitious project. In the past, it took up to six months for schools in remote areas to hand the books to students. In contrast, at the beginning of 2020, 42.5 million primary and secondary level students received free books at the very beginning of the learning year. The approximate cost of printing these books was BDT 10.5 billion for a year (Sarkar, 2019). With a decade of experience, the intervention has become more efficient and implementation flaws have been minimized over the years. In 2020, the government decided to offer further incentive to the school going children by providing an additional BDT 2,000 to each student to be used for notebooks and pencils or school dress along with the free books (UNB News, 2019).Looking ahead, the emerging context need to be kept in view regarding curricular reform, innovations in pedagogy, and ICT resources for learning content, including textbooks and supplementary materials on-line, Whether a huge and expensive operation of producing and distributing textbooks every year for millions of students need to continue indefinitely is a reasonable policy question. The alternatives of combining electronic and physical learning materials as the strategy for making these available to students deserve to be examined. A possibility is to make tablet computers, loaded up with text and supplementary materials, widely available to students.

Female Child Marriage

Ending child marriage is one of the long-standing challenges for Bangladesh and continues to be a crucial constraint in the fulfillment of girls' and women's rights. The government is committed to the idea that ending child marriage is strongly correlated with the participation of girl children in education. That is, the more girls that are engaged in education the less child marriage, and less child marriage means more girls staying in school.

Figure 4.3: Share (%) of girls married before 15 and before 18



Source: Multiple Indicator Cluster Survey 2012-2013 and 2019

MICS 2019 reveals that sixty percent of women get married before age 18, and one-fifth of them are married before the age of 15. At present, 3.8 million women aged 20-24 years, are married before age 18, with almost 0.7 million married before age 15 (MICS, 2019; Figure 4.4). Moreover, a teenage pregnancy rate of 31 per cent shows that nearly a third of all women become mothers by the time they are 18.

Various government initiatives encourage girls to stay in school, empower adolescent girls and boys through provision of life skills-based education, transfer cash to vulnerable families with adolescent girls, ensure protection of children at risk and raise awareness through community mobilization and behavior change activities. The government also enacted the new Child Marriage Restraint Act in 2017 and prepared a National Action Plan (NAP) to End Child Marriage. These efforts are aimed at reducing the number of child marriages. However, by international comparison, Bangladesh still has high prevalence rates of child marriage and early childbearing (UNICEF 2019).

Girl-friendly school facilities: water, sanitation and menstrual hygiene

The government is committed to ensuring safe environment and prevention of disease transmission by promoting personal hygiene practices in school. The water, sanitation and hygiene (WASH) situation at schools needs to be improved (Wateraid, 2015). Overall, according to a 2014 survey (LGD, 2014), 12 percent of the schools in the country did not have any kind of hand washing locations within the school compound, and 15 percent did not have hand washing locations with access to water. Twenty percent of these schools did not have a functioning water source and, strikingly, less than half of these schools had water available near or inside the toilet. Recent infrastructure projects have improved the situation, but there is significant scope for improvement in schools in the country in terms of access to WASH services.

Menstrual Hygiene Management (MHM) is another area where educational institutions have a lot of scope for improvement. The same baseline survey mentioned that the average age of first menstruation for girls in Bangladesh to be 12 years (the age when a girl is expected to be in the secondary school). The survey showed that:

- 25 percent of female students did not go to schools during menstruation.
- 33 percent of female students reported disruption in school performance due to menstruation.
- Only 10 percent of the female students used disposable pads, whereas 86 percent used old cloth.

Ensuring adequate MHM is still a challenge for most schools in the country. Relevant data in this respect are not recorded to track progress. Initiatives to improve MHM in schools and the mechanism to monitor the initiatives will be in place to protect the health and wellbeing of girls and improve their performance in school.

Objectives of inclusive education

- *Adopting and operationalizing principles* of access, participation and quality assurance in education to ensure that children are not subjected to disadvantage and inequity. The inclusion principles will prevent discrimination of children based on *group attributes*, such as, economic, cultural, ethnic and language characteristics and *individual attributes*, such as health, physical or intellectual characteristics of students.
- *Adopting and implementing an inclusive education approach* that brings children with special educational needs and those differently abled into the ambit of education services in regular schools or specialized institutions as appropriate.
- *Taking affirmative action,* through targeted resources and extra efforts, to combat existing education exclusion and inequities related to geographical inaccessibility, ecological disadvantage, economic status, and other group and individual characteristics that result in subjecting children to significant disparity and .deprivation from education; the affirmative action and inclusive education priorities need to be part of decentralized planning model for upazilas and districts and included as a component in the model.

Targets for inclusive education

- *Examination* conducted of efficacy, comparative benefits, and longer term sustainability of incentives and equity measures such as stipends, school meal and free textbooks; appropriate strategies for inclusion and equity measures *developed* in the light of SDG4 2030 objectives and steps to apply the strategies to school education with a medium term and longer term perspective.
- *Assessment* done of current approaches and practices regarding gender equality and gender justice in the education system; necessary steps and implementation measures *identified* for applying comprehensive gender justice and equality actions in education, including prevention of child marriage and protection of girls' from abuse and violence. Attention is needed to going beyond parity in enrollment to include completion of stages of education, learning outcomes, fighting gender stereotyping, inculcating gender justice norms in school, women's participation in education across disciplines including STEM, and removing gender bias in pursuing professional and career choices.
- *Review* of current plans, objectives and practices in making school facilities effectively accessible to all students including girls and those with disabilities with reference to physical access, and adequate provisions for classrooms, toilets and wash-blocks.
- *Improved data gathering, recording and estimate* of numbers and proportions of exclusion from education of children with major types of disabilities by levels of education and by gender. *Improved data gathering, recording and estimate* of numbers and proportions of exclusion from education of children disadvantaged by geography, economic status, and ethnic status by levels of education.
- *Improved data gathering, recording and estimate* of numbers and proportions of institutions by level of education with adequate access and provision of facilities for differently abled children.

- *Projection* of numbers of stipend recipients and costs by levels of education and assumptions regarding options.
- *Projection* of need for specialized provisions for children with disabilities who may not be served adequately by mainstream institutions by types of disability
- *Making inclusive education and affirmative action* part of the upazila and district education decentralization model development (See chapter 3)

The implementation approach and arrangements, based on a technical assistance mode, are discussed in chapter 6.

4.5 Assessment of Student Learning and System Performance

Current status and challenges

Two major inter-connected aspects of assessment of learning are *measuring learning outcomes achieved by students* and *assessing how the system performs to create the conditions for students to achieve the learning outcomes.* Summative public examinations in school education are commonly considered the main means of assessing student learning. However, a right balance is required between formative and summative assessment for ensuring assessment of student learning focusing on quality rather than grades. The performance of the system – functioning of schools, teachers doing their job, adequate funding and their use, setting broader system goals of quality, equity and inclusion, and pursuing these goals efficiently and effectively – are the system elements that create the enabling conditions for students to realize the learning outcomes. Both elements need attention as a system priority in addition to specific steps considered in relation to school education and non-formal education sub-sectors

The objectives and targets for assessment of student performance and system performance are identified in this section, recognizing their interactivity. The SDG4 strategic framework for Bangladesh, the framework for SDG4 indicators and student learning assessment practices and mechanisms have been looked at to articulate the objectives and targets in this chapter.

Student learning assessment

The learning achievement of students, the most important measure of quality, is gauged by examination results of students and by surveys of learning assessment conducted independently of examinations. As noted in chapter 3, the Primary Education Completion Examination, held at the national level throughout the country, was introduced in 2010 and is conducted at the end of grade 5. Until then class five examinations were held by each school. A National Student Assessment of competency in Bangla and mathematics has been conducted on a nationwide sample every two years since 2011. PECE and NSA as outcome measures provide useful data and raise various issues regarding quality improvement of the system.

Students and their parents regard the PECE as a high-stake examination because admission to secondary school of choice and awarding of scholarships are dependent on the results. Examinations are held on all the six main subjects taught in primary school and the test items closely reflect the content in the textbooks for the respective subjects.

The shift to the high stake national public examination at the end of grade 5 and of the Junior Secondary Certificate examination at the end of grade 8, introduced in 2011, has generated some anxiety and pressure on students and parents, increased reliance on private tutoring, memorizing

the content of exam guides and notebooks and incentives to corruption and dishonesty. There is also the opportunity cost of distracting teachers and school administrators from teaching. The need for assessing of students' learning achievement at key stages of their school career is not in dispute. It has to be ensured that the assessment method and practice serve its purpose. In line with assessment of basic competencies in many countries, the NSA focuses onfirst language and mathematics performance at grade levels 3 and 5. In contrast to the PECE in which over 95 percent of students passed, the NSA has shown that the majority of children do not acquire the required grade level competencies in Bangla and mathematics in grade 3 and 5. The 2015 NSA report states that, "There are important differences between what was measured on the NSA 2015 as compared to the PECE."

Results of student learning assessment comparable to the NSA at the primary level are not available at the secondary level. However, the Learning Assessment of Secondary Institutions (LASI) conducted in 2015 with a sample of grade six students (the first year of the secondary stage) indicates a poor baseline of competency in Bangla and mathematics of secondary students. There are no standardized learning assessment results currently available for grades 10 and 12 students which could be compared with the SSC and HSC results. The National Assessment of Secondary Students (NASS) was carried out in 2019 with a nationally representative sample of grade 8 and grade 10 students in English, Bangla and mathematics but the results are not yet available.

Building upon the experience gained from conducting the NSA, LASI and NASS rounds, two strategies are under consideration, namely a) adopting a standardized periodic assessment of basic competencies acquired by students at key stages, such as grade 3, 5 and 8,; and b) participating in an appropriate way in the international assessments such as the Program for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) in the future. In the meantime, NSA and LASI might be adapted to the international assessment methodology and test items in order eventually to better judge where Bangladesh stood vis-a-vis its own learning objectives and other countries. More important, however, is to analyze the assessment results and use these to identify the weaknesses in the system and take remedial measures.

National Indicator Framework (NIF) and Better Monitoring

The National Indicator Framework (NIF) on Education for Bangladesh has been developed by the National Data Technical Committee under the Capacity Development Education (CapED) Programme with support from UNESCO and UIS.

The NIF document is an expression of the government's felt need for a set of indicators based on country priorities and national plans (that will include the globally accepted indicators), and may be used for monitoring and tracking progress towards attainment of the education related objectives of the country. The core objectives of the NIF are:

- Having a comprehensive set of indicators that would help in monitoring national education policy priorities as well as caters the global data demand.
- Providing guidance regarding data requirements and data generating in a holistic manner that creates an enabling environment for effective monitoring and evaluation.
- Contributing towards development of a National Strategy for the Development of Education Statistics and Action Plan (NSDES&AP)

The NIF has set national indicators incorporating in them the global indicators, thematic indicators and some additional indicators against each of the 10 targets under SDG4 goal. A total of 269 targets have been set in the framework documents with the highest number of goals against target 10 under SDG4, i.e. 'by 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing states'. A total of 79 indicators are chosen against this target. The smallest number (4 indicators) are set against target 09 under SDG4 (National Indicator Framework on Education for Bangladesh 2019). Prioritizing data collection and analysis in a situation of limited capacity and in line with the national objectives and targets remain a general concern.

The NIF aims at gathering data on national, global and thematic indicators of SDG4, there are deficiencies in collecting, recording, and documenting relevant essential data to meet demands for effective monitoring and evaluation of the education sub-sectors. The General Economics Division of the Planning Commission has compiled and published available data in 2018 and 2020 on progress regarding SDG indicators including some for SDG4 (GED, 2020)

Consistently collecting, collating and analyzing data in accordance with NIF are challenging tasks which require policy attention and allocation of resources. It is expected that a National Strategy for Development of Education Statistics and Action Plan (NSDES&AP) will provide necessary guidelines to this end.

Objectives of assessment of student learning and system performance

- *Developing and strengthening* student learning assessment policy and practices in school education, both formative and summative, with special reference to the value and efficacy of current practices of four public examinations in the course of school education, school-based assessment methods and activities, and complementarity and interaction between them. Attention is needed to valid measurement of student achievement in core curriculum-defined competencies; promoting education system objectives regarding students' social, emotional and moral development; and effects on teaching-learning practices in school. Attention is also needed on appropriate criteria, methods, and mechanisms of effective student assessment at different stages of school education, capacity building needs for this purpose, and necessary steps for a transition from the current practices to a more effective approach and mechanism for formative and summative student assessment, emphasizing assessment *for* better learning.
- *Institutionalizing* and building capacity for periodic independent assessment of student core competencies based on examining current practices, methods, capacity, and outcomes for students as part of system performance assessment (such as NSA and NASS). Special attention should be given to comparison and complementarity of independent student assessment and public examination results, influence on education policy and pedagogy of these results and institutional capacity building for independent assessment. The value and feasibility of participation in international student assessment initiatives, such as PISA, also should be investigated and options considered.
- *Supporting* the work and progress regarding the National Indicator Framework (NIF) on Education for Bangladesh and steps underway towards use of proposed set of indicators in tracking and monitoring implementation of national education policy objectives. Attention is needed for providing guidance regarding data requirements and data

generating and contributing towards development of a National Strategy for the Development of Education Statistics and Action Plan (NSDES&AP) as envisaged in NIF.

- *Strengthening and supporting* measures taken and overcoming constraints in the use of the SDG4 Strategic Framework to enhance coherence and stronger coordination in GoB's ongoing efforts to implement education policies and plans in a holistic and integrated manner. This is in line with the SDG4 principles of lifelong learning and achievement of sustainable development. Attention should be given to accelerating and strengthening appropriate initiatives to influence educational development, especially the education content of the 8th Five Year Plan and various sub-sector plans**.**

Targets for assessment of student learning and system performance

- Based on the study of current practices and methods of pubic examinations and school-based assessment, public discourse and stakeholders' views, *development* ofa phased plan for transformative change in student learning assessment with special reference to a balance between summative and formative assessment, measurement of core curriculum-defined competencies; promoting students' social, emotional and moral development; and effects on teaching-learning practices in school.
    - Attention should be given to appropriate criteria, methods, and mechanisms of effective student assessment at different stages of school education, capacity building needs for this purpose, and necessary steps for a transition from current practices to a more effective approach and mechanism for student learning assessment.
- Based on the study of current practices, methods, capacity, and outcomes of periodic sample assessment of core competencies of students (NSA and NASS), *development of a plan* for institutionalizing periodic independent sample-based primary and secondary school level student performance in core curriculum-defined competencies and a feasible approach to participation in international assessment of student performance.
    - Special attention will be given to supporting comparison and complementarity of independent student assessment and public examination results, influence on education policy and pedagogy of assessment results, and institutional capacity building for independent assessment.
- Based on an examination of the work and progress regarding the National Indicator Framework (NIF) on Education for Bangladesh, *proposal* prepared for necessary measures for strengthening the role and capacity of the Bangladesh National Bureau of Educational Information and Statistics (BANBEIS) as the institutional base for reliable and timely educational data; and accelerating NIF implementation in tracking and monitoring educational progress, with reference to monitoring and tracking education progress.
    - Guidance has to be provided regarding data requirements and data generating and contributing towards development of a National Strategy for the Development of Education Statistics and Action Plan (NSDES&AP) as envisaged in NIF.
- Based on the examination of measures taken and constraints faced in the use of the SDG4 Strategic Framework to enhance coherence and stronger coordination in GoB's ongoing efforts to implement education policies and plans, *proposal* prepared for accelerating appropriate initiatives and ways of overcoming obstacles to use of the SDG4 Strategic

Framework for influencing national educational development, especially the education content of the 8th Five-Year Plan and various sub-sector plans.

Key items of the outputs and targets for the five cross-cutting areas are incorporated in the Results Framework and are reflected in the Key Performance Indicators of ESP as shown in chapter 8.

4.6 Capacity-building Strategy

Capacity-building in the system, institutions and among the people who must make the system and the institutions function is crucial for achieving the intended results. The cross-sector issues discussed above as well as the sub-sectoral areas presented in the previous chapter point to various aspects of capacity deficits which need to be addressed, overcome and made integral elements of the respective outputs, targets and activities.

Capacity-building of personnel, especially of teachers and head teachers, has to be purposefully linked to what can happen in classrooms and what actually happens, and how the conditions and learning environment can be made supportive of the changes in practices envisaged. The required changes in practice and working environment have also to be supported and encouraged from the supervisory and policy-making level. Lessons may be learned from a creative initiative called "*Shikhbe Protiti Shishu*" (Each Child Learns), which aimed at improved foundational skills of early grade children in reading and arithmetic and was considered a flagship activity under PEDP3. Retrospective evaluation shows that, despite a promising start, inflexibility in classroom learning time for language and mathematics and absence of follow-up support led to petering away of the initiative. Such initiatives need to be sustained by following a coordinated and integrated approach to capacity development, integrally linked to planned activities and expected results.

The present chapter on cross-sectoral concerns is to a large extent about capacity building of the system and of the involved people. The first item in this chapter is entirely about re-imagining the education workforce of the future and preparing them for their role and functions. A comprehensive and integrated approach is envisaged by also providing for redesigning continuous professional development of teachers, personnel management, incentives and performance standards of personnel which are mutually supportive of improved capacity and better performance.

The other cross-sectoral areas include components which contribute to and support capacity development. These include institutionalization of student assessment balancing formative and summative modes, building up and using EMIS at different levels, expanding ICT-enabled learning with an emphasis on the blended approach and enhancing skills for this purpose, wide use of the teachers' portal, and TA activities as an opportunity for system and personnel capacity building. The overall and annual work plan for the respective areas will be the means of giving due attention to the essential skill development activities linked to the results envisaged. (See chapter6.)

In respect of the sector-wide governance and management change, capacity-building of the system and people is envisaged through piloting and trial of the model of district and upazila level decentralization of education planning, implementation, resource management and monitoring as well as establishing resource teams at district and upazila levels to provide professional support and supervision to schools. Involvement in curriculum and learning content development and orientation for a wide range of personnel in curriculum implementation will be

an opportunity for promoting learner-centred pedagogy. The sub-sectoral programmes described in chapter 3 have included specific training and capacity building activities as integral elements in the respective areas.

The basic strategy followed in the ESP for developing the competency of personnel and improving system capacity is to provide for skills and capacity enhancement as organic elements in the respective areas of activities. The implicit theory of change undergirding the ESP, not discussed or presented explicitly, is the premise that the groundwork for transformative change in the education system can be laid through capacity building of the system and institutions from classrooms and schools to district and central entities and enhancing capabilities of people from the classroom teachers, headmasters, district supervisors and administrators and higher level decision-makers – guided by the objectives and results to be achieved. Unleashing the skills and purposefulness of people and making the organizations and institutions function as they should are the drivers of change.

5. GOVERNANCE, SYSTEM MANAGEMENT AND PLANNING

Effective governance is essential to achieve the outcomes envisaged in the Education Sector Plan. Different aspects of the critical area of governance, system management and planning are discussed in relevant parts of this document – chapters 2, 3 and 4 as well as this chapter --placing the issues in appropriate contexts.

The policy and planning matrix, based on a sector analysis preparatory to the sector plan, has indicated the overarching goal of the sector plan. It also presented three key sub-goals or pillars of education development in the country and a list of major outcomes to be achieved by the sector plan. One of the three pillars is about governance and management of the education system. The two others are access and equity and quality and relevance. The two other sub-goals are about what should be achieved by the education system, or its objectives. The governance and management sub-goal relates to the ways and means of realizing those objectives.

The overall education sector outcomes concerned with the governance and management pillar are mentioned in the policy matrix (see chapter 2) of the plan. These outcomes are about:

- Improved educational governance and progressive decentralization of administrative and financial authority, planning and management functions
- Development of sector wide and sub-sector planning and implementation and effective coordination among the sub-sectors
- Increased budget allocations with rationale and criteria applied for achieving quality, equity, and inclusion objectives
- Establishing the appropriate mechanism and process for supporting holistically the realization of the major policy objectives of the education system
- Strengthening capacity, capability, technical skills and leadership skills in the management structure and among personnel at different levels
- Enhancing accountability and transparency and elimination of corruption and political interference in education governance and management

These broad sector-wide outcomes spell out the scope and focus of governance and management functions in the education plan, which are considered critical in the present state of development of the education system and in looking ahead towards the future. They emphasize the move towards decentralization and devolution of tasks to bring decision-making closer to beneficiaries and governance operating with greater accountability, coordination and a holistic view of the system.

Chapter 3 presented the sub-sectoral targets and activities along with related governance and management components. Chapter 4 presented the education sector (across–sector) reform objectives and plans and indicated the need to consider relevant sector-wide governance and management issues. Specific implementation arrangements for ESP are discussed later in chapter 6. It should be noted that education finance, budgets and costs of the plan are presented in chapter 7. The present chapter considers resource issues in terms of ensuring adequacy of resources and creating the conditions for their effective use.

To sum up, the present chapter concentrates on systemic issues in current governance and management approaches and practices and the need for change in behavior and methods which are necessary to support the transformative reforms envisaged in ESP. This chapter, therefore, goes beyond the operational governance and management requirements related to sub-sector

planning and across sector objectives (described in chapters 3 and 4). It concerns the broaderchallenges in the governance and management system and the need for change.

The governance and management issues related to sub-sector implementation may be described as operational issues of educational planning and management. The measures related to the across-sector transformative change may be called structural issues of educational development, as discussed further below.

Special attention is given to school education, which is by far the largest part of the education system in respect of students, institutions, personnel and financial investments. It draws on the issues highlighted in the ESA. It looks at the National Education Policy 2010 diagnostics and recommendations and the governance and management provisions in the current sub-sector plans for primary education and secondary education. It proposes the system-relevant outputs and targets for governance and management taking the proposed broad governance and management outcomes mentioned above as the starting point.

5.1 EDUCATION GOVERNANCE CHALLENGES

The ESA cited the EFA 2015 National Review of Bangladesh in pointing at the long-standing education governance challenge:

> *The difficulties in consensus building on governance issues are rooted in the socio-economic divisions, power structure and political dynamics, which have resulted in the co-existence of three parallel streams of education - the vernacular general education, the religion-based madrasahs, and the English medium schools.* (EFA National Review, 2015).

These constraints still prevail and impede achieving national objectives and the Education 2030/SDG4 agenda.

Governance challenges and implementable action: The ESA notes that it is necessary to assess country readiness for the translation of SDG4 and other education commitments into appropriate actions in the national education system. This includes assessing the policy, planning, monitoring, and management contexts of the national education system in order to identify the gaps between the expression of commitments and ambitions, on the one hand, and actions backed up by resources, on the other (UNESCO, 2015). This is clearly a continuing process that must be supported at the policy-making level. The present exercise of ESA and ESP development is aimed at contributing to this effort.

Supporting coordinated and holistic implementation of educational development. Sub-sectoral and cross-sectoral discussion has shown the need for mutual alignment of current and envisaged national objectives and plans with education 2030/SDG4 agenda. The strategy will be supported by national policy and adequate resources with the involvement of the Ministries of Planning and Finance and the Prime Minister's Office. Indeed, a high-level coordination mechanism has been established at the Prime Minister's Office with operational support from the General Economics Division of the Planning Commission.

The 8thFYP comes at a critical juncture for shaping development priorities and strategies to enable the country to move into the rank of upper middle-income countries and adapt national goals to the SDG 2030 agenda and vice versa.

It is recognized that strengthened national level efforts should be linked with and be responsive to the efforts at sub-national and local levels. A multi-sectoral approach is seen as necessary with active involvement of multiple ministries, especially the Local Government Ministry to realize the strategy of responsive education governance (CAMPE-CPD, 2016).

5.2 EDUCATION POLICY 2010 VISION OF GOVERNANCE AND MANAGEMENT

The preface of the Education Policy 2010 states, "Education policy is a dynamic matter… The practical experience of its implementation and the ongoing progress in knowledge, science and technology and their application will continue to enrich the education policy." With a decade's hindsight, the need is recognized to re-examine how the policy may be "enriched," especially, in respect of the education governance and management elements of the policy (MoE, 2010). (See Annex5.1 for relevant details.)

Accountability, dynamism, transparency and freedom from corruption in education governance and management find repeated mention in the education policy. So do decentralization, devolution, greater authority and responsibility at sub-national and local levels and at the level of the institutions.

In order to create a mechanism for promoting quality in teaching and learning, the policy provided for the establishment of an Office of Chief Inspector, in line with UK's independent Office of Standards in Education (Ofsted). It was anticipated that such an office might supervise and assess performance of institutions at the secondary level and present annual reports to the Parliament and to the public. The existing Directorate of Inspection and Audit in the Ministry of Education then could be mostly concerned with financial inspection. The structure and value of such a body and how it might work can be revisited.

The policy also advocated for a responsible body in the form of a permanent and autonomous statutory national commission that could oversee and monitor progress, identify barriers and points of inertia, and champion change as a national agenda. The need and efficacy of such an oversight mechanism is required to be reviewed.

The 2010 Education Policy recommendation of extending the scope of primary education to grade 8 has not been implemented, due to various practical difficulties, though the transition from grade five to grade six at the junior secondary level has been high. . With SDG4 target of universal secondary education, which is an accepted benchmark for middle income countries, and the need for planning and managing extended universal education in a holistic and integrated manner, the school education oversight merits rethinking, as discussed below.

The sub-sector programmes of primary and secondary education were initiated in the last two decades with objectives of quality, access and inclusion. Effective governance and the importance of decentralized, accountable and result-focused governance and management were mentioned in the respective documents. A look at what has been provided as implementable objectives and indicators will show the nature of the targets for change set and their congruence with the changes anticipated in Education Policy 2010.

5.3 GOVERNANCE AND MANAGEMENT IN PEDP4 AND SEDP

Fourth Primary Education Development Programme (PEDP4)

The three major components of(i) quality, (ii) access and participation and (iii) management, governance and management in PEDP4 include 21 sub-components, five of which concern "Management, Governance and Finance." The sub-components on management and governance mostly relate to administrative capacity and arrangements of implementing PEDP including the functioning of the Project Support Team at the central level. The provision directly concerned with decentralizing management and planning is the one about School Level Improvement Plans (SLIP) and Upazila Primary Education Plans (UPEP) – small grants to schools and some training activities for upazila level planning. Similar activities were included in PEDP3 which made modest progress in this area during its duration of six years.

An expenditure tracking study showed that on average BDT 40,000 per school was provided as SLIP grant under PEDP3. The practice was for schools to find a way to raise funds and spend the money and get reimbursed, usually in two installments. The UPEP grants were in the amount of BDT 10,000 for an upazila for training regarding preparation of UPEP. The small amount was insufficient for actual preparation or implementation of the UPEP(Asaduzzaman and Bhatta, 2017). SLIP and UPEP did not sufficiently reflect the vision of the transformative change in education governance foreseen in Education Policy 2010. (See Annex 5.2 for further discussion about governance and management in PEDP4.)

Secondary Education Development Program (SEDP)

The Secondary Education Development Program (SEDP) for the period 2018-2022 is intended to support general education in grades 6-12, serving more than 12 million students and 357,000 teachers in 20,300 general schools, 9,400 madrasahs, and 1,190 general schools with SSC vocational stream. One of the three key results envisaged for the programme is "increased efficiency through effective, decentralised management; systematic programme monitoring; and timely resolution of key policy issues" (MoE, 2017). (See Annex 5.3 for information about governance and management in SEDP.)

Result Area 3 in SEDP for strengthened governance, management, and planning comprises five sub-results, namely a. Strengthened decentralized education management, b. Strengthened education management information system and monitoring and evaluation, c. Improved teacher management and accountability, d. Improved school management and accountability, e. Strengthened sector planning, management, and coordination; and f. Strengthened Monitoring & Evaluation System.

The sub-components, if effectively implemented and necessary capacities are built, would be helpful steps towards establishing an accountable and efficient system management anticipated in the National Education Policy 2010.

The Education Policy vision for education governance logically implies a move towards establishing district level capacity such as a district education authority with greater responsibility for general education and the school system management than the existing pattern and practices allow. A professionally competent and independent inspectorate for promoting and maintaining education standards in the system covering all school education could be an important element in the governance system, as anticipated in the NEP.

In light of the decentralization and management reform vision of the NEP, the steps proposed in SEDP could be regarded as a transitional phase leading to further decentralization with district and upazila-based planning, management and implementation. This step may lead to decentralized budget management and monitoring, with progressively greater authority and responsibility devolved to individual institutions.

5.4 Education Governance and Management in SDG4 Strategic Framework

The ESA cited the analysis and key points from the SDG4 Strategic Framework for Bangladesh. Annex VI, Table 1 in the ESA presents the "foundational principles and strategic approaches" which include the principles and indicated actions regarding governance and management, effective coordination, effective financing and effective monitoring and follow-up.

The Strategic Framework notes that the government recognizes it has the primary responsibility to deliver on the right to education and that it is accountable for fulfilling SDG4. Building on the partnership with civil society and development partners established through the development of the Strategic Framework, the two ministries would continue to engage with all relevant actors.

As noted, the government set up a comprehensive inter-governmental coordination mechanism for the SDG 2030 agenda led by the Prime Minister's Office. The responsibilities of the various ministries and agencies were identified to achieve the SDGs, including lead ministries and supporting ministries for each of the SDG targets. MoE and MoPME are co-leads for SDG4.

The Strategic Framework notes the global benchmarks for education financing -- 0.7% of GNI of OECD countries as ODA, 4% to 6% of GDP for education and/or between 15% and 20% of public expenditure. The government recognises the crucial role of education financing and strives to increase public expenditure to education. The need for strengthening of the capacity for efficiency and effectiveness of spending and effective use of the education budget is emphasized. The need for a conducive environment for NGOs and CSOs to finance and implement mutually complementary education activities and projects is noted.

An essential element of the SDG4 strategy is strengthening capacities in sector-wide policy and planning as well as data collection and analytical capacities. A National Strategy for the Development of Education Statistics (NSDES) is being developed based on education related data and data capacity gaps with BANBEIS as the base. Establishing robust monitoring, evaluation and reporting systems will be a priority for tracking progress in meeting the SDG4 targets and for adjusting plans based on evidence from the monitoring and evaluation system.

The aspirational objectives and actions indicated in the SDG4 Strategic Framework are a recognition of the critical role of governance, management, planning and monitoring. The government is committed to making real progress and to achieving results by pursuing the objectives.

5.5 Structural and Operational Issues of Education Sector Governance

The difficulties of acting on and implementing governance and management reforms in line with the National Education Policy recommendations have been illustrated by the absence of a sub-sector plan approach in all sub-sectors. The issues need to be adequately analyzed, definedand addressed in a systematic way. Indeed, the overall sector overview for education through the present ESP exercise is an opportunity to look critically at the structural issues of governance and management of the sector.

Major structural issues are manifested in certain unique characteristics of the education system in Bangladesh. Four of these special characteristics merit mention.

First, unlike most other countries, the jurisdiction for pre-tertiary school education, pre-school to grade 12, is divided between two ministries of education. The entire school level education demands holistic and integrated management Moreover, as Bangladesh is committed to work towards fulfilling this SDG4 target which stipulates universal secondary education the domain of compulsory education needs to be extended up to secondary level education from primary level education..

Second, the Bangladesh education system with over 40 million students, over 200 thousand institutions and over one million teachers is run with a highly centralized management structure. Meaningful decentralization is required to make the education services flexible and responsive to local conditions.

Third, budget allocation is low in terms of share of GDP and the national budget compared to other developing countries. Although, there has been a trend of increased allocation, the proportionate share of budget for education needs to increase to fulfill the education goals in quality and access.

Fourth, three parallel streams of education have evolved and flourished as noted above – the mainstream vernacular stream, the privately supported English medium schools and the partially state-supported faith-based madrasahs. Unifying the parallel streams in respect of core learning goals and equitable opportunities for all have become a growing concern of the policy makers.

The document titled “Bangladesh Sector Action Plan for Education and Technology (SAPET)”, prepared as a complement to the Seventh FYP (2016-20) took a broad look at sector planning and related management concerns. It articulated goals and objectives for education and skills development in the light of Education Policy, aspirations for an upper middle-income country and the global Education 2030 agenda. SAPET identified what it called structural and operational constraints for education and skills development and suggested what could be done to overcome these obstacles(Policy Research Institute and UNDP, 2017). The ESA also referred to the structural and operational issues and drew attention to the importance of addressing these in the ESP.

The ESA noted that the structural weaknesses would require a sustained and longer-term effort. More immediate steps need to be taken on operational issues, but still designed within a framework of structural reforms.

STRUCTURAL ISSUES

Major structural issues have come to the fore from the national education discourse as well as from recent studies and policy advocacy of education researchers and stakeholders. These include:

- *Resource adequacy***.** Allocation of public resources for education following international standards with criteria and benchmarks must be considered.
- *Decentralized and effective governance***.** With a highly centralized governance and management structure for the large educational system of the country, decentralization with accountability in educational management at all level needs priority attention.
- *New thinking about teachers and the education workforce***.** Insufficient numbers of teachers for meeting the required quality standards and the constraints of the system to attract and retain capable people in the teaching profession call for new out-of-box thinking about teachers and the education workforce. Schools also need other personnel besides classroom teachers, for functions such as counseling, IT support, co-curricular organizing, school health and physical and sports instruction.
- *Effective skills development***.** Rather than supply-driven skills, development of demand-driven skills with quality, relevance and attention to apprenticeships must be considered for TVET and overall skill development scheme.
- *Quality in tertiary education including degree colleges***.** Considering the degree colleges are the main supply chain for primary and secondary school teachers, the quality of facilities, teaching and learning in degree colleges under the National University must be ensured to avoid a shortage of competent workforce.
- *Better managed school education***.** For ensuring curriculum continuity, student assessment, teacher preparation and supervision, and developing, guiding and implementing a holistic quality-with-equity strategy in the national school education system, a coordinated and integrated policy direction is required. On the other hand, managing the large school education system in term of number of students, schools, teachers and workforce for a single ministry is practically problematic. In this context, two ministries, responsible for managing school education, need to find out an effective mechanism for better coordination and interaction.
- *Partnership building***.** Government, non-state actors, civil society and the private sector need to work together for optimal policy development, governance, resource mobilization and assessment of progress. Greater consultation of stakeholders at all levels has to be encouraged.

The context and manifestation of the structural issues enumerated have been noted earlier in the discussion of sub-sectoral and cross-sector issues. It is evident that the structural issues identified have major governance and management elements, which call for both early and longer-term measures.

Solutions to the long-standing structural constraints cannot be decided and indicated while formulating the ESP. The realistic aim is to identify and recognize the issues and direct attention to these at the policy and decision-making level so that a beginning is made for a systematic effort towards workable resolutions. This has been the consideration in identifying outputs and targets in ESP regarding education system governance and management

OPERATIONAL ISSUES

The operational issues arise from the long-standing structural issues and the consequent deficiencies in the governance, management and decision-making process in the education system.

Several of the issues noted in the sub-sectoral discussions above and gleaned from recent research reports as well as media discussion of educational issues are mentioned below:

- *Student learning assessment*. Designing of early public examinations for ensuring effectiveness of learning outcomes has been frequently discussed.
- *Curriculum reform*. Seamless and competency-based curricula through grades have been identified as an area for curriculum review and reform.
- *Disadvantaged groups*. Geographical and ethnic-based access and inadequate opportunities for children with disabilities need greater attention.
- *School facilities*. School buildings, premises and playgrounds should be built and maintained as a symbol of commitment to education and community pride.
- *Quality control in private and public universities*. Proliferation of private and public universities without essential quality control defeats its very purpose.
- *Education policy implementation mechanism.* The Education Policy 2010 implementation has to be revisited looking at priorities in the present context.
- *Digital technology*. Better and inclusive use of digital technology for teacher upgrading, enriching student learning resources, efficient management information systems, and ensuring wide and affordable access to the internet for all educational institutions are the steppingstones into the 21st century.
- *School meals*. The policy adopted on school meals for all children, especially at pre-primary and primary level, needs to be implemented effectively without burdening teaching personnel and distracting them from classroom instruction.
- *Accountability and transparency*. Strengthening accountability and ensuring transparency are the integral parts for effective implementation of governance reform.

The context and causes of the operational issues listed above have been indicated earlier in chapters 3 and 4 and specific activities have been included in the sub-sector plans. Broader supportive measures for governance and management reform are proposed below.

THE PLANNING PROCESS

In order to guide educational development to serve national development aspirations, the planning function must play its role and be strengthened in appropriate ways. The ESP preparation has involved a team of education experts with insight and interest in education planning and programme development. The team has engaged in extensive consultation with concerned government personnel of the two education ministries and other stakeholders including teachers, academics, and civil society. The ESP coincides with the time period of the 8th Plan. The essential elements of the five-year plan document have been considered, including the priorities in resource allocation for the education sector, with inputs from the respective agencies of the two ministries. It is intended that the ESP will be used as the basic content of the education part of the 8thFive Year Plan (2021-25). There will be an opportunity to address the structural and operational issues in governance and management of education in formulating the education part of the 8th Plan.

Responsible ministries and agencies have prepared various sub-sector programmes which are being implemented currently. These will be examined and adapted as appropriate to mitigate and overcome the existing structural and operational issues of governance and management .At the same time, a sector-wide perspective of change is adopted to create the enabling conditions for change within sub-sectors. The broad outcomes, specific outputs and related targets in respect of governance and management of the education sector are proposed from this perspective.

5.6 Outputs and Targets for Education Governance, Management and Planning

The proposed outcomes were developed as part of a policy planning matrix and were presented at the beginning of this chapter. The outputs or objectives related to the outcomes are proposed below, based on the Policy Matrix Elaboration in Annex 2.1.

Outcome 1. Improved educational governance and decentralization, with administrative and financial authority and planning and management functions devolved to district, upazila and progressively to institution level

Outputs

- Across sub-sectors, a governance improvement and decentralization-focused *model* master plan developed, with division, district, upazila and institution level devolution; components on decentralization, capacity building, education workforce development/management, resource adequacy/management, and effective monitoring given attention

Targets

- Planning and indicating mechanisms for adapting the model master plan for governance and management programme components with objectives and targets for a. pre-primary/primary; b. secondary, c. higher secondary; d. madrasah; e. TVET; f. tertiary; g. ICT-based learning facilities across sectors; and g. non-formal opportunities complementing formal education;
- Developing plans for strengthening BANBEIS as the independent repository of education data and enhancing capacities for data collection and analysis on sector-wide planning whilst at the same time strengthening sub-sector-wise data collection, management and analysis for the planning and reporting purposes of the concerned sub-sectors, accelerating steps for establishing robust monitoring, evaluation and reporting systems, applying the National Strategy for the Development of Education Statistics (NSDES)

Outcome 2. Development of sector wide and sub-sector planning and implementation and strengthening monitoring and evaluation capacity, building on work underway in sub-sectors, and enhancing the effective coordination among the sub-sectors

Outputs

- Review and analysis of on-going sector-wide approach for sub-sectors (PEDP and SEDP) in the light of the overall ESP outcomes, identification of issues of coordination, complementarity, and mutual support, and indication of approaches and steps for making any adjustments and modification, if warranted

Targets

- Examining and analysis of current thinking, stakeholders' views, and efficacy of adopting the sector-wide approach and recommendations on appropriate steps for way forward, especially in reference to TVET, NFE, tertiary education and madrasah education
- Strengthening data capacities for monitoring and reporting

Outcome 3. Increased education resources and public sector budget allocations with rationale and criteria applied for quality, equity, inclusion, improved capacity for effective resource utilization.

Outputs

- Examining options and scenarios for financing and resource mobilization approaches including public and non-public resources to serve adequately the equity, quality and inclusion principles

Targets

- Recommending and promoting strategies and necessary steps for ensuring financial adequacy for the sector and for sub-sectors; establishing criteria for allocations for sub-sectors; and introducing result-based financial management

Outcome 4. Establishing and making operational the appropriate mechanism and process for guiding, overseeing and supporting holistically the realization of the major policy objectives and established priorities of the education system

Outputs

- Consideration of appropriate management approach for the school education sector examining pros and cons of current responsibilities of two ministries

Targets

- Based on government decision, finalization of draft statute for establishing a permanent National Education Commission for formal consideration and adoption by the National Parliament
- Stakeholder consultation on management of school education under two ministries

Outcome 5. Strengthening capacity, capability, technical skills and leadership skills in the management structure and among personnel at different levels in the education system

Outputs

- Establishing and applying model performance standards linked with incentives which may be adapted to different education sub-sectors to strengthen personnel management
- Capacity building and professional development model for management support, supervision, and inspection for sub-sectors to maintain and promote quality standards

Targets

- Performance standards for education workforce of different kinds establishes and steps taken for making operational the mechanisms and regulatory processes for applying the standards

Outcome 6. Enhancing accountability and transparency in education governance and management.

Outputs

- Promoting the idea of codes of conduct for students and teaching personnel and developing model codes which may be adapted for different types of institutions.

- Developing standards and practices regarding transparency, accountability and standards of probity for educational institutions

Targets

- Development of model codes of conduct for teachers and students and beginning of their adaptation and adoption at different levels and types of educational institutions.

- Governing bodies of institutions at different levels and of types begin review of current practices and regulations regarding transparency, accountability and standards of probity and institute changes as needed

The outputs and targets listed above are incorporated in the Results Framework listing the key outcomes, outputs, indicators, means of verification, responsible agencies/actors for implementation and identification of the enabling conditions, risks and risk mitigation measures (See chapter 8).

Activities

As noted in chapter 4, the required directional shift will take time. The five-year time frame of the ESP must be seen as a phase of preparation, planning, assessing and examining the present status and moving ahead pragmatically. The implementation approach foreseen for the cross-sectoral issues is regarded as appropriate also for work on the overall governance and management improvement for the education sector. A technical assistance mode may be applied as the appropriate methodology for this area of concern.

For the sector as a whole and for sub-sectors/cross-sector objectives/outputs related to governance and management, formation of a high-level decision-making and leadership mechanism supported by necessary technical assistance is seen as a practical way to proceed.

An inter-ministerial steering committee chaired by the MoE Minister, or in turn by MoE and MoPME, to oversee and coordinate all activities related to fulfillment of the ESP and SDG4 targets with the participation of policy makers, administrators and education experts, is proposed. A high-level ESP Implementation Taskforce under the guidance of the Steering Committee will provide continuing oversight and supervision of the ESP policy implementation including the governance and management reform component (see chapter 6). A technical assistance team on governance and management will be answerable to this taskforce. The following steps will be necessary to move forward on the sector-wide governance and management issues:

1. A TA team works on an overall sector master plan to strengthen governance and management. Tasks below have to be conducted by the technical team reportable to a high-level ESP Implementation Taskforce.

a. Record/summarize current activities (including on-going sector-wide programmes), objectives, targets, strategies, gist of progress, and any critical issue, focusing on governance and management.
b. Determine need for modified objectives/targets or addition for sub-sectors based on relevant governance and management objectives and targets with phasing.
c. Specify implementation mechanism and responsibility and implementation strategy by sub-sector and across the sector for governance and management objectives/targets.
d. Specify monitoring indicators, mechanism and plan by sub-sector and across the sector for relevant objectives/targets

2. The high level taskforce based on the TA team's work, decides on mechanism for implementing primary and secondary education planning and management devolution to district, upazila, and institution levels including district and upazila education budgeting;
3. The taskforce assisted by the TA team assesses current decentralization moves and continue/accelerate these as appropriate.
4. The taskforce with the TA team works on education sector resource planning with a 2030 timeline with benchmarks, and allocation criteria linked to key objectives of quality, inclusion, equity.
5. The TA team under the taskforce initiates work on education resource accounting covering public, private, household resources. Development partners may be a source of technical support.

6. IMPLEMENTATION ARRANGEMENTS

Bangladesh's education system is large with over 40 million students at different levels served by a large variety of providers. Teaching is provided through both formal and non-formal channels. There are two ministries that oversee the education sector, namely, the Ministry of Primary and Mass Education and the Ministry of Education. MoPME and MoE will have major roles and responsibilities for implementation of Bangladesh's Education Sector Plan. Across the education sector and sub-sectors there are cross-cutting issues which do not fall squarely under either ministry and which require a coordinated approach, and mechanisms to facilitate working together of all concerned across the entire education sector. The implementation arrangements for the ESP will have to be strong to ensure the necessary coordination for the sector as a whole, to guide and support sector-wide objectives, taking a holistic view of educational development, and to facilitate effective implementation of activities across the sub-sectors.

The present chapter discusses the current implementation arrangements for the sub-sectors (see Annex 6.1 for a short description of the current situation) and presents what needs to be done to develop and reshape the arrangements for carrying out the ESP and fulfilling its outcomes and targets related to sub-sectors and across the sector.

6.1 CURRENT IMPLEMENTATION ARRANGEMENTS AND REQUIRED CHANGES

The ESP contains a range of sub-sectoral outcomes and targets as well as cross-cutting outcomes and objectives for the sector, all of which are expected to be achieved by implementing the ESP. As noted, well-established structures and mechanisms for governance and management at present support the implementation of the sub-sectoral programmes. The cross-cutting sectoral concerns are also looked at under the purview of the sub-sectoral programmes as mentioned in chapter 4.

Several of the sub-sector programmes have been implementing byMoPME and its subsidiary bodies. These are pre-primary and primary education and non-formal education including literacy and adult education programmes, the second chance equivalent of primary education. The agencies under MoE – the directorates and the education boards – have been implementing the programmes for the sub-sectors of secondary and higher secondary education, madrasah education and TVET (other than technical, vocational and professional education and training offered by other ministries and agencies, such as, Health, Labor, Industry, Women and Children Affairs and Youth). Implementation of tertiary level college and university education development is under the jurisdiction of MoE with regulatory and supervisory functions carried out by the University Grants Commission.

Teachers' professional development and in-service upgrading is conducted by entities under the two ministries for the respective levels of institutions. The National Curriculum and Textbook Board (NCTB) is a semi-autonomous body that reports to the Ministry of Education, but a wing of the board caters to the needs of primary and pre-primary education. The Bangladesh Bureau of Educational Information and Statistics (BANBEIS) is an agency that reports to MoE and collects educational data for institutions under the MoE domain. It reports statistics for the education sector but data for primary education and literacy are provided to it by respective agencies under MoPME.

The need for strengthening the existing implementation mechanisms, building their capacities and introducing other structural reforms such as decentralization and increased accountability

in line with the ESP objectives have been noted in the sub-sectoral programme discussions in chapter 3. Besides strengthening the sub-sectoral implementation mechanisms, these will be placed within an overall ESP implementation structure, thus allowing a coordinated and holistic approach to implementation. This is further discussed below.

There is a structural gap regarding holistic and comprehensive development, planning and management of the education system related to managing cross-sectoral areas of education as programmes and projects are taken on a sub-sectoral basis. As a result, the cross-sectoral areas of education, which are related to the entire educational system rather than a sub-sector, may not receive due attention. Five such areas have been identified and described in chapter 4.

While the cross-sector areas of concern are relevant to the sub-sectors and affect the sub-sector work profoundly, the causes and consequences of the problems cannot be fully explained and articulated discretely by each sub-sector, nor can the solutions be found by separate and uncoordinated action in sub-sectors. A more integrated and comprehensive approach, backed up by high level government policy support, is needed for these cross-sectoral issues, which then can lead to appropriate sub-sector adaptations and adjustments.

A sector plan, by its very nature, requires an integrated and holistic approach to plan implementation. Indeed, the possibility of adopting a holistic approach to plan implementation is the justification for a sector plan. For effective implementation of the ESP, the implementation structure and arrangements have to be such that enables adopting a coordinated and integrated approach which guides both sub-sectoral and cross-sectoral policy and program actions in the education system.

Nonetheless, a coordinated and holistic approach is essential for successful implementation of the ESP. Recognizing the current realities, a pragmatic mechanism for coordination and collaboration for ESP implementation is presented.

6.2 Implementation Approach for Cross-Cutting Areas

The cross-cutting objectives and targets are expected to contribute to achieving transformative outcomes related to more than one or all of the sub-goals across the sector and require taking a longer-term view. The aim is to go beyond continuing mainly with expansion and incremental improvement of services within the present sub-sectoral structures.

The early priority in the cross-cutting areas, as noted in chapter 4, will be to seek clarity and consensus about the nature of the problems and delineating the pragmatic and workable solutions supported by policy decisions. The tasks and steps, therefore, are somewhat different from those in the sub-sector areas. The targets indicated for the cross-cutting issues are more in the nature of review, assessment, and consensus building regarding what is to be done so that the outcomes, outputs and interventions can be worked out and piloted with a limited scope for eventual wider application. This overall approach for the cross-cutting areas will guide the implementation activities. The technical assistance (TA) may be a mode to move the activities forward. The TA approach would allow mobilizing the appropriate expertise and facilitating the necessary activities. The provision for TA would have the flexibility to carry out the work, engaging with the concerned stakeholders, developing the strategies and plans, helping forge a consensus, and proposing the locus and responsibility for action which, it is expected, could eventually meld into the organizational culture and structure in Bangladesh.

Each of the cross-cutting issues need to be explored and clarified to examine the current situation, to develop the intervention programmes, to help achieve a common understanding of it among key actors and to propose and support workable implementation arrangements..

An issue is the identification of appropriate focal points in the government which will determine the terms of reference and tasks to be undertaken through technical assistance, guide and supervise the technical assistance teams and hold them accountable. An inter-ministerial steering committee chaired alternately by MoE and MoPME Ministers to oversee and coordinate activities related to fulfillment of SDG4 targets has been proposed in the SDG4 Strategic Framework. Such an arrangement can serve both the purposes of ESP implementation and SDG4 coordination.

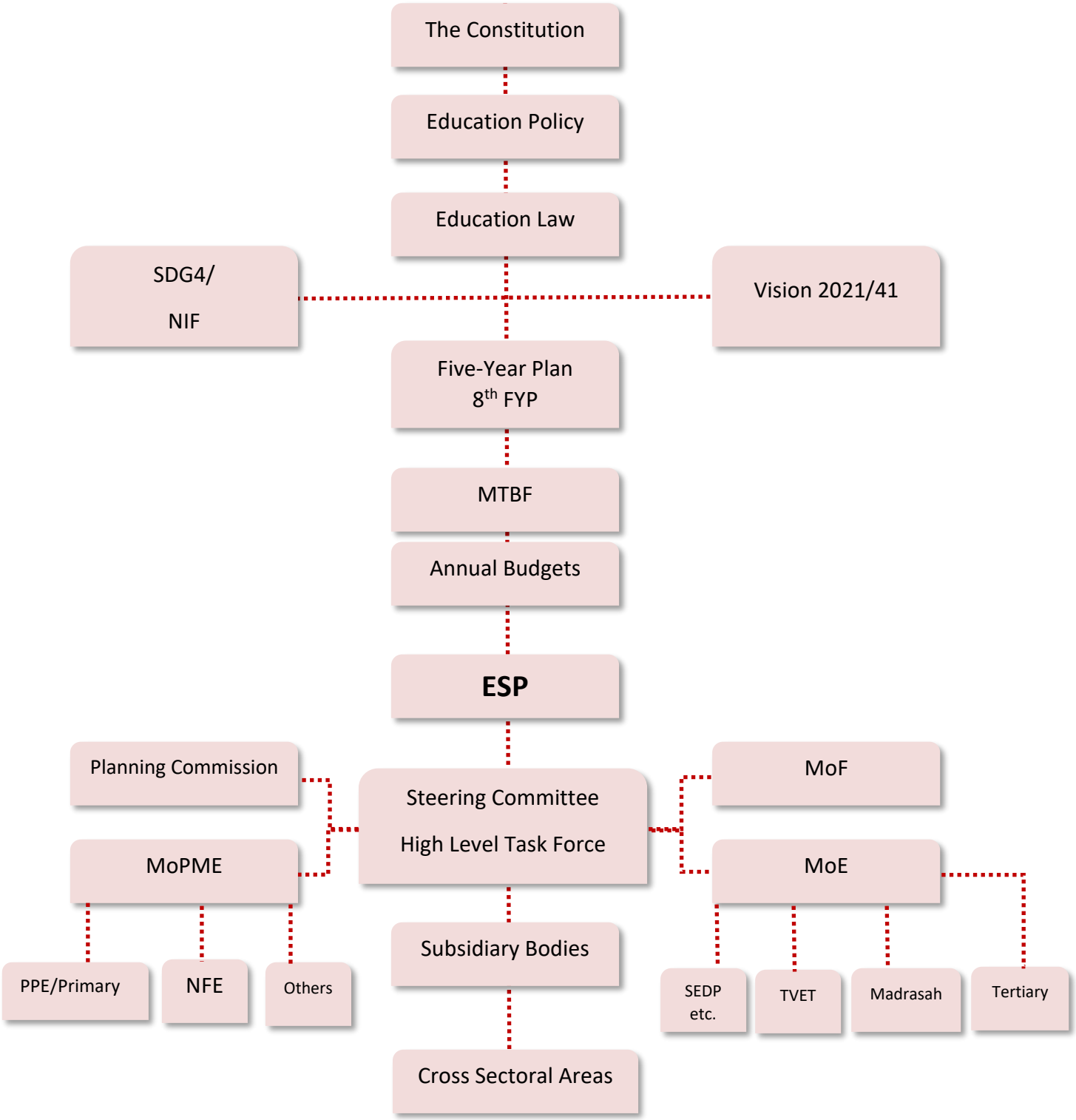
To sum up, for the sector as a whole and for sub-sectors/cross-sector objectives and outputs related to overall implementation of the ESP, creation of a high level guidance and leadership mechanisms supported by appropriate subsidiary bodies and technical assistance will be a practical way to proceed forward in the current circumstances.

Implementation oversight of the ESP will require more intensive, hands-on and continuous engagement of the proposed high-level body and its supporting entities than may be necessary for following up SDG4 progress. The advantage is that they both are connected and mutually complementary.

The Steering Committee can be assisted by a subsidiary body in the form of a taskforce of senior officials and experts chaired alternately by the Secretaries in the two ministries. Working groups of officials and experts reporting to the senior taskforce can work with respective agencies of the ministries for guiding and supporting the myriad implementation activities. The structure and responsibilities for ESP implementation are further explained below.

6.3 ESP Management And Implementation: Structure and Responsibility

Figure 6.1: ESP Management Schematic



ESP Management Structure

Figure 6.1shows how the ESP as a comprehensive and time-bound plan for the education sector fits into the overall legal, policy and organizational framework of national development and

educational development. The Constitution, mainly Article 17, lays out the state's obligation regarding people's education. The 1990 Compulsory Education Act, other current laws and a comprehensive education law under consideration will provide the legal basis for conducting education services. Education policies, particularly the National Education Policy 2010 (likely to be revisited), and the Vision 2021 and 2041 statements provide policy guidance for educational development. Vision 2021 and 2041, the articulation of the broader national development aspiration of transforming Bangladesh into a developed country call for viewing education and human development priorities in the light of the broader national goals. SDG4, the global education agenda by 2030, which Bangladesh has adopted as relevant and necessary for fulfilling its own aspirations, provides another lens for examining national education development priorities and monitoring progress in education.

The national five-year planning process places education within the overall medium-term national development framework. With a common timeframe for the 8^{h}Five-Year Plan and the ESP, the alignment of the two is expected. The Medium-Term Budget Framework (MTBF), a three-year rolling public expenditure planning exercise, and the annual national budgets provide the financial wherewithal for educational planning, that is, the ESP and its implementation.

The upstream legal, policy and financial elements of ESP must be complemented and supported by downstream structures and mechanisms for implementation of ESP. The existing implementation entities under the two concerned ministries and the three divisions operate through a sub-sector planning and management arrangement. Hence, an organizational innovation is necessary to ensure that cross-sectoral components of the ESP are given due attention and a holistic sector-wide view guides all education outcomes and activities. This would serve as a pragmatic arrangement until a consensus is forged on the issues of a unified ministerial jurisdiction and a permanent national education commission as the guiding and oversight entities. The downstream implementation mechanism and key actors are described below.

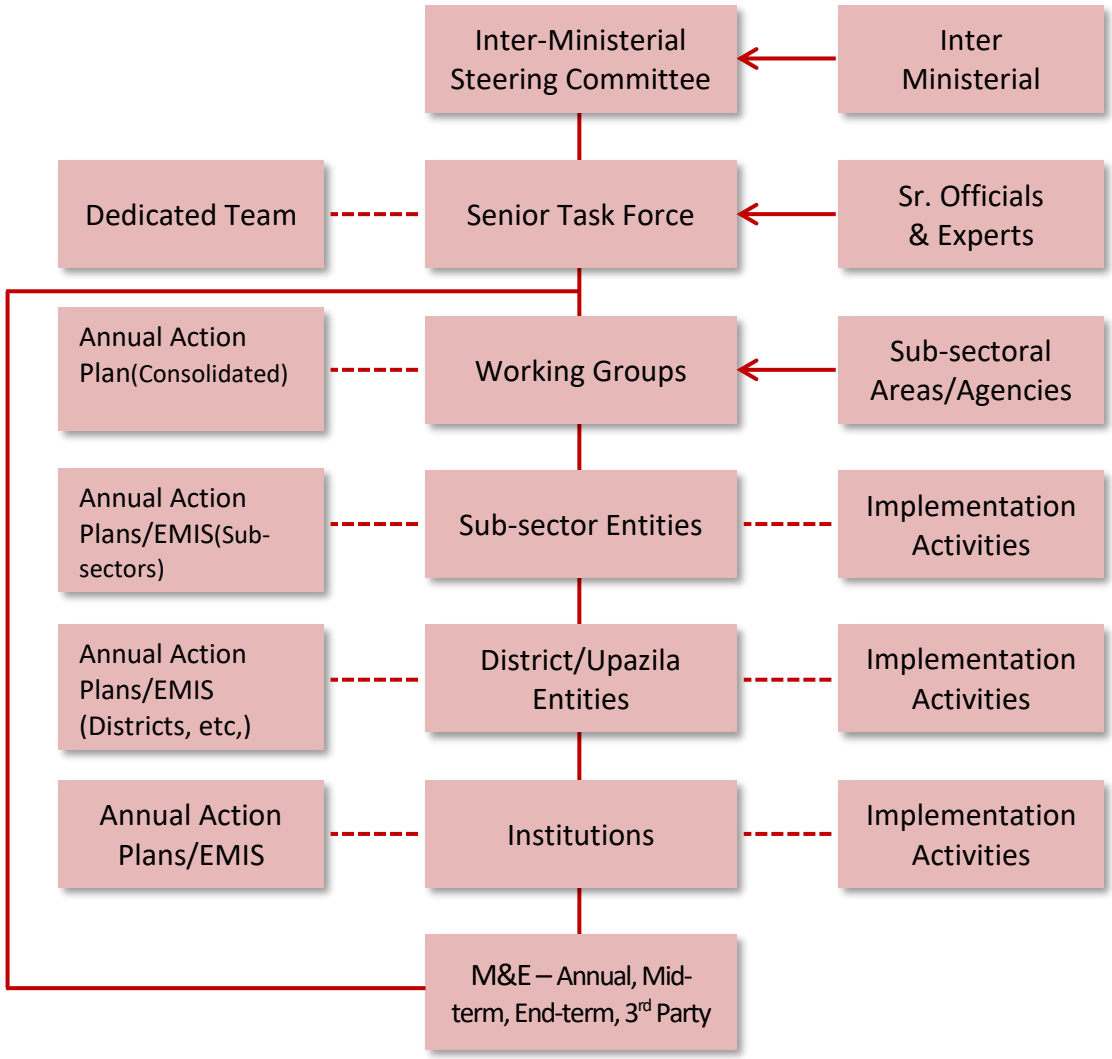
ESP Implementation Structure and Responsibility

Figure 6.2 shows the essential elements of the organizational structure for ESP implementation and the key loci for leadership, carrying out essential tasks and ensuring accountability. The hierarchy and structure of implementation, as shown in Figure 6.2, is described below.

High level steering committee. Organizational innovation for implementing the comprehensive plan is reflected in establishing an inter-ministerial steering committee and the senior officials' taskforce. The steering committee will be chaired by the Minister of Education, or alternately in turn by the Ministers of MoE and MoPME. This body will have the representation of the Ministries of Finance and Planning as well as distinguished personalities from the civil society and the academia concerned with educational development. It will provide overall leadership, guidance, oversight, monitoring of progress on higher order priorities of the system, and secure government support for smooth ESP implementation.

Figure 6.2: ESP Implementation Structure and Responsibility

Note: The solid line with arrow indicates the composition of the body. The broken line indicates function of the respective body.



A senior taskforce. A senior officials' taskforce, headed in turn by a secretary from the two education ministries will include concerned senior officials and experts from the education sector and will be actively engaged in taking higher order policy and strategy decisions for facilitating, supporting and overseeing ESP implementation. The taskforce will report to the steering committee and will function with the guidance of the steering committee. One of the major tasks of the taskforce will be to appoint the TA/dedicated technical teams and to act upon the technical outputs and results. At least six TA/dedicated teams are anticipated for the five cross-sectoral areas identified and one on governance and modeling education decentralization as discussed in chapter 5.

Working groups. Major parts of the ESP activities still will be carried out through existing implementing arrangements of the respective ministries and their subsidiary bodies. Multiple working groups comprising ministry personnel (and experts as needed) will work closely with the respective entities of concerned ministries and their subsidiary agencies to facilitate

implementation of the sub-sectoral activities. The working groups will function under the guidance of the high level taskforce and will be the link between the high level taskforce and the existing sub-sector implementation mechanisms such as for PEDP4, SEDP and the Strategic Plan for Higher Education (through UGC). The working groups will facilitate and support the preparation of annual sub-sectoral workplans at national and district levels and strengthening of EMIS at different levels. The scope of decentralization will progressively expand with the trial of the decentralization model. The working groups will also encourage and support greater autonomy with accountability at the institutional level.

It is anticipated that there will be working groups for the sub-sectoral programmes for pre-primary and primary education, secondary education, higher secondary education, non-formal education, TVET, tertiary education, and madrasah education. Sub-committees of working groups may be formed for time-bound specific topics and activities. The TA teams can be regarded as the counterpart of working groups for the cross-sectoral topics.

A key function of the working groups will be to formulate annual work plans or action plans keeping in sight the final-year targets and outputs, required activities and pace of progress for sub-sectors at the national level, taking the results framework as the guide (See chapter 8). It is anticipated that the experience of the first one to two years of the ESP will help develop the appropriate template and content of the annual work plan for sub-sectors and cross-sector areas, and their consolidation at the national level. The working groups will also guide the preparation of consolidated work plans at the district level and upazila levels. The senior taskforce will review consolidated national work plan for ESP, help troubleshoot as needed and oversee progress.

Monitoring and evaluation. A critical marker of successful implementation of the ESP is effective monitoring, evaluation and third-party independent assessment of ESP progress and performance. Various monitoring and evaluation activities have been proposed in respective sections and have been included in the *results framework* table under the heading of means of verification of progress.

The respective working groups with the guidance of the senior taskforce will ensure that the necessary steps are taken for annual monitoring, mid-term and end-term evaluation and various third-party assessments. The working groups will receive and review the monitoring and evaluation results and will forward findings and make recommendations to the high level taskforce.

6.4 Action Plans to Support ESP Implementation

The main elements of an ESP action plan include the program components of the sector plan and their objectives and outputs, the essential information about inputs – human, material and financial, as well as outputs and unit costs that make it possible to prepare annual plans of action and report progress. The costs and available funding have to match or gaps and ways of bridging the gaps have to be indicated. Output indicators have to be shown and the entities responsible for implementing the programme components have to be identified. (IIEP-UNESCO, 2015)

In this ESP the key elements of the implementation action plan are integrated into respective sections of the document. Chapter 7 shows the costing and resource frame including gaps and prospects of bridging the gaps. Chapter 8 provides the results framework and the Key Performance Indicators (KPIs) showing outcomes, outputs, indicators, means of verification and key responsible actors.

The results and monitoring framework presented in chapter 8 provides key features of the implementation plan. The results framework brings together the key outcomes, outputs, indicators, means of verification of progress, and the main responsible actors for realizing the respective outcome and output. It also indicates the risks and risk mitigation steps and creating the enabling conditions for achieving the results. The results framework will guide the preparation of annual plans of action at the national and district and upazila levels, providing a clear focus on results for these action plans.

The development partners as members of the local education consultative group (ELCG) will interact with the subsector working groups and will be involved in the implementation monitoring process, mechanism, reviewing results, and considering implications for program activities. They will also be associated with third party evaluation, midterm review of ESP and annual review subject to approved plans and decisions of the senior task force.

In order to keep the sight of decision-makers and concerned stakeholders directed at the major outcomes of ESP, the Key Performance Indicators (KPIs) have been identified. The KPIs are based on the three pillars of the national sector plan, namely, access and equity, quality and relevance, and governance and management. The KPIs are derived from and linked directly to specific items in the results framework, thus maintaining the result orientation in ESP implementation.

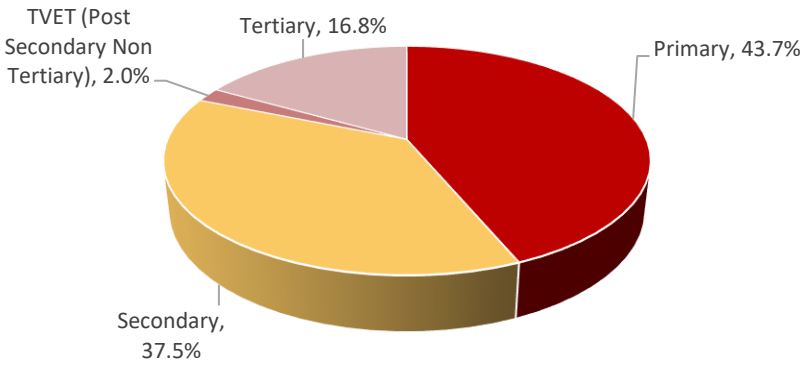
7. COST AND FINANCE

Bangladesh is currently a lower-middle income country that aspires to become an upper-middle income one by 2021 and eliminate poverty by 2030. In line with this macroeconomic aspiration the Government of Bangladesh (GoB) has been allocating significant public resources for the education sector. The education profile of the population has changed significantly in recent decades starting from a low base. The share of adult population having completed primary education increased from 30 percent to 45 percent and the adult population having completed secondary education increased from 8 percent to 13 percent (Bhatta et. al. 2019). In this section, the education expenditure trends, expenditure outcomes and financing challenges are discussed. This is followed by a simulation of costing for the main sub-sectors of the ESP (2021-25). Quantitative targets and unit costs have been used for the exercise based on current patterns, stated objectives and best estimates of the study team. The budgetary gap and possibility of filling the gaps under assumptions regarding GDP growth, national budget growth and share of national budget allocation for education are presented.

7.1 EDUCATION EXPENDITURE TRENDS

Public expenditures for education in Bangladesh are channeled mainly through three ministries/divisions. These are: 1) Ministry of Primary and Mass Education, 2) Secondary and Higher Education Division of the Ministry of Education, and 3) Technical and Madrasah Education Division of the Ministry of Education. Each of these ministries/divisions channels the public investment for education through multiple agencies. The total education allocations channeled through the three ministries/divisions increased from BDT 342 billion in FY 2015-16 to BDT 594 billion in 2019-20 (a 73 percent increase in nominal terms in 5 fiscal years). In terms of sub-sector wise allocations, primary education receives highest priority. Secondary gets the second highest priority, which is then followed by the tertiary sub-sector. Expenditure on secondary level TVET (SSC and HSC) is generally shown under allocations for the secondary sub-sector. Post-secondary level TVET allocations are shown as allocations for 'Post-Secondary Non-Tertiary.' TVET as a separate sub-sector, receives a very small share of the total public sector allocations for education in Bangladesh. This does not include the TVET and skills development public expenditure of various ministries and agencies other than education. The next two figures show the distribution of public resources among the four sub-sectors (non-development and development allocations).

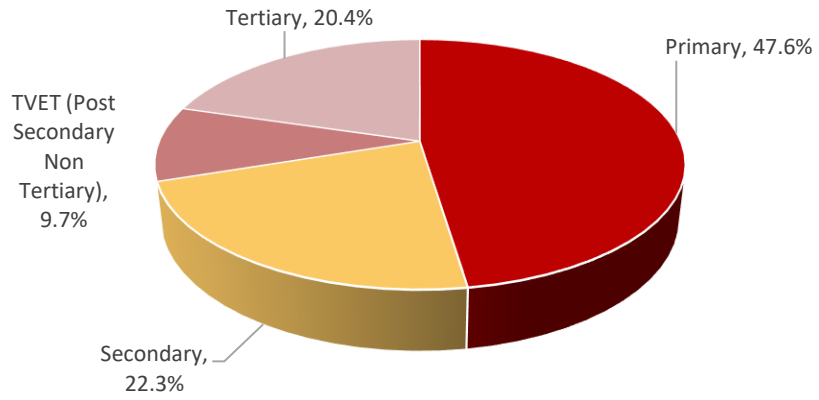
Figure 7.1: Share (%) of non-development allocations (FY 2017-18) for different sub-sectors of education in Bangladesh



Source: BANBEIS 2018

Figure 7.1 shows that primary education receives almost 44 percent of the total non-development budget and secondary education receives another 38 percent. Tertiary education receives around 17 percent of these allocations, whereas that of TVET (post-secondary non-tertiary) receives a meager 2 percent. In case of development allocations, the ratio for primary education remains similar, while that of secondary decreases (to just over 22 percent). And consequently, the shares for TVET (post-secondary non-tertiary) and tertiary increases significantly (Figure 7.2). The proportions between recurring and development vary from year to year significantly, but generally indicate allocations for development in alignment with the macro-economic objectives.

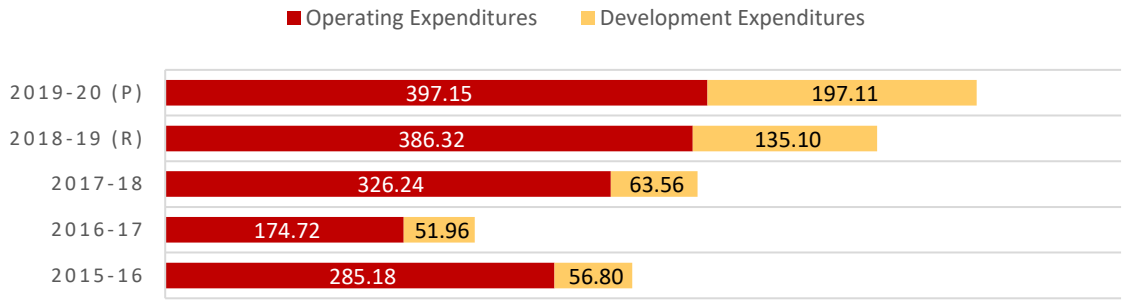
Figure 7.2: Share (%) of development allocations (FY 2019-20) for different sub-sectors of education in Bangladesh



Source: ADP 2019-20, Finance Division, Ministry of Finance

In the national budget for education, operational expenditures have been higher compared to development expenditures. However, a trend of increasing the share of development expenditures is visible. In FY 2015-16, the share of the development budget in the total education budget was about 17 percent. In the budget for FY 2019-20 this share increased to over 33 percent. The share of the development budget in the overall budget for education has almost doubled in the last five years (Figure 7.3).

Figure 7.3: Share (in billion BDT) of operating and development expenditures for education allocations in national budget for the recent five fiscal years

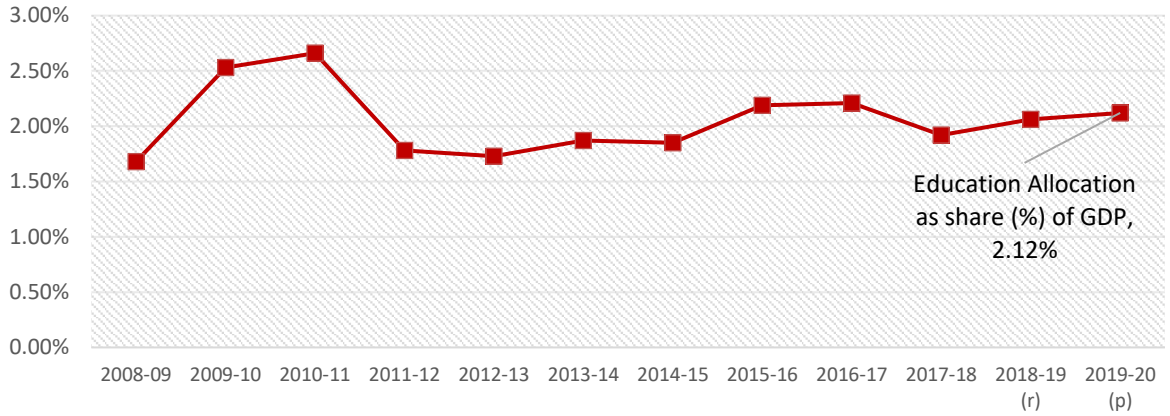


Note: R – Revised; P- Proposed.

Source: Budget Documents, Ministry of Finance, Government of the People's Republic of Bangladesh

Between FY 2008-09 and 2019-20, education budget has increased just over 5 times, whereas the total national budget has grown almost 6 times. Public expenditure in education still hovers around 2 percent of GDP and during recent fiscal years its share in the total national budget has been between 13 to 16 percent. Stakeholders suggest that this share needs to go significantly upwards to face the new challenges and attain the national development goals.

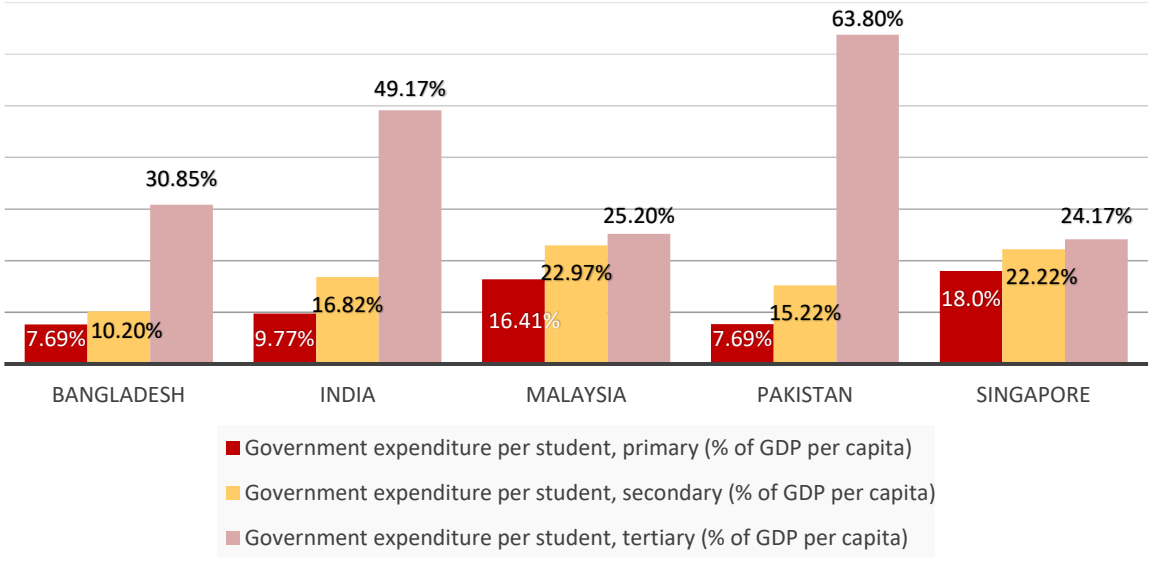
Figure 7.4:Allocation for education sector as share (%) of GDP of Bangladesh



Source: Budget Documents, Ministry of Finance, Government of the People's Republic of Bangladesh

Comparative data show that per student public expenditure at all levels of education has been low in Bangladesh. The relative ratio of expenditure for different levels of education also are in contrast to the pattern in more developed education systems, such as those of Singapore and Malaysia, with a more balanced distribution among levels of education, and similar to the low performing systems, such as those of India and Pakistan.

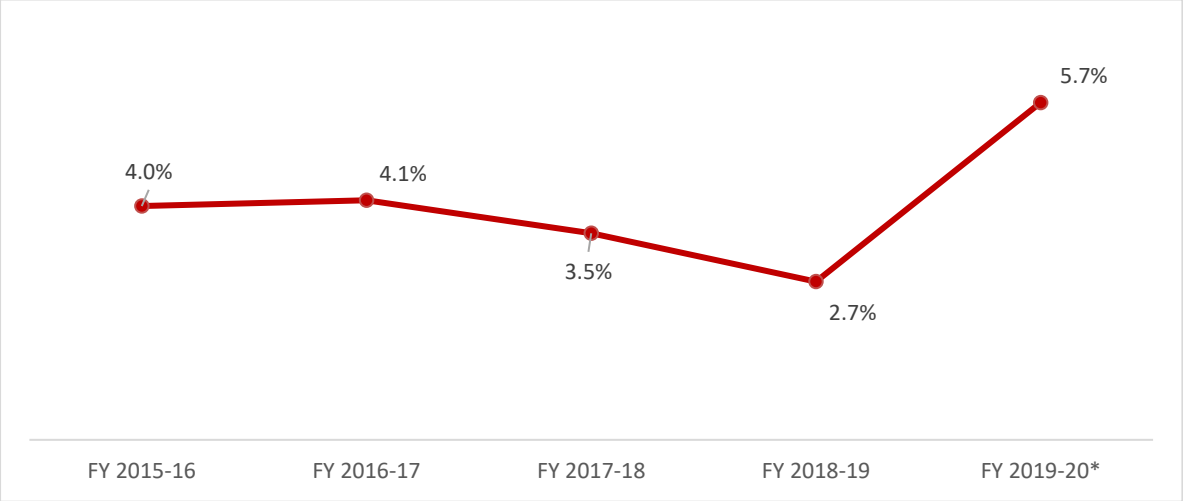
Figure 7.5: Government expenditure per student at different levels as % of per capita GDP for Bangladesh and some other countries



Source: UNESCO Institute of Statistics (http://uis.unesco.org/)

External assistance for education supports development expenditure. GoB Finance Division data reveals that between FY 2015-16 and FY 2019-20, on an average Bangladesh has received approximately BDT 2,000 crore annually as foreign assistance for development expenditure in the education sector. This implies that on an average, 4 percent of the total education budget has been being financed by external assistance (see Figure 7.6).

Figure 7.6:Foreign assistance in education as share (%) of total education budget for FY 2015-16 to FY 2019-20 (proposed).



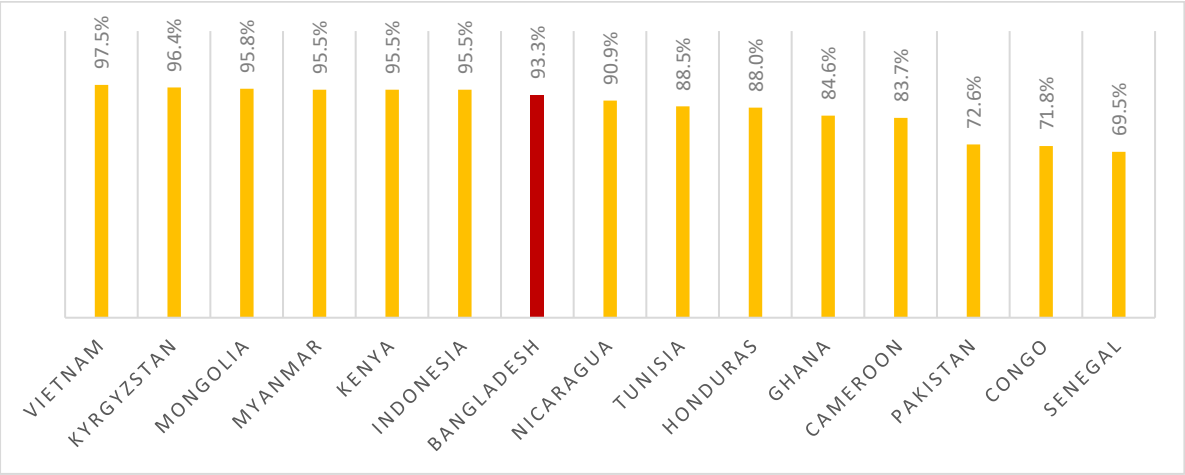
Source: Calculated from data in Bangladesh Economic Review 2019, Finance Division, Ministry of Finance, GoB

7.2 EXPENDITURE OUTCOMES

Bangladesh is considered efficient in utilizing public resources to ensure access to education. The argument is that though the country has been investing a small share of its GDP in education, it is performing comparatively better in terms of education indicators. For example, a child born today in Bangladesh can expect to have an average of 6.5 years of schooling before age 18 (Miningou, 2019). The average ratio is 6.6 years for Lower Middle-Income Countries (LMICs). The ministries and divisions responsible for implementing the budget allocated for the education sector have been found to be relatively efficient in spending the allocations (i.e. not leaving funds unspent by the end of the year). In terms of budget implementation (i.e. actual expenditures as share of the total budget allocated to a sector or ministry), education has been doing relatively better compared to sectors such as health and agriculture.

Miningou (2019) has also found efficiency in translating public expenditure into results related to access to education in Bangladesh to be higher compared to many LMICs. The efficiency ratio for Bangladesh is reported to be 93.3 percent, which is significantly higher than a number of other developing countries(Figure 7.7).

Figure 7.7: Efficiency in translating budget allocations into access to quality education for Bangladesh and other LMICs

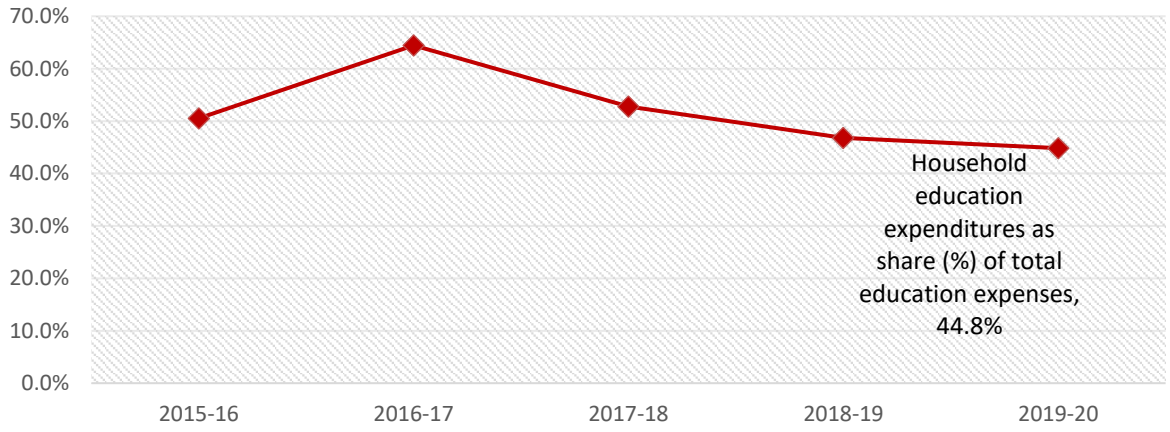


Source: Miningou, 2019

By and large, there is a strong rationale for increasing the education sector budget significantly. At the same time, there is need for increasing overall effectiveness of educational investments and examining and removing structural barriers to realizing better returns on substantially larger investments in education. Most importantly the price that is being paid for expansion of services at low cost may be in terms of quality learning outcomes – resulting in a low cost and low-yield system.

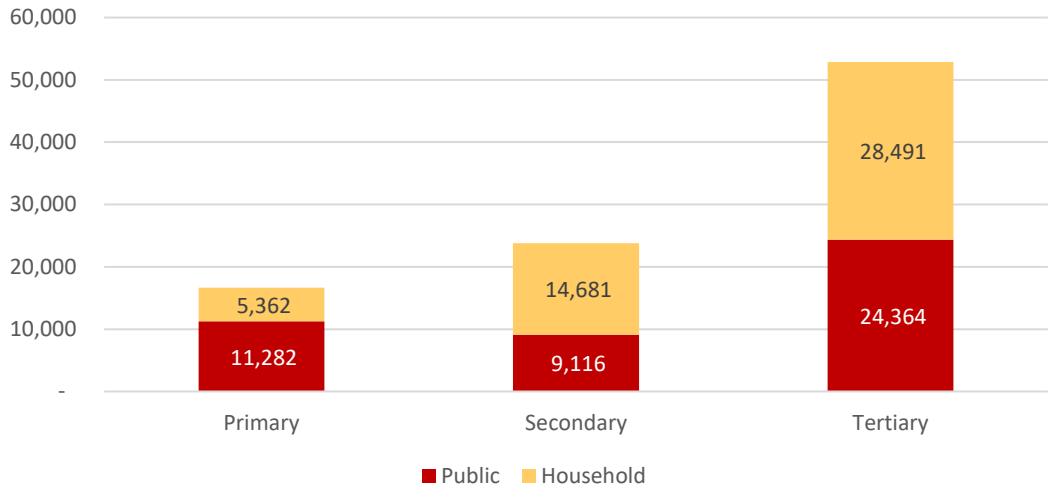
The share of out of pocket expenditures by households in total education expenditures has been substantial but declined from over 50 percent in FY 2015-16 to 45 percent in FY 2019-20 (Figure 7.8). A point to be noted is that households have been spending a smaller share of their total income for education in FY 2019-20 compared to FY 2015-16.The ratio decreased from 5.46 percent to 5.29 percent. This has been the trend in many developing countries, including in South-East Asia.

Figure 7.8: Household education expenditure (out of pocket expenditures for education) as share (%) of total education expenditure in Bangladesh



Source: Household expenditures have been estimated based on data available from HIES reports 2000, 2005, 2010, and 2016

Figure 7.9: Per Student Educational Expense by Govt. and Household FY2018-19 by education sub-sectors



Source: Household expenditures have been estimated based on data available from HIES 2016 report and govt. expenses data from Ministry of Finance

Analysis of data reveals that per student expenditure per year (public and household combined) is lowest for the primary level and highest for tertiary, which is expected. However, public expenditure per student is higher for primary level than secondary level (BDT 11 thousand and BDT 9 thousand respectively). This reflects government commitment to compulsory and free primary education up to grade 5. This commitment needs to be extended to the secondary level in the light of the SDG4 pledge for universal and free secondary education with significant implications for public expenditure in education.

7.3 Financing Challenges Ahead

It is fundamental to have adequate financial resources and political commitment to attain the 2030 education agenda and the interim goals and objectives. While political commitment to this agenda is expressed, this needs to be coupled with financial backing and a plan for coordinated effort. Education finance planning needs to consider the domestic resource mobilization, the global resource challenge and spending efficiency.

Resources for results. The critical point that arises from the discussion above is that effective action must be taken to translate the targets, strategies and indicators into results in learning, skills and capabilities of people. Adequacy of resources and budgets is a necessary condition for realizing this aim. How the resources are used will make the real difference. Adequacy must be examined along with efficiency and effectiveness of resource use, as well as the consequences for equity in educational opportunities, which is a social priority.

Global resource challenge. By 2030, low and middle-income countries will need to increase spending on education from the current USD1.2 trillion per year to USD3 trillion, according to the Global Partnership for Education (GPE). The Incheon Declaration recommends that national governments allocate 4 to 6 percent of their gross domestic product (GDP) and/or at least 15 to 20 percent of their total public expenditure to education, with a focus on basic education.

(UNESCO, 2015). GoB intends to increase the share of the education sector in the National Budget from the present 13 percent to 16 percent by 2025 and possibly 20 percent by 2030.

Resource adequacy and efficiency in Bangladesh. GoB intends to show a stronger resolve in its public finance commitments for education. There is obviously a resource adequacy concern in relation to the objectives of quality and equity espoused by the government. There are issues about aligning external assistance to national needs and priorities in respect of quality and equity and of efficiency in resource use – both domestic and external. There is also the need to strengthen accountability and to reduce waste and corruption. Addressing these concerns effectively is important in making good use of the domestic education resources, since the proportion of external assistance in education expenditure is relatively low, no more than a fifth of total development spending.

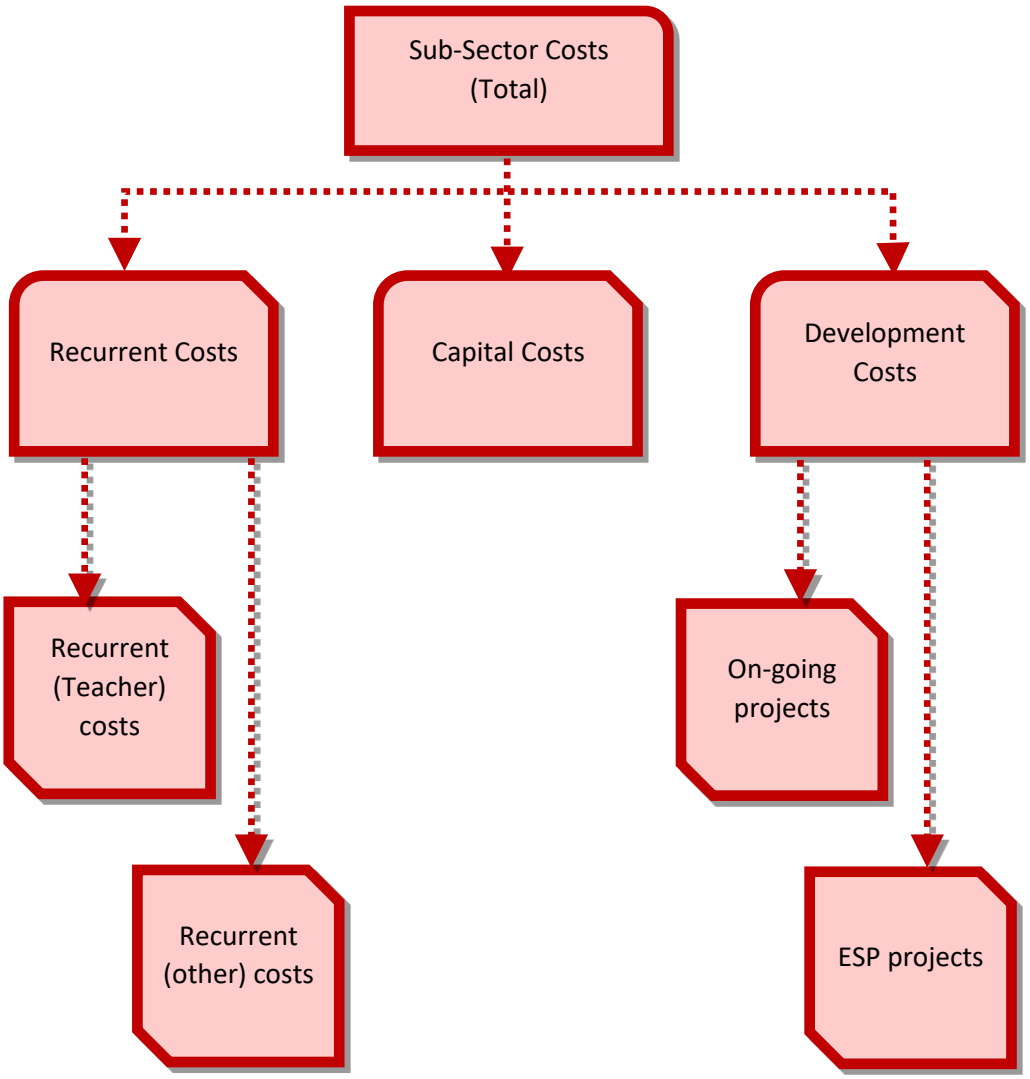
7.4 COSTS FOR EDUCATION SECTOR PLAN: THE SIMULATION MODEL

The discussions in this chapter so far have revealed that GoB has been following a steady trend in allocating resources for the education sector. And despite certain challenges, expenditure outcomes have been commendable. More importantly, parents'/guardians' inclination to invest a significant share of their income in education indicates interest of the people in better education. With the intention of catering to this demand for quality education and to attain the SDG4 this ESP has laid out sub-sector wise targets and activities. This sub-chapter intends to present a model that will simulate the costs/expenses of translating the plan into action over the given period (i.e. between 2021 and 2025). This sub-chapter is then followed by two sub-chapters which will present the outcomes of the simulation exercise- projection of the costs and budgetary gaps (for low and high nominal growth of the economy).

For the sake of this simulation model, the entire education sector of Bangladesh is segregated into seven sub-sectors[3], namely: 01) pre-primary, 02) primary, 03) secondary, 04) higher secondary, 05) TVET (post-secondary non-tertiary), 06) tertiary, and 07) non-formal education. Pre-secondary TVET is covered along with mainstream secondary and higher secondary sub-sectors. Expenditures for each of the sub-sectors are primarily segregated into three broad streams, namely- 01) recurrent expenses; 02) capital expenses; and 03) development expenses. The following figure gives an overview of the segregation of costs for each sub-sector (same structured followed for all sub-sectors, except for non-formal education).

[3] Costs for different levels of madrasah education are considered under respective sub-sectors. That is Ebtadyee costs are considered under primary, Dakhil under secondary, and Alim under higher-secondary sub-sector.

Figure 7.10: Overview of segregation of the sub-sector expenses



Recurrent costs for each sub-sector are segregated into two parts. The first part comprises of the recurrent costs for teachers[4] (salaries, training costs etc.). And the second part is the remaining sum of recurrent costs. The development costs for each sub-sector are also segregated into two parts. The first part comprises the costs of implementing all the on-going education sector development projects as per the Annual Development Programme (ADP) for FY 2020-21. The second part is comprised of the costs of implementing the projects that are newly proposed in the ESP. A point to be noted here is that all initiatives related to the non-formal education sub-sector (implemented by the Bureau of Non-Formal Education, BNFE) are implemented as projects. Hence, all costs for this sub-sector are projected as development project costs (estimations are done as per information provided by BNFE).

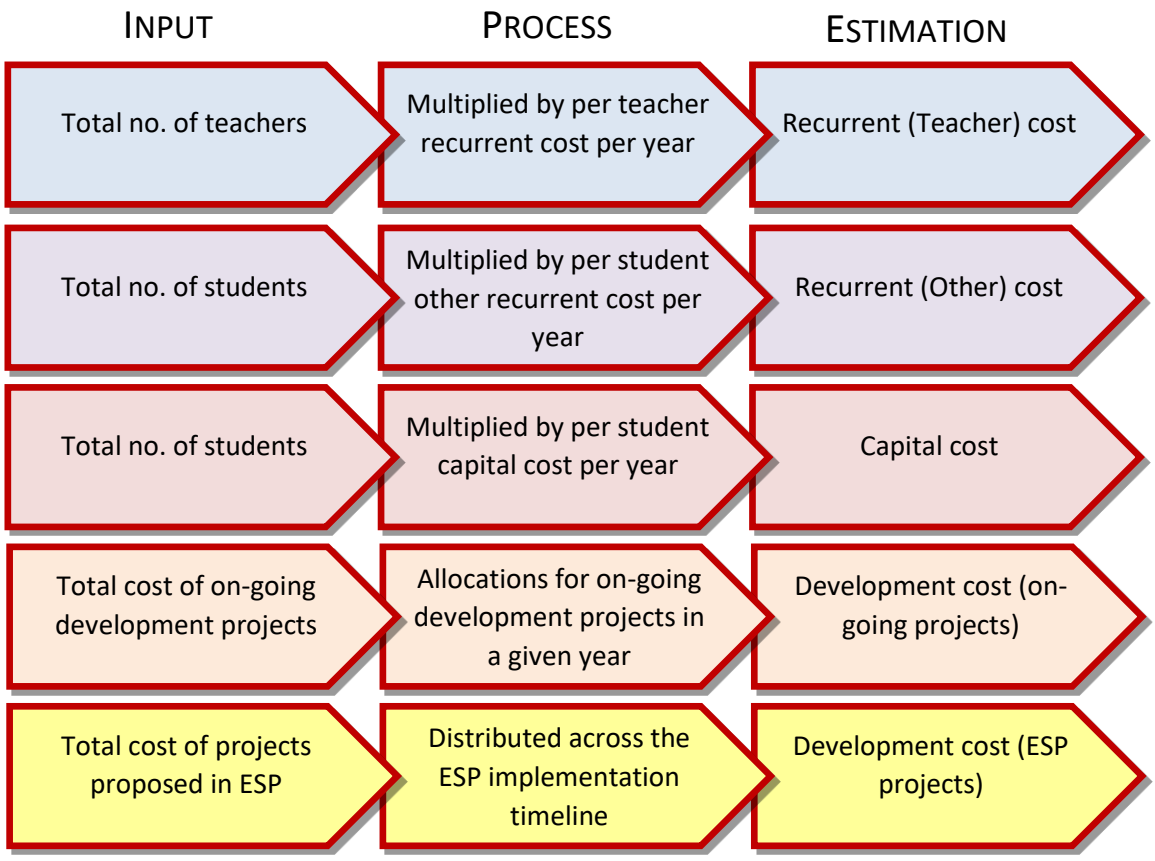
The simulation model considered two variables for estimating the recurrent and capital costs for the sub-sectors (distributed across the cost components shown in Figure 7.10). These two variables are: enrollment targets (i.e. number of students enrolled in a given sub-sector in a given year) and Student Teacher Ratios (STRs). Values of these variables are determined in accordance

[4]UIS shows that Bangladesh in general (aggregate of all sub-sector) allocates 59.5 percent of recurrent expenses on teachers.

with the targets set in the ESP (mentioned in previous chapters and in the results framework). Values of these two variables (i.e. total enrollment and STRs) are then multiplied by the unit cots to estimate the total recurrent and capital costs. The unit costs are taken from Bangladesh Education Statistics 2018 by BANBEIS.

A point to be noted here is that the BANBEIS report presents the recurrent unit costs as a whole for the sub-sectors. It does not segregate the recurrent costs for teachers and that for other recurrent expenses. However, utilizing the UIS data (which shows that Bangladesh invests on an average 59.5 percent of the recurrent expenses for teachers), the recurrent unit costs for teachers is derived from the aggregate recurrent unit cost. But this yields the recurrent cost for teachers per student. Hence, this had to be divided by the respective STRs to get the per teacher recurrent cost.

Figure 7.11: Overview of the simulation model (technique of estimating yearly cost of sub-sectors except for NFE)



The cost of on-going development projects for a given sub-sector in a given year is taken directly from the Annual Development Programme (ADP) for FY 2020-21. ESP has proposed new initiatives to pilot during the ESP period (from 2021-2025). The costs for these pilot initiatives are estimated based on analysis of previous allocations for comparable projects implemented in Bangladesh as well as in other comparable countries. Figure 7.11shows a basic schematic diagram showing the technique of estimation used here to project costs.

7.5 PROJECTING COSTS

This sub-chapter first presents the inputs used in projecting the costs of translating the ESP into action. The inputs are (as discussed before): the enrollment and STR targets from the ESP, the unit costs derived from Bangladesh Education Statistics 2018 report by BANBEIS, the costs of on-going development projects, and the estimated costs of newly proposed development projects.

Estimating Recurrent and Capital Costs

The following table shows the target enrollments and STRs for all sub-sectors, except for non-formal education[5].

Table 7-1: Enrollment and STR targets fed into the simulation model

Sub-Sector[6]	Indicator	Targets					
		2020	2021	2022	2023	2024	2025
Pre-Primary	Enrollment (total)	3,548,520	3,520,504	3,482,210	3,441,099	3,397,199	3,349,400
	STR	31	30	29	27	26	25
Primary (Grade 01 to 05)	Enrollment (total)	15,560,010	15,339,298	15,507,830	15,998,774	16,425,899	16,867,800
	STR	28	28	27	26	26	25
Secondary (Grade 06 to 10)	Enrollment (total)	11,298,989	11,597,158	11,963,228	12,727,365	13,532,534	14,285,476
	STR	48	45	41	37	34	30
Higher Secondary (Grade 11 to 12)	Enrollment (total)	2,273,027	2,334,267	2,503,012	2,522,174	2,971,292	3,910,368
	STR	54	51	48	45	43	40
TVET (Post-Secondary Non-Tertiary)	Enrollment (total)	460,804	748,742	1,010,362	1,265,751	1,515,115	1,758,200
	STR	21	22	23	23	24	25
Tertiary	Enrollment (total)	3,193,523	3,558,404	3,776,864	3,988,910	4,195,358	4,395,500
	STR	40	38	36	34	32	30

[5] Recurrent and capital costs for non-formal education sub-sector are not estimated as all costs for this sub-sector are considered as development costs (project costs).

[6] Primary, Secondary, and Higher Secondary figures in table 7.1 are aggregate figures that cover Aliya Madrasah figures (Ebtedayee, Dakhil, and Alim respectively) along with general education institutions. These however, do not include the Qawmi Madrasahs. At primary (Ebtedayee) level, on an average 8 percent of the students are enrolled in Aliya Madrasahs. The ratios for secondary (Dakhil) and higher-secondary (Alim) are 11 percent and 16 percent respectively.

These inputs (shown in Table 7-1) are then multiplied with the respective unit costs. The unit costs are derived from the BANBEIS report (mentioned earlier). The unit costs utilized for this exercise are given below.

Table 7-2:Unit costs (recurrent teacher, recurrent other, and capital) for different sub-sectors over the ESP period

Sub-Sector[7]	Cost Component	Unit Cost in BDT (annual inflation adjusted) *					
		2020	2021	2022	2023	2024	2025
Pre-Primary	Recurrent (teacher)	159,829	167,664	171,805	174,424	173,792	168,832
	Recurrent (other)	3,502	3,698	3,905	4,123	4,353	4,597
	Capital	356	376	397	419	442	467
Primary (Grade 01 to 05)	Recurrent (teacher)	145,690	150,231	154,825	159,462	164,135	168,832
	Recurrent (other)	3,502	3,698	3,905	4,123	4,353	4,597
	Capital	356	376	397	419	442	467
Secondary (Grade 06 to 10)	Recurrent (teacher)	209,191	203,802	202,012	198,444	192,856	184,995
	Recurrent (other)	3,343	3,530	3,727	3,936	4,156	4,388
	Capital	1,997	2,108	2,226	2,351	2,482	2,621
Higher Secondary (Grade 11 to 12)	Recurrent (teacher)	299,861	307,355	315,040	321,599	326,824	330,486
	Recurrent (other)	4,855	5,126	5,412	5,715	6,034	6,372
	Capital	1,956	2,065	2,180	2,302	2,431	2,567
TVET (Post-Secondary Non-Tertiary	Recurrent (teacher)	341,014	373,381	408,302	445,959	486,551	530,288
	Recurrent (other)	11,000	11,615	12,264	12,950	13,674	14,438
	Capital	5,270	5,565	5,876	6,204	6,551	6,917
Tertiary	Recurrent (teacher)	450,382	451,781	451,928	450,680	447,881	443,360
	Recurrent (other)	7,664	8,092	8,545	9,023	9,527	10,059
	Capital	6,944	7,332	7,742	8,175	8,631	9,114

*Average annual inflation is 5.59 percent (World Bank reports average annual inflation rate for Bangladesh in FY 2019-20 to be 5.59 percent).

Multiplying the targets (shown in Table 7.1) with the unit costs (shown inTable 7-2) the recurrent and development costs for different sub-sectors over the ESP period are projected. The recurrent and capital costs projections for all sub-sectors (except non-formal education) are shown in the next sub-chapter.

[7] The unit costs for Ebtedayee, Dakhil and Alim Madrasahs (Aliya Madrasahs) are aggregated into the figures projected for Primary, Secondary and Higher Secondary sub-sectors respectively

Estimating Development Costs

The next table shows the development costs for all the sub-sectors. It shows the costs for on-going development projects taken directly from the ADP for FY 2020-21 as well as the projected costs of newly proposed (in this ESP) pilot projects.

Table 7-3: Development costs for different sub-sectors (on-going projects and newly proposed projects)

Sub-Sector	Indicator	Year wise allocations (crore BDT)				
		2021	2022	2023	2024	2025
Pre-Primary	On-going Projects	-	-	-	-	-
	ESP Projects	1,980	2,029	2,267	2,547	2,843
Primary (Grade 01 to 05)	On-going Projects	9,278	16,612	16,612	16,612	-
	ESP Projects	3,154	10,155	17,256	17,868	20,181
Secondary (Grade 06 to 10)	On-going Projects	3,625	7,590	2,407	-	-
	ESP Projects	572	642	783	900	1,018
Higher Secondary (Grade 11 to 12)	On-going Projects	3,625	7,590	2,407	-	-
	ESP Projects	78	95	92	146	232
TVET (Post-Secondary Non-Tertiary	On-going Projects	1,684	11,155	10,081	10,081	-
	ESP Projects	76	108	142	180	221
Non-Formal	ESP Projects	692	818	863	912	963
Tertiary	On-going Projects	3,200	6,604	6,604	-	-
	ESP Projects	303	342	384	430	480

Projecting Overall Costs

Multiplying the year wise targets shown in Table 7-1with unit costs shown in Table 7-2the recurrent and capital costs can be projected, and the development costs are shown in Table 7-3. Combining all these overall costs for the sub-sectors can be projected. The overall cost projections are shown in Table 7-4.

Table 7-4:Projecting overall cost of implementing the ESP (2021 to 2025)

Sub-Sector	Cost Components	Year wise allocations (crore BDT)				
		2021	2022	2023	2024	2025
Pre-Primary	Recurrent (teacher)	1,901	1,974	2,047	2,121	2,194
	Recurrent (other)	1,294	1,343	1,393	1,443	1,493
	Capital	131	136	141	147	152
	On-going Projects	-	-	-	-	-
	ESP Projects	1,980	2,029	2,267	2,547	2,843

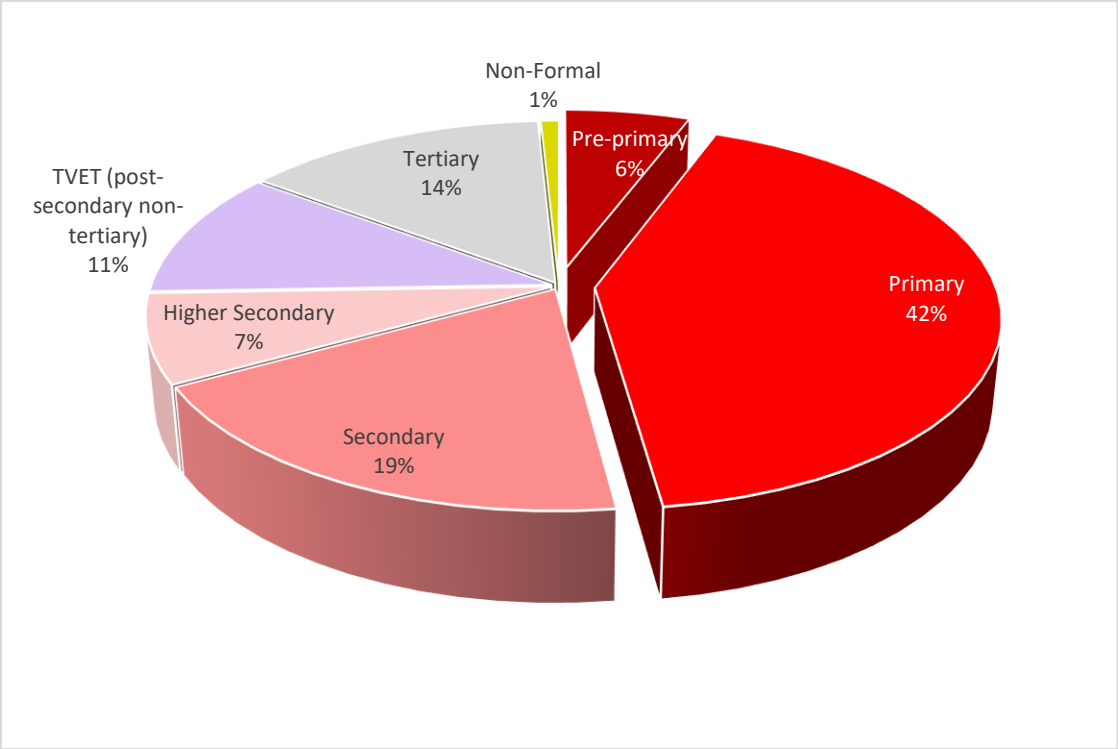
Sub-Sector	Cost Components	Year wise allocations (crore BDT)				
		2021	2022	2023	2024	2025
Primary	Recurrent (teacher)	8,943	9,606	10,529	11,485	12,530
	Recurrent (other)	6,087	6,539	7,167	7,818	8,529
	Capital	618	664	728	794	866
	On-going Projects	9,278	16,612	16,612	16,612	-
	ESP Projects	3,154	10,155	17,256	17,868	20,181
Secondary	Recurrent (teacher)	5,299	5,901	6,771	7,756	8,809
	Recurrent (other)	4,599	4,983	5,568	6,219	6,896
	Capital	2,747	2,976	3,326	3,714	4,119
	On-going Projects	3,625	7,590	2,407	-	-
	ESP Projects	572	642	783	900	1,018
Higher-Secondary	Recurrent (teacher)	1,410	1,637	1,785	2,273	3,231
	Recurrent (other)	1,396	1,576	1,672	2,074	2,874
	Capital	563	635	674	836	1,158
	On-going Projects	3,625	7,590	2,407	-	-
	ESP Projects	78	95	92	146	232
TVET (post-secondary non-tertiary)	Recurrent (teacher)	1,278	1,820	2,408	3,044	3,729
	Recurrent (other)	870	1,239	1,639	2,072	2,539
	Capital	417	594	785	993	1,216
	On-going Projects	1,684	11,155	10,081	10,081	-
	ESP Projects	76	108	142	180	221
Non-Formal	ESP Projects	692	818	863	912	963
Tertiary	Recurrent (teacher)	2,878	3,305	3,773	4,285	4,842
	Recurrent (other)	2,880	3,227	3,599	3,997	4,422
	Capital	2,609	2,924	3,261	3,621	4,006
	On-going Projects	3,200	6,604	6,604	-	-
	ESP Projects	303	342	384	430	480
Total		74,184	114,821	117,168	114,367	99,540

The next figure shows the average percentage share of different sub-sectors during the ESP implementation period. The point to be noted here is that GoB considers the pre-primary and primary sub-sector investments combined as the total investment for primary sub-sector. Hence, on an average (42 + 6) = 48 percent of the total education budget will be going to primary sub-sector during the ESP period. A point to be noted here is that Bangladesh has been maintaining a 95%+ Net Intake Ratio (NIR) over the last 4 years (BANBEIS, 2019).

Another point to be noted here is that the share of the different sub-sectors varies from one year to another throughout the ESP period. This is primarily because of the development projects already being implemented. Moreover, over the ESP period enrollments in different sub-sectors

do not follow the same growth trajectory. Percentage increase in higher-secondary sub-sector enrollment is higher between 2021 and 2025 compared to that of secondary sub-sector enrollment during the same period. Again, the percentage increase in the secondary sub-sector enrollment is higher between 2021 and 2025 compared to that of the primary sub-sector during the same period.

Figure 7.12: Average share (%) of different sub-sectors in total projected education budget during the ESP period



7.6 MAPPING THE FINANCING GAP

As shown in Table 7-4 education budget required to implement the ESP in FY 2021 is BDT 74,184crore, and this gradually increases over the ESP period and finally goes up to BDT 99,540crore. On an average, GoB will be investing BDT 104,016 crore each year for education during the ESP period.

To what extent GoB will be able to attain the education budget target, relies on size of the annual national budgets and the shares of that national budget going to education. Over the last five fiscal years GoB, on an average, has been allocating 13 percent of the national budget for education sector. It intends to **increase this share gradually up to 16 percent by the end of the ESP period (i.e. FY 2025) and the indicative growth aim is 20 percent by FY 2030**[8]. A key point to be noted here is that the size of the national budget will depend on the overall growth of Bangladesh economy.

Education budget projections can be done following the steps below:

[8] Share of education here refers to total budget allocated to the MoPME and MoE. Numerous other ministries also invest in education (directly and/or indirectly). If those investments are taken into account then the total share of education in the National Budget would be significantly higher.

Step 01: GDP current price for the FYs from 2022 to FY 2025 can be projected using an average nominal GDP growth rate[9].

Step 02: Size of national budget can be projected using the average of national budget to GDP.

Step 03: Size of the education budget can be projected using the share of national budget GoB intends to invest in education (the intention is to increase this share gradually to 16 percent by FY 2025).

The education budgets (for different FYs) projected following these steps are the allocations happening if the usual trends are followed. **Comparing these projected education budgets with education budgets required to implement the ESP (shown inTable 7-4)the financing gap can be determined**.

Table 7-5: Mapping the budgetary gap (in case high economic growth takes place)

	2021	2022	2023	2024	2025
GDP (Current Price) in crore BDT (13% nominal growth assumed)	3,171,800	3,585,670	4,053,544	4,582,468	5,180,409
Total National Budget in crore BDT (16% of GDP)	568,000	573,707	648,567	733,195	828,865
Share (%) of Education in National Budget	12%	13%	13%	14%	16%
Projected Education Budget (in crore BDT)	66,401	71,837	86,601	103,995	132,618
Required Education Budget(from table 7.4) in core BDT	74,184	114,821	117,168	114,367	99,540
Funding Gap (in crore BDT)	7,783	42,984	30,568	10,373	-33,078
Funding Gap (as % of projected education budget)	11.72%	59.84%	35.30%	9.97%	-24.94%

In Table 7-5a high growth of GDP (current price) is assumed (13 percent nominal growth).The size of the total national budget is projected accordingly. In that case, if share of education in the total national budget is increased gradually from 12 percent in FY 2021 to 16 percent in FY 2025, the projected education budget in FY 2025 stands to be BDT 132,618 crore. Comparing these projected education budgets with the required education budgets (shown inTable 7-4) the funding gap is determined. The calculations show that in FY2020-21, the projected education budget is BDT 7,783 crore less than the budget required to implement the ESP. In the next FY the funding gap further increases to BDT 42,984 crore. In the next two FYs, the gap narrows down and in the final year a budget surplus is projected[10]. To implement the ESP, on an average, GoB will have to increase the annual education budget by almost BDT 12,000 crore (average 18 percent increase over the annual projected education budgets).

[9] Nominal growth from FY 2020 to FY 2021 reported by Ministry of Finance, GoB is 13 percent.
[10] Further discussion about the funding gap is presented in the next sub-chapter.

As economic growth is external to education planning, this ESP has also considered alternative financial outcomes for lower economic growth. This is shown in Table 7-6projecting a lower growth of GDP (current price) at 12 percent nominal growth. Naturally, the funding gap further widens in this case. To implement the ESP, on an average, GoB will have to increase annual education budget in this scenario by over BDT 14,000 crore (average 21 percent increase over the annual projected education budgets).

Table 7-6: Mapping the budgetary gap (in case high low economic growth takes place)

	2021	2022	2023	2024	2025
GDP (Current Price) in crore BDT (12% nominal growth assumed)	3,171,800	3,547,271	3,967,189	4,436,817	4,962,038
Total National Budget in crore BDT (16% of GDP)	568,000	567,563	634,750	709,891	793,926
Share (%) of Education in National Budget	12%	13%	13%	14%	16%
Projected Education Budget (in crore BDT)	66,401	71,067	84,756	100,689	127,028
Required Education Budget(from table 7.4) in core BDT	74,184	114,821	117,168	114,367	99,540
Funding Gap (in crore BDT)	7,783	43,754	32,413	13,678	-27,488
Funding Gap (as % of projected education budget)	11.72%	61.57%	38.24%	13.58%	-21.64%

7.7 Explaining and Meeting the Financing Gap

Budget projections and the estimated financing gaps are derived using straight forward mathematical formulae. However, implementation of the ESP and allocating funds over a medium term is a complex process.

- Unit costs for higher education levels are higher naturally, and at the same time, increase in enrollments planned for the ESP period is significantly higher for post-primary education levels. Hence, instead of following a steady growth pattern, the funding gap varies up and down from year to year. Moreover, costs of on-going development projects are taken from the ADP directly without considering possibility of any adjustmentat this point. This has also contributed to variability, ups and downs, in the projections and the funding gaps.
- The negative funding gaps in FY 2025 indicate a budget surplus. This again is the outcome of simple mathematical projections of costs. Experience shows that significant adjustments of the fund allocations distributed across different years (over the ESP period) may be required. There will be a mid-term review of ESP implementation that will offer the opportunity to make necessary adjustments. The mathematical projections showing a budget surplus in the final year is not likely to be the case in practice. That is why it would be more appropriate to focus on the average annual funding gaps (which is over BDT 9,000 crore and over BDT 11,000 crore for high growth and low growth scenarios respectively).

- The average funding gap as percentage share of projected education budget (16 percent for high growth and 18 percent for low growth scenarios) still appears to be challenging. While the projected gaps are based on comprehensive analysis of available data, these still are estimations at aggregate levels. Further rationalization of the expenditure will be needed through further in-depth analysis and as annual action plans are prepared. For instance, the simulation model takes the costs of on-going projects (some of which are to continue up to 2024)as given and adds to these the costs of projects proposed in this ESP. There may be overlaps and possibility of adjustments as detailed plans and costs are worked out. Hence rationalizing the expenditures offers possibility of reducing budget gaps.
- In the previous chapters of this ESP as well as in the Results Framework ambitious targets are set against different indicators in accordance with the national aspirations. In case of low economic growth prospects and resource shortages, in spite of the good faith effort of Bangladesh government to increase education budgets, some targets may be stretched out beyond the five year period and shifted to the next five-year plan. It is possible also that in certain areas, such as TVET, and tertiary education expansion, where the workable strategies are still subject to further clarification and consensus building, implementation in the early years of ESP may be slower than anticipated. Mid-term evaluation of progress of ESP, as noted, will provide a chance to make budget adjustments, thus contribute to meeting gaps.

To sum up, it is possible that the simulation model cost estimation technique leads to overestimation of development and capital costs. As noted, ESP development and capital costs are estimated as additional to ongoing development project costs. Some of the objectives and targets in ongoing projects are likely to contribute to achieving ESP targets. Capital costs by definition have multiyear benefits and the investments are not incurred at a constant rate from year to year and in a similar ratio per student across the board. A 'mechanical' formula projection based on student and teacher numbers, in the absence of a better option, may yield an overestimate. Teacher costs, which are counted against all students, do vary for and within sub-sectors, and by the STR formula applied. It has not been possible to capture these granularities in the simulation model. An approach, therefore, to bridging the resource gap, as well as efficient and effective use of resources, would be to closely examine the variabilities in the sub-sector while preparing annual sub-sector action plans and by making adjustments following the midterm evaluation of ESP.

8. RESULTS FRAMEWORK AND MONITORING

Monitoring of the overall ESP implementation is an integral part of management of the ESP. Monitoring will be guided by the Results Framework (RF), primarily through the management and monitoring structures, coordinated at the central level through the implementation mechanism described in chapter 6. Monitoring and the RF will enable gauging improvements in key expected results in the areas of access and equity in education, quality and relevance of learning, and governance and management of the education system embracing transformative changes in the system in the light of SDG4 and as spelled out in this ESP.

The construction of the RF and its content is explained, and the results framework table is presented in this chapter. The risks, risk mitigation and creating the enabling conditions for implementing ESP are also presented. The Key Performance Indicators (KPIs), a summation of the outputs and targets derived from the RF, are also presented in this final chapter.

8.1 RESULTS FRAMEWORK

The results and monitoring framework is an essential part of the ESP and a vital tool for supporting the implementation of the ESP, informed by reliable data about progress, allowing necessary course correction in the implementation process and taking decisions based on credible evidence. A four-part results framework and monitoring frame has been constructed covering a) access and equity, b) quality and relevance, c) governance and management within sub-sectors, and d) across sector results monitoring. (See Annex 8.1)

Under a, b and c, which relate to the three sub-goals or pillars of the ESP, sub-sector targets and indicators are shown for the eight sub-sectors of pre-primary and primary education (combined), secondary education, higher secondary education, madrasahs, TVET, non-formal education, and tertiary education. In the fourth part under part d, cross-sector targets and indicators are shown for six areas – rethinking education workforce; response to climate change and emergencies including the COVID-19 pandemic; education implications of ICT, 21st century skills and the 4th Industrial Revolution; inclusive education priorities and strategies; assessment of learning and the system performance; and ESP implementation measures.

For each of the sub-sector and cross-sector ESP components, six vertical columns provide a descriptor of the relevant target, the related indicator, baseline value, 2025 target, the means of verification of progress and the lead responsible agency or agencies. A seventh final column mentions risk mitigation and creating enabling conditions (see below).

Attention is given to ensuring that the RF and monitoring indicators are consistent with the policy priorities and the planned programmes and activities. There will be continuous monitoring and reporting on the ESP's progress, challenges and lessons learned so as to inform necessary course correction, future planning and programming. This process is embedded in the monitoring approach and activities and is supported by robust EMIS at different levels in various program components as shown in the details of implementation arrangements in chapter 6.

M&E indicators in the RF are designed to be SMART (Specific, Measurable, Achievable, Relevant and Time-bound).Theachievement of the intended objectives can be determined by objectively verifiable means. The measures of outcomes and outputs are aligned with ESP strategies and targets.

The RF table shows baseline values and final year targets but not the year-by-year annual phasing. For the financial planning and costing discussion in chapter 7, projection of indicative annual phasing of the ESP financing has been made. A similar year-by-year projection could be shown in the RF, but the premise is that this may be a mechanical exercise at this point which would be more appropriately done as part of the annual action plan keeping in view the end-year targets, overall financial frame and updated monitoring data. A mid-term review of the ESP is also likely to suggest the need for adjusting the annual phasing of activities. Moreover, further work is needed during the first year of the ESP to determine some of the baseline values, as noted in the RF.

While all the target items in the RF attempt to capture the essential areas of activities related to the main outcomes and outputs of the ESP, additional items of activities are anticipated to be included, as appropriate, in the annual action plans for sub-sectors and cross-sectoral areas. In doing so, quantitative data will be disaggregated and monitored by gender and other disparity measures, such as geography and income quintiles, as appropriate.

8.2 MONITORING AND EVALUATION MECHANISM AND PROCESS

Monitoring and evaluation focusing on the Results Framework and the Key Performance Indicators will involve several tiers of actors and activities indicated in the implementation arrangements in chapter 6.

A critical marker of successful implementation of the ESP is effective mechanism and process of monitoring and evaluation, including third-party independent assessment, of ESP progress and performance. Various monitoring and evaluation activities have been proposed in respective sections and have been included in the *results framework* table under the heading of means of verification of progress. Functioning and improved EMIS, as planned for in subsectors, will provide the essential sources of data and information for monitoring, which will be complemented by commissioned third-party evaluation, studies and work under technical assistance, especially for the cross-sectoral areas.

The subsector working groups and cross-sector dedicated teams will have the major responsibility to plan, establish the process, assign responsibilities, and follow-up actions in respect of monitoring and evaluation. They will ensure that monitoring of ESP implementation in the subsector and cross-sector areas occurs effectively and the results are fed back into the decision-making and management process at different levels.

A key function of the working groups for sub-sectors will be to formulate annual work plans keeping in sight the final-year targets and outputs, ensuring required activities and pace of progress for sub-sectors at the national level, taking the results framework as the guide. It is anticipated that the experience of the first one to two years of the ESP will help refine the appropriate template and content of the annual work plan for sub-sectors and cross-sector areas, and their consolidation at the national level. The working groups will also guide the preparation of consolidated work plans at the district and upazila levels. The senior taskforce will review consolidated national work plan for ESP, help troubleshoot as needed and oversee progress. The M&E outputs, analyzed and digested in a policy relevant manner, will support the vital task of maintaining oversight of ESP implementation by the Senior Task Force.

The respective working groups with the guidance of the senior taskforce will ensure that the necessary steps are taken for annual monitoring, mid-term and end-term evaluation and various

third-party assessments. The working groups will receive and review the monitoring and evaluation results and will forward findings and make recommendations to the Senior Taskforce. An important annual task with the guidance of the Senior Task Force will be to consolidate and summarize the subsector and cross-sector M&E outputs and findings to facilitate overall assessment of ESP implementation and higher order management decisions by the Senior Task Force and the Steering Committee. This annual task may be undertaken by a team representing the working groups, assisted by experts, and reporting to the Senior Taskforce.

To sum up, the M&E process will draw on functioning EMIS, will comprise activities at different tiers from upazila to the national level, cover sub-sector and cross-sector areas focusing on RF items. These will be complemented by commissioned third-party evaluation and studies (such as tracer studies), and research reports. Subsector working groups and cross-sector teams will set the analytical frame for deriving management and policy-relevant conclusions from M&E findings and help identify higher order management and policy implications for decision-making. Annual and mid-term review will lead to coherence and consolidation of M&E results for better management and policy decisions.

8.3 Risk Analysis, Risk Mitigation and Creating Enabling Conditions

Goals and targets set for the ESP period may seem ambitious. However, a transformation of the education system in the coming decade and beyond demands the changes. The ESP is intended to lay the ground for the transformative change of the system. Considering the challenges discussed in the relevant sub-sectors, the calculus of potential risks are embedded in the RF and the monitoring and evaluation plans. The recommendations regarding capacity building extend to the human resources capacity to implement the M&E arrangements and institutional responsibilities with a chain of accountability indicated in the implementation structure and arrangement. (See chapter 6.)

The RF column on risk mitigation and enabling conditions shows key actions, decisions and policy facilitation that will make achieving the desired results possible. Conversely, the failure to take the necessary actions and/or to make the necessary decisions will put at risk the expected progress in ESP implementation. The identification of risks can be seen positively as an alert regarding the enabling conditions that have to be given attention and actions initiated to create the necessary conditions.

The items in column 7 labelled as risk mitigation and enabling conditions fall under the following categories:

- Need for high level political and policy support for the ESP and alignment of the ESP with national plans including the FYP.
- Decision and early action required regarding the implementation mechanism of the ESP, especially putting in place the leadership and guidance elements with the formation of the inter-ministerial steering committee, and the taskforce of senior officials and experts, various working groups and deployment of technical expert teams and establishing their work procedure.
- Budgetary and resource commitment has to be ensured, with an adequate resource envelop considering priorities and criteria as indicated in the ESP.
- Reliable, relevant, and timely data gathering, analysis and reporting have to be confirmed and decisions about course-correction in programmes have to be made on consideration of credible evidence.

- Priority to capacity building of personnel and system entities have to be given attention.
- Thoughtful and participatory approaches have to be adopted with a focus on the longer-term national objectives.

The overall implementation approach with continuous monitoring, strengthening of EMIS, mid-term evaluation and various third-party assessments are designed to sound an alert on risks and allow mitigating actions.

8.4 KEY PERFORMANCE INDICATORS (KPIS)

A limited number of key performance indicators (KPI), derived from the Results Framework and the overall ESP goal, sub-goals and outcomes, have been identified and are presented in Annex 8.2. The KPIs will help to highlight and prioritize the implementation tasks and responsibilities, as a guide to the implementing entities and for those with responsibility for oversight and guiding the overall progress of implementation. The KPI matrix has 14 key outcomes – 11 programme outcomes and 3 related to ESP management and implementation.

The 11 programme outcomes are the same as those shown in the Policy Matrix in chapter 2. The related key outputs and indicators are shown in the KPI table. These major outcomes, outputs and indicators have to be looked at together, which provide a meaningful summary description of the headline performance goals and related indicators of the ESP. The last column in the KPI table shows the direct links of the KPIs to the target items in the RF, identifying the concerned target items in the RF which will contribute to achieving the KPI. KPIs and the RF and the links between them together, therefore, constitute a powerful tool for tracking and assessing progress in ESP

ANNEX 1.1: BIBLIOGRAPHY

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ANNEX 1.2: VIRTUAL CONSULTATION MEETINGS ON ESP

Serial No.	Type of Consultation	Number	Participants
1	Education Local Consultative Group (ELCG) Small Working Group meetings (to discuss on structure of ESP, timeline for ESP, sharing process of ESP, including collecting inputs and feedback on zero draft along with elaborated policy matrix, first draft, second and final drafts of ESP)	4	48 (16 F)
2	Online sharing of ESP (10 July version) with broader ELCG members for collecting written feedback/comments	1	69 (10 F) 11 agencies provided written feedback
3	Online sharing of Results Framework to collect relevant information with support of relevant GO agencies (DPE, DTE, DME, BNFE and DSHE)	5	Written feedback collected on RF
4	Small group meetings with Government agencies under two education ministries for data and information collection for ESP and also to check the Results Framework for ESP (DPE, DTE, DME, DSHE, BNFE)	5	10 (2 F)
5	Sub-national level consultation workshops to collect feedback on 22 July draft of ESP (Sylhet, Khulna, Jessore, Cumilla)	4	304 (106 F)
6	National level consultation with teachers union	1	35 (1 F)
7	Key Informant Interviews conducted with policymakers, managers and experts(with appraisal mission members)	30	30 (2 F)
8	Focus Group Discussions (GO, ELCG, National Expert team members)(with appraisal mission members)	3	33 (8 F)
9	Technical meetings on costing and financing as well as alignment between ESP and ESPIG with World Bank	3	26 (4 F)
10	Meetings with high level officials	2	10
	Total	**48**	**565participants (149 female)**

ANNEX 1.3: STAKEHOLDERS' VIEWS AND EXPECTATIONS FROM ESP

As part of ESP preparation, Campaign for Popular Education (CAMPE) organized five virtual stakeholder'sconsultations on the Education Sector Plan (ESP) from 13 to 31 August, 2020. Considering the restriction on mobility and face-to-face meetings during the COVID-19 pandemic, online platforms were used for the consultations. Diverse stakeholders participated in the sessions and appreciated the opportunity to share their concerns and expectations.

Objectives

The primary objectives of the sessions were to (i) inform the relevant stakeholder of the process and progress of the ESP development; (ii) provide a platform to share the local context, opportunities, challenges, and recommendations; and (iii) facilitate an informed decision-making process.

Process

CAMPE and one of its member organizations co-hosted each consultation. Local-level participants were selected and contacted by the local organization in the selected districts. Participants from neighbouring districts also joined in each meeting. One dedicated consultation was organized for the representatives of teachers' Organizations.

The Deputy Commissioner of each host district was present as the Chief Guest. Additional Deputy Commissioner, District Education Officer (DEO), District Primary Education Officer (DPEO), Assistant Director BNFE, Social Welfare Officer, and other district-level concerned government officials also participated as Special Guest(s).

Dr. Manzoor Ahmed from the ESP National Expert Team chaired three of the sessions, and Local Level Officials chaired the other sessions. Rasheda K. Choudhury, Executive Director of CAMPE and Former Adviser to the Caretaker Government, joined all the sessions as Guest of Honour.

Shereen Akhter, Programme Officer of UNESCO Dhaka office, shared the background of ESP development and objectives of the sessions. Dr. Zia Us Sabur, National Expert,explained the process and progress of the ESP Development. Khondoker Shakhawat Ali, National Expert, offered observations and critical takeaway points from the consultations. K M Enamul Hoque, National Coordinator of the ASA of the EOL and Deputy Director of CAMPE moderated the discussions.

Participants

A total of 353 people, including 107 women, joined in the consultations, including concerned government officials, local education administration, teachers, parents, SMC representatives, civil society, journalists, and other stakeholders. Teachers from institutions of different types and levels joined. Besides, representatives of local Government, women movements, Teachers' Associations, and youth groups also joined the sessions. Stakeholders actively participated in the consultation and contributed through a lively open discussion by identifying the gaps and challenges and provided their suggestions for improvements based on local context and experience.

Summary of Key Points

General Comments

The participants expressed their satisfaction at the initiative for involving them in the consultation. They would like to see the draft of the outputs, preferably in Bangla, on the website of the Ministry of Primary and Mass Education (MoPME) and Ministry of Education (MoE) so that they can share their thoughts, opinion, and recommendations for the final product.

The Education Sector Analysis and the Education Sector Plan are innovative exercises in Bangladesh, which the participants welcomed. Generally, teachers are not much involved in the education sector planning process. Thus, the exception this time is highly appreciated.

Implementation of the key recommendations of the National Education Policy 2010 needs to get priority in the education sector planning. Besides, there is a need to have a balance between promoting TVET in general education, looking at education narrowly, and the purpose and philosophy of education.

The discussion covered sub-sectors, including pre-primary to tertiary, and all streams, including general, religious (Madrasah), and technical and vocational education and training. Besides, it highlighted importance of looking into the supply and quality of the education workforce; response to climate change and emergencies; ICT, 21st-century skills & 4th industrial revolution; inclusion priorities, and assessment of learning and system performance as cross-cutting issues.

The initial draft was guided by the overall vision, strategic thinking, holistic planning, evidence-based decisions which are achievable and sensitive to the context. It also considered the disparity issues. There is room for improvement in all these areas, as well as in quality and relevance, governance, and post-crisis new normal.

Equity and Access

In terms of access to education, Bangladesh has made significant progress. However, there are some pockets of exclusion due to geographic locations, household economic conditions, and personal traits. The geographic locations include *Char*, *Haor*, *Beels,* coastal belt, islands, hills and forest, and tea-gardens areas, urban slums, former enclaves, and remote, inaccessible areas, etc.At the same time, the household economic condition includes poor and the hard-core poor, women-headed households, and other people living in the bottom quintile of the income level, among others. The personal traits include the women and girls, persons with disabilities, ethnic minorities and indigenous groups, transgender, sex workers, domestic workers, orphans, and madrasah students, etc. Social safety net strategies and programmes need to ensure the right to education of these populations.

Due to the COVID-19 pandemic, learners faced trauma that has affected the mental health of the children. Besides, the academic calendar was disrupted due to school closure, and learning has been adversely affected. The television, internet-based interventions, mobile-based education, and the radio-based education programme are good, but a significant portion of the learners are yet to be reached. In addition, there are some ominous signals of increased early marriage of girls. COVID-19 may also lead to increased child labour. Back to school programmes needs to address the issues of the most marginalized and the ICT infrastructure needs to be accessible to them.

The social mobilization activities need to be strengthened for school re-opening and ensuring participation in education for the most marginalized. Following the school re-opening guidelines aligned with the international approach, protection of the learners, teacher's readiness, and revisiting classroom practices, and reforming assessment needed attention. Besides, parental and community engagement is critical to address the dropout factors and strengthening the back to school programmes.

There is a large variation among the educational institutions in both primary and secondary level. The ESP needs to consider how some of those variations could be reduced through systematic efforts by promoting equitable facilities among different types of schools. The non-MPO schools (not receiving government subvention) deserves special attention. General education, as well as non-formal education, needs to be given importance in the planning process for ensuring equitable access to quality education for all.

TVET programmes are increasingly popular, but most of them are based in cities and urban locations. The establishment of skills and livelihood training related centres at the community level can help the marginalised population to improve their socio-economic conditions through wage and self-employment. State initiative is required to expand the coverage by establishing new institutions in the remote and inaccessible areas, including *Haor* and tea gardens focusing on the need of the out-of-school children, youth, and adults. Besides, it is critical to modernizing the TVET delivery institutions by enhancing the capacity to conduct market skills demand assessment, developing marketable technical and vocational skills, and through providing job placement along with post-training support.

Although the Government is emphasizing lifelong learning, there are minimal provisions to support such learning. An initiative needs to be taken to promote adult literacy and lifelong learning for life and work through a nationwide network of community learning centres (CLCs) or some similar mechanism. In doing so, close cooperation among the Bureau of Non-Formal education, local government institutions, NGOs, and community organizations is critical.

The commercialization of education is considered as an obstacle to equitable access to quality education. It leads to disparity denying access to the poor. The Government needs to take early measures to combat such commercialisation by upgrading the education service in the mainstream public education institutions through reform of the curriculum and improving the teaching-learning process.

Education 2030 has recognised 12 years of publicly funded basic education as a state obligation. Aligned with the global commitments, expansion of government secondary schools in the rural area is critical for achieving the new vision. It will contribute to fostering the progress to fulfil vision 2041.

Quality and Relevance

There is ambiguity in the definition of the quality of education and relevance. The Government should consider some working definition of quality that provides a common understanding among all citizens of the country. The definition should link with the results in terms of developing value-driven citizens and enhance human capability and employability to meet the 21st-century skills and need for the fourth industrial revolutions. The quality of education needs to be relevant to the concept of whole child development, teaching-learning process, and assessment through a whole school development process.

Three key actors in education include students, teachers, and parents. There should be a common understanding of the quality of education among these three groups. Besides, the role of the head teacher as an academic leader and support by the local education officials and other stakeholders are also critical. There are issues related to classroom size (both space and teacher students ratio), contact hour, and interactive teaching-learning process to ensure individual learning. The National Students Assessment (NSA) and the LASI provide significant evidence of the low performance of the school education system. The policymakers need to develop specific plans based on the lessons learned from those assessments. Besides, the Government of Bangladesh needs to consider participation in large-scale international assessment and testing process for demonstrating quality comparability. It is necessary to examine the value and benefits of participating in the international student assessment and testing process.

The quality of education has a close relationship with the teacher's recruitment, deployment, and continuous professional development. The Education Sector plan should consider the pre-service teacher's education, attracting the brilliants in the teaching profession, and support the continued professional development and the career path of the teachers. Besides, there is a variation of the teacher's competency, pay, and perquisites of the teachers among different streams. Ensuring decent pay, career path, and reducing the gap among the streams are critical for ensuring the supply of qualified and motivated teachers in all educational institutions.

The Government of Bangladesh has considered pre-primary education as essential for school readiness. The duration of foundation training for pre-primary teachers needs to be increased, and refreshers courses should be strengthened. There are some issues related to the equivalency framework among different streams, particularly the general education curriculum, and the Madrasah curriculum, which should be aligned to bridge the gap.

The distribution of teachers by subject is an issue. Many schools are suffering a shortage of subject-based teachers. The ESP should indicate how these issues could be addressed while attaining a standard teacher-student ratio.

If all teachers and government officials enrol their children in the public institutions, that would create a stake in improving the system. There are increasing concerns about ethics and values education. The ESP needs to accord priority on how the school system promotes values and ethics among the youths.

Health, nutrition, and wellbeing of both teachers and students are critical for a healthy and child-friendly learning environment. Regular health screening of teachers and students needs to be strengthened. There should be an institutional linkage with the Upazila level hospitals and health services to screen the health and nutrition status of the learners and teachers regularly. Considering the benefits for learning improvement, the school meal programme needs to expand to all schools in a phased approach.

Despite some challenges of the distance learning system introduced after the school closing due to the COVID-19 pandemic, it was appreciated. There is a high demand for continuity of such a learning process. Some teachers consider those as a model class which could facilitate enhancing the teaching-learning process in remote locations and help teachers to use alternative teaching-learning modes.

Transparency and Governance

The National Education Policy 2010 provided a guideline on the governance of education. It was adopted about a decade ago before adopting the SDGs. It is necessary to revisit it based on new commitments, innovations in education and ICT, economic growth, and changes in the global and national context. Key recommendations of the National Education Policy 2010 need to be reflected in the education sector plan. Besides, accountability mechanisms, such as a permanent education commission, need to be considered. It would oversee the implementation of the NEP goals and provide an impetus to protecting the right to quality education for citizens and fulfilling the constitutional obligations.

The initiative to adopt a comprehensive education law seems to have come to a halt. The Education Sector Plan needs to emphasize expediting the process ofapproval of the draft Education Act, and its proper implementation. It is also critical that the education act ensures protecting the right to education, and combat commercialization of education.

Most of education development is geared to the needs of the capital and some big cities. The rural areas remain neglected. Their development should be the benchmark for education sector planning. There are regional variations in Bangladesh influenced by geography, local culture, communication, agricultural practices, industrialization, and business growth. Consequently, some areas are lagging compared to others. Context-specific access, equity, and quality measures need to be promoted by the ESP to address diversity and disparity.

The quality of non-state schools is a concern that is highly relevant to the governance of education. Government support and supervision under a common framework should be considered for them.

A clear guideline would be required for planning and management of post-pandemic school re-opening. The directives need to cover all education institutions irrespective of institution status as long as they follow the national curriculum.

As Bangladesh is heading towards the upper middle-income status, aid to education is declining. Increasedinvestment in education by raising domestic financing is required to reach the global benchmark of education financing towards4-6% of GDP or 15-20% of the national budget. In doing so,the capacity of the institutions also needs to be strengthened.

Other Issues

Online and distance learning programmes

The participants welcomed the education in emergency programme, particularly the introduction of TV programmes and other ICT based initiatives. Access to television and the internet has a shallow reach. Many learners are excluded from the service. There is a need to ensure ICT infrastructure, connectivity, and broadband access for all learners to maximize the benefits of online and distance learning facilities. Continuing complementary TV,-radio, internet, and mobile-based lessons, with teachers' skills development and institutional e-infrastructure development even after the pandemic is over, are essential. Besides, it is critical to rethink post-crisis 'new normal' in terms of mitigation, recovery, quality-equity focus with better use and integration of ICT for education.

Teachers' issues during the pandemic

There is diversity in the situation and status of teachers. Some teachers have received full pay during the pandemic, and some got partial compensation. Another group received a modest

incentive from the Government, while still others are deprived of any payment. Many teachers in non-state schools have been compelled to give up teaching and seek other occupations.

There are issues related to MPO and Non-MPO teachers that need to be addressed by the policy. Ensuring decent pay for all teachers is critical, and the ESP should highlight the issue. Special consideration should be given to the status of teachers in the education sector planning. Teachers' career development is critical for job satisfaction. The Continuous Professional Development (CPD) of teachers could be considered as an essential part of the initiative. The ESP should also consider providing incentives for teachers to offer school-based extra tutoring and mentoring of students. The Government could utilize the current school closure for increased access to training for the online teaching-learning process.

The ESP can provide emphasis on the development of a National Teacher Policy, which will provide strategic directions on all issues related to teachers, including new thinking about professional preparation of teachers, recruitment, CPD, career path, and promoting equity among teachers in different streams of education.

Issues related to school re-opening

A clear guideline would require for planning and management of school re-opening. It needs special attention to ensure health safety for students, teachers, and parents to re-open the schools. The decision to re-open the educational institutions in the 'new normal' situation after the pandemic needs to be taken in consultation with the teachers, parents, and the management committee. There is a shortage of information on the situation and the future course of action. It is necessary to take steps to fill the information gap for schools, teachers and parents. The Government needs to address the issue of increased child marriage and child labour risks due to COVID-19. To support the initiative, it is essential to revisit the curriculum and high-stake public examinations. Besides, The Government needs to rethink about the examination management and engage the teachers in the assessment/examination planning process.

Issues to consider in the Education Recovery Programme Planning

In developing the post-pandemic education recovery programme, importance needs to be given on general education, as well as non-formal education. It is necessary to create an integrated syllabus at the secondary level, particularly considering the new directives to incorporate vocational education at the secondary level. Besides, the madrasah education needs to be modernized.

While deciding to re-open the educational institutions in the 'new normal' situation, the education administration needs to consult with the teachers, parents, and the management committee. Besides, special attention is required to ensure health safety for students, teachers, and parents while re-opening the schools.

The Government needs to consider reducing the great disparity and variations in education delivery mechanisms and recognise state obligation for school level education. While rethinking the post-crisis 'new normal' in terms of mitigation, recovery, quality-equity, increased emphasis needs to be given on better use and integration of ICT for education along with teachers' capacity enhancement. Public allocation for education remains low in Bangladesh. There are health and economic recovery plans, but a comprehensive education recovery plan is absent. Government has an obligation to allocate necessary resources based on the needs and goals for the education sector.

ANNEX 2.1: ESP POLICY ELABORATION

Overarching Goal of ESP: Contribute to the achieving the SDG4 goal of equitable, accessible and quality education towards building a sustainable and prosperous society and promoting lifelong learning for all, in line with the objective of Bangladesh becoming a developed country by 2041.				
Sub-Goal 1. Access & Equity				
Outcome	1.1 All children complete education pre-primary education up to Grade 8 and substantial defined progress made in secondary and further education to reach SDG targets (especially SDG4.1 and 4.2) by 2030	1.2 Expansion of non-formal and skill development education within a life-long learning perspective with a view of uplifting quality of living of considerable percentage of out-of-school children and adults	1.3 Creating scope of further expansion and improvement of education opportunities in line with changing needs and increased resources	
Output	1.1.1 Access and equity focused programme components in place with objectives and targets for pre-primary, primary, secondary, higher secondary, TVET, NFE, Tertiary and ICT-based learning facilities across sectors	1.2.1 Affirmative strategies highlighted /specified for reaching & serving groups characterized by special needs, extreme poverty, disability, geographical, gender and ethnic disparity, as integrated into each sub-sector plan	1.3.1 Facilities expanded and improved, including ICT facilities and school facilities for higher secondary and tertiary, including for ICT use, are substantially expanded to accommodate increased enrolments	
Sub-Goal 2. Quality & Relevance				
Outcome	2.1. Learning outcomes improved comparable with global standards through competency-based curriculum and student centered teaching- learning process	2.2. Longer term initiatives planned based on new thinking about professional preparation and development of teachers and the education workforce through concurrent approach in degree colleges and universities	2.3 Improved and strengthened teacher professional development	2.4 Adequate and quality infrastructural facilities in educational institutions including use of ICT during normal times and in emergency periods significantly improved

Output	2.1.1 Consensus built on quality assurance principles, strategies and mechanisms for school education	2.2.1 Longer term teacher/education workforce development plan prepared	2.3.1 All teachers at all levels have appropriate professional qualifications, training and skills (including digital skills) and use them in teaching practice	2.4.1 Quality & relevance focused programme components initiated with objectives and targets for pre-primary, primary, secondary, higher secondary, TVET, NFE, Tertiary and ICT-based learning facilities across sectors;
	2.1.2 Curriculum and learning materials reform expanded		2.3.2 Sufficient numbers of professionally qualified, trained and skilled teachers and their continuing professional development ensured	2.4.2 Non-formal opportunities expanded to complement formal across sectors (lifelong learning)
	2.1.3 Learning assessment reform initiated and sustained			
Sub-Goal 3. Governance and System Management				
Outcome	3.1. Improved educational governance and decentralization, with administrative and financial authority and planning and management functions devolved to district and progressively to upazila and institution level	3.2. Sector-wide educational planning and monitoring capacity enhanced and sector coordination is more effective	3.3 Increased budget allocations with rationale and criteria applied for quality, equity, inclusion; improved capacity for effective and efficient resource utilization	3.4. Strengthened education legislative and regulatory framework
Output	3.1.1 programme components focused on decentralization, capacity building, education workforce development and management, and resource adequacy /management	3.2.1 Strengthening and capacity building for management support, supervision, inspection for sub-sectors	3.3.1 Financial adequacy ensured across sectors and for sub-sectors, including criteria for allocations for sub-sectors established, and result-based financial management introduced	3.4.1 A statutory permanent education commission set up for ensure the comprehensive education law is adapted to support policy objectives

	3.1.2 Across sub-sectors, governance improvement and decentralization focused longer term master plan initiated, with division, district, upazila and institution level devolution	3.2.2 Coordinated and integrated K-12 school planning, management, and equity-quality-inclusion improvement	3.3.2 Resources mobilized including public and non-public resources to serve adequately the equity, quality and inclusion principles	3.4.2 Comprehensive Education Law and permanent education policy oversight body set up
	3.1.3 Personnel management capacities strengthened for establishing and applying performance standards linking with incentives			
Activities	Elaborated in chapter 3			
M&E Indicators with KPIs	Elaborated in the M&E Framework			

ANNEX 5.1: KEY ELEMENTS ON GOVERNANCE AND MANAGEMENT IN THE NATIONAL EDUCATION POLICY 2010

In the foreword of the Education Policy 2010, Prime Minister Sheikh Hasina wrote, "Acquiring the knowledge of modern science and technology, we will build the "Sonar Bangla" (meaning in English Golden Bengal) that the Father of the Nation dreamed of. In 2021, we will celebrate the golden jubilee of liberation holding the head high in the world, and thus honor the blood sacrifice of the three million martyrs" (MoE, 2010).

In the preface of the Education Policy 2010, the then Minister of Education Nurul Islam Nahid wrote, "Education policy is a dynamic matter… The practical experience of its implementation and the ongoing progress in knowledge, science and technology and their application will continue to enrich the education policy" (MoE, 2010).With a decade's hindsight it can be said that it is time to revisit the national policy to ensure that the expectations of the Prime Minister are realized. And it is necessary to examine how the policy needs to be "enriched," especially in respect of the education governance and management elements of the policy.

Chapter 27 of NEP 2010 is about education governance. It spells out the purpose, objectives and strategies of education governance. It emphasizes strongly that effective governance and management are the key to implementing the policy and realizing improvement of quality progressively. The policy envisages a modernized education governance and management system that is free of corruption, competent, dynamic, accountable, transparent and result focused. It is worth recalling at some length the objectives and strategies listed in the policy.

The objectives of educational management are listed in the Policy as:

- To enable the education system to contribute to building a knowledge-based society and to create new knowledge necessary for nation's progress,
- To ensure at every stage of education governance accountability, dynamism and transparency in order to make governance efficient and free of corruption,
- To improve the quality of education by infusing in the administration of every institution transparency, accountability and dynamism through effective governance,
- To extend equitable and quality education services to every part of the country and for all people.
- To produce the human resources equipped with knowledge and skills necessary for the country's progress.

The key strategies indicated to achieve the objectives, in summary, were to:

- Take steps to consolidate various laws, regulations, and government orders into a comprehensive education law in the light of the policy.
- Establish a permanent, statutory and autonomous national education commission, which will advise the Ministry of Education, other ministries concerned with education and the University Grants Commission. Its responsibilities will include overseeing progress in policy implementation and presenting to the parliament and the nation an annual report in this regard. It will also make recommendations as needed about timely modification and change in the policy.

- Establish for non-government institutions receiving government financial assistance a teacher recruitment and selection commission like the body for government teachers to ensure proper teacher selection and deployment. National Teacher Registration and Certification Authority (NTRCA) for registration and certification of teachers will be discontinued.
- Non-government teachers under the MPO roll will be subject to transfer among institutions and will be required to attend regular subject-based training.
- An accreditation council will be established to assess and help improve academic standards of colleges and higher education institutions.
- An Office of Chief Inspector will be established to supervise and assess performance of institutions at the secondary level and to present annual reports to the parliament and to the public. The existing Directorate of Inspection and Audit in the Ministry of Education will be concerned with financial inspection.
- A separate higher education and research division and a madrasah education division will be established in the Ministry of Education.
- Other strategies specific to different stages of education included:
    - Comprehensive decentralization of primary education management with greater authority and responsibility for the school managing committee; and formation of parents-teachers association
    - Devolution of secondary education governance to divisional, district and upazila levels with greater authority and responsibility to managing committees of institutions
    - Equitable distribution of government institutions at secondary and higher levels among upazilas
    - UGC to be strengthened in line with its responsibilities for coordination and leadership in higher education.
    - UGC to be responsible for reviewing and supervising activities and scope of work of all public and private universities and assessing matters relating to quality of education.
    - Universities to plan and carry out their development with the approval of UGC. Any inconsistency between laws regulating UGC and the University Acts is to be reconciled and amended to enhance transparency and accountability in university management.
    - The National University functions, in view of the vast scope of its responsibility, are to be decentralized to the divisional level with substantial autonomy at this level. UGC will take urgent steps in this respect.
      [MoE, National Education Policy 2010, Ch. 27, pp. 62-66]

Important and relevant provisions regarding governance and management also have been made in Ch. 28 titled as "Some Special Steps for All Stages of Education." These include:

- All non-government institutions of education irrespective of stages will be registered with education authorities fulfilling specified education provisions standards and will be required to submit their financial statements to the authorities.
- Necessary steps will be taken to prevent dishonest people misappropriating government grant funds through fake claims in the name of non-government institutions.

- Stern measures will be taken against partisan political interference vitiating academic atmosphere in institutions.
- Code of conduct for students and teachers will be developed and applied in all institutions.
- A repository of updated and comprehensive educational data will be developed and maintained by BANBEIS; its capacity and role will be strengthened for this purpose.
- Coordination of work and responsibilities among different stages of education and among concerned ministries will be ensured.
  (MoE, National Education Policy 2010, Ch. 28, pp. 67-69)

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ANNEX 5.2: KEY ELEMENTS ON GOVERNANCE AND MANAGEMENT IN THE FOURTH PRIMARY EDUCATION DEVELOPMENT PROGRAMME (PEDP4)

PEDP4 is the national programme for primary education development for the period 2018-23. The main objective of PEDP4 is to provide quality primary education for all children of the country from pre-primary up to grade 5 through an inclusive and equitable system. One of the three specific objectives, apart from improving the quality of teaching-learning and supporting participation of all children in quality education, is to: "Ensure the strong governance, adequate and equitable financing and good management of the primary education system so as to enable the provision of quality education that is efficient, inclusive and equitable." (DPE, 2018).

The three major components of quality, participation and governance and management include 21 sub-components, five of which are for "Management, Governance and Finance." These governance-related sub-components are noted below:

- Sub-component 3.1: Data systems for decision-making: Its objective is to improve decision-making through strengthened information systems, monitoring, reporting and evaluation. Key elements in it were making an E-monitoring system functional in upazilas, producing and printing the Annual Primary School Census Report (ASPC) and the Annual Sector Performance Report (ASPR), and primary school mapping through GIS and remote sensing.
- Sub-component 3.2: Institutional strengthening: The objective is stated to strengthen the DPE and field education offices to manage and administer primary education system effectively through decentralization. But the actions proposed were mainly at the central level –supporting the Strategic Development Plan of the National Academy of Primary Education (NAPE); establishing the programme Support Team (PST) with recruitment of consultants, and procurement of vehicles and equipment for DPE and some field offices.
- Sub-component 3.3: Strengthened UPEPs and SLIPs: It's aim is to strengthen school- and upazila-based management and accountability. The main activity is to provide School Level Improvement Plan (SLIP) and Upazila Primary Education Planning (UPEP) grants. Grants were to be made for 65 thousand primary schools up to BDT 50,000 each in a year and a small planning grant to 50 Upazilas.
- Sub-component 3.4: Strengthened budgets: The objective is to make primary education budgets and expenditures used "strategically and effectively" aligning these with the medium-term budgetary framework of the government.
- Sub-component 3.5: Procurement and financial management: The objective of this sub-component is to ensure maximum use of the country financial and procurement systems and strengthening fiduciary arrangements. About ten people at headquarters are to be trained on e-procurement.

ANNEX 5.3: KEY ELEMENTS ON GOVERNANCE AND MANAGEMENT IN THE SECONDARY EDUCATION DEVELOPMENT PROGRAM (SEDP)

SEDP is intended to support general education in grades 6-12for the period 2018-2022, serving more than 12 million students and 357,000 teachers in 20,300 general schools, 9,400 madrasahs, and 1,190 general schools with SSC vocational stream programmes. SEDP excludes post-grade12 education, and technical and vocational education and training under the Directorate of Technical Education (DTE) and Bangladesh Technical Education Board (BTEB). SEDP aims at increased grade 12 completion by students, including those from disadvantaged groups. The programme is organised around three results: a. Improved **quality** in teaching and learning; curriculum, learning materials and examinations, and use of ICT in education; b. Increased **quantity** in student access, participation and retention; and carefully-planned infrastructure construction and renovation; and c. Increased **efficiency** through effective, decentralised management; systematic programme monitoring; and timely resolution of key policy issues (DSHE, 2018).Result Area 3 in SEDP for strengthened governance, management, and planning comprises five sub-results, as given below:

Sub-result area 3.1: Strengthened decentralized education management. Currently DSHE's capacity at the central level is fully absorbed by administrative tasks, leaving little space for programme activities, which are currently undertaken through stand-alone projects. Some progress has been made in decentralization by appointing an Upazila Secondary Education Officer and administration of MPO at Zila Education Office level. Challenges remain including limited scope of decentralization, incomplete financial and MPO authority delegation to Zilla Education Offices, and more than one thousand posts at field-level offices yet to be regularized.

ANNEX 6.1: SUB-SECTORAL IMPLEMENTATION ARRANGEMENTS

There are two ministries that oversee the education sector, namely the Ministry of Primary and Mass Education (MoPME) and the Ministry of Education (MoE). The current implementation arrangements for each of the sub-sectors under the two ministries are described below.

Ministry of Primary and Mass Education

The Ministry of Primary and Mass Education was set up as a Division of the Ministry of Education and then as a separate ministry in 1992 as part of Bangladesh's initiative to implement the Education for All (EFA) agenda. MoPME is responsible for the formulation of policies and the general oversight of pre-primary education, primary education, non-formal education and mass education. The term "mass education" generally refers to all types of education which is delivered outside the formal education system, now more commonly known as non-formal education.

PRE-PRIMARY AND PRIMARY EDUCATION

The overall responsibility for the oversight of formal pre-primary and primary education lies with MoPME. The Directorate of Primary Education (DPE) is the main agency responsible for the management of primary schools, including the pre-primary classes. DPE works through its subordinate offices in the district and upazila levels. Responsibilities include planning, coordinating and implementation of the sub-sector plan; recruitment, posting, and transfer of teachers and other staff; arranging in-service training of teachers; distribution of free textbooks; and supervision of schools. The responsibility of school construction, repair and supply of school furniture belongs to DPE but is executed through the Local Government Engineering Department (LGED). The National Curriculum and Textbook Board (NCTB), which operates under the Ministry of Education, is responsible for the development of the curriculum and the production of textbooks. The National Academy for Primary Education (NAPE) and about 60 Primary Training Institutes (PTIs) are responsible for the initial training of primary teachers after their recruitment. NAPE is also responsible for the initial training and CPD of education officers at the district and upazila levels. Upazila Resource Centers (URCs) are the venues, and in some cases the providers, of continuous professional development (CPD) courses for teachers.

Although MoPME and DPE are responsible for the institutions which the majority of primary students attend, there are other providers of primary education as well. MoPME/DPE managed six types of schools, namely government primary schools (GPS), newly nationalized primary schools (NNPS), PTI experimental schools, (iv) community schools and two types of non-formal schools. The non-formal primary schools which are under DPE are the 'ananda schools' operated by the Reaching Out of School Children (ROSC) Project and 'ShishuKalyan' (child welfare) schools. The schools directly managed by DPE account for about 53% of the primary schools in the country with about 75% of the country's primary phase students enrolled. The Ministry of Education (MoE) is responsible for 3 types of institutions with primary phase students, namely high madrasah attached Ebtedayees, high school attached primary sections and Ebtedayee of formal primary schools and madrasahs. These account for about 10% of schools and madrasahs enrolling primary level students. The Ministry of Commerce (MoC) and other government authorities are responsible for two types of schools, namely private kindergarten (KG) schools and tea garden schools. The NGO Bureau oversees 3 types of primary level institutions, namely BRAC schools, other NGO operated schools and other NGO learning centers that account for over

10% of primary level institutions. Other authorities, including the Ministry of Social Welfare (MoSW), manage non-aligned institutes which also enroll primary level students. (DPE, 2018) Also, the Ministry of Chittagong Hill Tracts Affairs (MoCHTA) runs two-year ECD/PPE programmes in the three hills districts through a network of 4,000 para centers. In the Chittagong Hill Districts (CHT), education is a transferred subject to the Hill District Councils (HDCs) as a part of the special governance arrangements in the three CHT districts.

Pre-primary classes within government and government financed schools are part of DPE's overall primary education system. There are many other pre-primary and ECD centers operated by various organizations.

NON-FORMAL EDUCATION

The Bureau of Non-formal Education (BNFE), under MoPME, is the main government agency for the management of non-formal education, including second chance education for school aged children. In addition a number of other government agencies carry out publicly funded non-formal education interventions across the country, including the Directorate of Youth Development (DYD) under the Ministry of Youth and Sports (MoYS), the Department of Social Services (DSS), and agencies under the Ministry of Labor and Employment (MoLE), the Ministry of Industries (MoInd), the Ministry of Agriculture (MoA), the Ministry of Women and Children Affairs (MoWCA), and the Ministry of Science and Technology (MoST), either directly or by supporting non-government bodies, such as the Bangladesh Computer Council (BCC).

MINISTRY OF EDUCATION

The Ministry of Education is responsible for the formulation of policies and the general oversight of secondary education, higher secondary education, tertiary education, madrasah education and TVET. MoE is bifurcated into two divisions. The Secondary and Higher Education Division (SHED) oversees secondary education, higher secondary education and higher education. The Technical and Madrasah Education Division (TMED) oversees madrasah education and TVET.

SECONDARY AND HIGHER SECONDARY EDUCATION

Secondary education and higher secondary education are managed by the Directorate of Secondary and Higher Education (DSHE).All of Bangladesh's administrative divisions have their own Boards of Intermediate and Secondary Education (BISE) which develop, organize, and supervise the Secondary School Certificate (SSC) and Higher Secondary Certificate (HSC) examinations. The National Curriculum and Textbook Board (NCTB) operates under MoE but is responsible for the curriculum and textbooks for all of school education from pre-primary through grade 12. The Bangladesh Bureau of Educational Information and Statistics (BANBEIS) is responsible for collecting and analyzing data for secondary and higher secondary education as well as for other sub-sectors.

The National Academy for Educational Management (NAEM) is a training academy under MoE. The Academy provides training to the heads of the educational institutions and secondary and higher secondary education officials on education management, educational research and educational planning. NAEM also provides foundation training to the newly recruited Education Cadre Officers of the Bangladesh Civil Service (BCS).

There are 14 government Teacher Training Colleges (TTCs) located across the country as well as a number of private TTCs. The TTCs provide a one year post-graduate BEd degree as pre-service

or in-service for teachers in secondary and higher secondary schools. Government TTCs are under the dual administration of the National University (NU) and DSHE. NU is responsible for the academic aspects, including curriculum, examinations and monitoring. DSHE is responsible for administrative aspects, including appointments and transfers of staff and monitoring of TTCs. Bangladesh Open University (BoU) and some of the government universities, including the University of Dhaka, also offer graduate and post-graduate level degrees in teacher education. Teacher education for higher secondary is provided through the same institutes as for secondary education as well as through five government Higher Secondary Teacher Training Institutes (HSTTI).The Non-Government Teachers' Registration and Certification Authority (NTRCA) examines and registers secondary teachers, including teachers in madrasahs, who hold a BEd or C-in-Ed qualification.

MADRASAH EDUCATION

As part of MoE, the Technical and Madrasah Education Division (TMED) has been mandated to provide critical governance inputs for madrasah education that include the creation of skilled human resources through providing coordinated technical, vocational, science and technology-based education and training. A separate Directorate of Madrasah Education (DME) has been established to modernize madrasah education management.

DME is responsible for the management of the Aliya madrasahs. This system runs parallel to mainstream general education and receives government financial support. Aliya madrasahs have their own curriculum and syllabus which includes the same subjects as the general stream as well as subjects devoted to the Islamic religion. Textbooks are prepared by the Bangladesh Madrasah Education Board (BMEB) which also conducts the public examinations equivalent to those for general education. The Islamic Arabic University, as the affiliating body for madrasah education, has the task of conducting academic supervision, examinations, certification and overall activities at the Kamil and Fazil level of madrasah education. The BMEB is responsible for the organization, regulation, supervision, control and development and improvement of Dakhil, Alim, Fazil and Kamil level public examinations and institutions. There is only one in-service teacher training facility for madrasah teachers, the Bangladesh Madrasah Teacher Training Institute (BMTTI), which conducts short in-service training for Aliya madrasah teachers and principals.

The following is a brief summary of the critical factors that should guide future improvements of the madrasah education implementation arrangements:

- **Institutional capacity building:** While there are institutions and departments in the implementation structure, they need substantial capacity building both in terms of physical and financial resourcing but also necessary human resource development measures need to be taken to ensure that institutional mandates could be implemented effectively and efficiently.
- **Improvement of teaching-learning:** Both quantitative and qualitative dimensions need to be addressed to ensure that the quality of teaching and learning improves with consequent improvements in the learning outcomes. This cannot be achieved through only one institute for the large number of teachers for the entire madrasah system.
- **Provision of adequate infrastructural facilities:** The infrastructure facilities in the general education system have improved but still have not reached the expected standard. The madrasah infrastructural facilities are even poorer and this makes the carrying out of the teaching-learning process effectively rather problematic. Therefore, a major resource commitment is needed to address the situation.

- **Linking madrasahs with TVET:** One of the central challenges of madrasah education is its disconnect with the world of work. Bringing madrasah and technical education together under one division therefore could be considered as a prudent strategic choice. This opportunity of creating linkages between madrasah education and TVET should be followed up through appropriate actions.

Qawmi madrasahs are operated outside the government system and regulations. They are funded mainly by donations from members of the local communities and national and international philanthropy. The Qawmi madrasah system is a religiously and politically sensitive area. The government should enter into dialogue with the current Qawmi madrasah leadership to explore ways and means to better integrate Qawmi madrasahs with mainstream general education. As a first step the government could consider rewarding the Qawmi madrasahs for taking steps voluntarily to make their current curriculum a step closer to general education.

TECHNICAL AND VOCATIONAL EDUCATION

Technical and vocational education is a complex system with considerable diversity within the system. The government is keen to increase the participation in TVET and to improve the employability of graduates. Technical and Madrasah Education Division (TMED), as part of MoE, is responsible for technical and vocational education as well as madrasah education. TVET is also supported by the Bangladesh Technical Education Board (BTEB) and the Directorate of Technical Education (DTE). Curriculum development, review and implementation, and assessment and examinations are managed by BTEB. Selected short duration skills development programmes, mostly supported by grants and loans from multi-lateral and bi-lateral agencies, are mainly managed by DTE. BTEP also manages selected short courses under the National and Technical Qualification Framework (NTVQF) including the Recognition of Prior Learning (RPL).

A major task is ensuring that courses and the technology are selected based on national needs, considering industry and other domestic needs. As Bangladesh has a strategic advantage of surplus labor, catering to the needs of the overseas market is also critical. A systematic effort is required to assess the human resource needs of the domestic market and the international market on a rolling basis. Linking it with the school to work information base is critical. In this regard, job classification and standard-setting are crucial.

The National Skills Development Authority (NSDA) has been recently created by upgrading the National Skills Development Council (NSDC). There are 13 Industry Skills Councils (ISC) were formed by the government to support the NSDA for providing strategic directions. These ISCs could be the key sources to identify future skills needs and identify the future needs of the skilled human resources to meet industry needs. The Integrated TVET Action Plan provides a set of recommendations to improve the policy environment, create new projects, improve industry-TVET institutional linkages, enhance enrolment, improve and upgrade the curriculum, introduce new and emerging courses and enhance job placement. It has an emphasis on the engagement of and collaboration with experts, professional bodies, entrepreneurs, NGOs, Civil Society Organizations (CSO), development partners and other stakeholders as an integral part of implementation of the TVET sub-sector related plans.

TVET programmes are diverse in terms of trades, courses, academic exercises, laboratory work, workshop practices, apprenticeships and sequential higher levels courses. Some of the institutions are also linked with overseas certification authorities for global compatibilities. The five major types of institutions which are providing TVET and skills development include public institutions under different ministries, private institutions that receive some form of government

subsidy, private commercial training institutions, not-for-profit institutions and industry-based institutions including apprenticeships.

Skills development is one of the key interventions linking with TVET. Over 20 ministries and divisions are linked with this programme. The data management of TVET and skills development programmes is a big challenge. A part of the data is managed by BTEB and part by DTE. BANBEIS collects data from formal education institutions which have obtained an Education Institution Number (EIN). The Ministry Expatriates Welfare and Overseas Employment (MoEWOE) manages the data related do the skills profiles of youths intending to work abroad. Various NGOs operate different integrated programmes linking with the general education and skills development programmes for the marginalized populations.

Of the 6,865 TVET institutions across the country, only 866 institutions (13%) are managed by the government and the remaining 5,999 are managed by private actors. There are 439 Polytechnic (Diploma) institution. In addition, there are about 2,653 Vocational Training Institutions (VTI) which provide basic trade courses aligned with different NTVQF levels.

To boost the quality of TVET technical assistance (TA) support will be required to enhance TVET infrastructure for increasing access, equity, quality and relevance and also to improve TVET management including the governance structure. TVET needs to be supported by a robust results-based monitoring system and formula-based financing to reach the most marginalized and to ensure the quality of TVET in Bangladesh.

TERTIARY EDUCATION

The University Grants Commission (UGC) is responsible for overseeing all universities (public and private) in the country. However, different public universities in Bangladesh are governed by different acts. Moreover, the existing laws and acts of the universities lack uniformity and cohesion (UGC, 2018). For example, the four major public universities (Dhaka University, Rajshahi University, Chittagong University, and Jahangirnagar University) are governed by four different orders/acts. The same is true for each newly created public university. There are many points of difference among these orders/acts, and as a result there is confusion regarding the governance structure of the institutions, the operational modalities of senates and syndicates, and the rules on recruitment and promotion of teachers and staff.

The Private University Act 2010, which governs private universities in Bangladesh, also requires amendment because there are ambiguities regarding the representation of different stakeholders (including the government itself) in the universities' Board of Trustees. Smooth implementation of programmes is dependent on legislative changes so that governance and accountability in tertiary education in Bangladesh are improved.

The National University (NU) has a pivotal role in tertiary education in the country through its oversight of over three thousand affiliated colleges with over one million students. The NU is also in need of restructuring to attain the desired results. At the moment, National University activities are largely centralized with a few minor operational functions left to regional centers across the country. The role of the regional centers is currently limited to ensuring proper academic and administrative functioning of the colleges and managing examinations. However, to enhance efficiency, the regional centers must be invested with further responsibilities, including the training of college teachers. While NU is in control of academic and examination related matters of colleges, DSHE under SHED of MoEis in charge ofthe recruitment, promotion and placement of teachers. NU and its regional centers need to be given further autonomy regarding these matters.

With a view to reducing pressure on NU, a process has been initiated of de-affiliating some colleges from NU and re-affiliating them with three major public universities, namely Dhaka University, Rajshahi University and Chittagong University. While the intention may be noble, but this somewhat ad-hoc initiative is most likely to exert additional pressure on these public universities which are already under pressure due to a lack of logistics and human resources.

In alignment with the NEP 2010, the government is trying to modernize and update the curricula of tertiary level madrasah education streams (Aliya and Qawmi). However, dealing with the Qawmi madrasahs is likely to be very challenging as these institutions prefer remaining independent of the ministries. While through a recent (April 2017) gazette order of MoE, the government has declared Dawrah-e-Hadith certificates provided by Qawmi madrasahs to be equivalent to a mainstream post-graduate degree, there remain significant ambiguities concerning tertiary education in Qawmi madrasahs. For example, the Qawmi stream is yet to award lower degrees, i.e. one's equivalent to mainstream graduation or higher secondary education certificates.

ANNEX 8.1: RESULTS AND MONITORING FRAMEWORK

A. Access and Equity

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
A1. Pre-primary and primary education						
1. PPE enrollment	% of grade 1 student with PPE (Total, Female, Male)	Total 94% % Boys 92% Girls 96% (2018)	100% 100% 100%	DPE EMIS MICS BANBEIS data	DPE	Dedicated classroom and teacher for PPE in every school; EMIS captures data adequately
2. PPE 4+ age piloting	% of 4+ in PPE. #of schools in piloting	0 0	>20% Approx. 2,000 schools	DPE EMIS BANBEIS	DPE	Planning & developmentdone in time and piloting initiated
3. Net enrollment at primary level	% of 6-10 population in pry. School (Total, male, female)	98% Boys and girls (2019)	100%	DPE EMIS. MICS BANBEIS data	DPE, BBS	EMIS provides quality data; reconciled with household data (MICS); effective inclusion measures
4. Schools equipped with adequate classrooms and facilities	% of primary schools with adequate classrooms, teachers' and HTs' room and edtech provision	#\% in GPS #\% in NGPS (To be determined)	100% of GPS 50% of NGPS	DPE EMIS. BANBEIS data	DPE	Criteria of adequacy set; Adequate budget allocation ensured
5. Schools with adequate safe and healthy environment	% of primary schools with age/gender appropriate wash blocks, playground & boundary wall	#\% in GPS #\% in NGPS (To be determined)	100% of GPS 50% of NGPS	DPE EMIS. BANBEIS data	MoPME/DPE	Criteria set; Adequate budget allocation ensured

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
6. Schools with access and inclusion plan for children with disabilities and other special needs	% of Schools with ramp. appropriate classroom space; Trained teachers on disabilities; other inclusion standards	% Schools with access and inclusion plan for children with disabilities and other special needs (To be determined)	70 % Schools with access and inclusion plan for children applied	DPE EMIS. MICS BANBEIS data	MoPME DPE	Stakeholders involved in elaborating inclusion plan. Adequate budget allocation ensured
7. Schools with adequate facilities maintenance budget	Proportions of institutions with regular maintenance budget	% of schools with adequatemaintenance budget (to be determined)	100% of Schools having maintenance budget	DPE EMIS. BANBEIS data	MoPME/DPE	Adequate budget, appropriate guidelines & criteria for government and non-government schools developed
A2. Secondary Education						
8. Net enrolment at lower secondary (6-8)	% of age group in grades 6-8 (total, female, male)	59% all 63% Girls 55% Boys (2019)	80% 80% 80%	DSHE EMIS MICS BANBEIS data	MOE / SHED	Quality data captured and reported
9. Net enrolment grades 9-10 (total, female, male)	% of age group in grades 9-10 (total, female, male)	37% all 40% girls 37% boys (2019)	70% 70% 70%	DSHE MICS BANBEIS data	MOE / SHED	Quality data captured and reported
10. Schools equipped with adequate classrooms and facilities	% of secondary schools with teachers' and HTs' room and edtech provision	% of schools with adequate classrooms and facilities TBD	70% of schools with adequate classroom & facilities	DSHE BANBEIS data	MOE / SHED	Adequate budget with guidelines and criteria for facilities ensured
11. Schools with adequate safe and healthy environment	% of secondary schools with age/gender appropriate wash-blocks, playground & boundary wall	% of schools with safe and healthy TBD environment	70% of schools equipped with adequate classroom, facilities	DSHE BANBEIS data	MOE / SHED	Adequate budget with guidelines and criteria for facilities ensured
12.	% of schools with regular	% Schools with regular	70% Schools with regular	DSHE BANBEIS	MOE/ SHED	Adequate budget ensured with

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
Schools and educational institutions with adequate facilities maintenance budget	maintenance budget. School building Playground ICT equipment	maintenanc e budget TBD	maintenance budget		School managem ent	guidelines for both govt. and non-govt. schools developed
A3. Higher Secondary						
13. Net enrolment (Total, male, female)	% of age group in grades 11-12 (total, female, male)	26% 27% 26% (2019)	50% 50% 50%	DSHE EMIS MICS BANBEIS data	MOE/ SHED	Annual phasing to reach target, by streams. Data quality ensured
14. Institutions equipped with adequate classrooms and facilities	% of higher secondary institutions with adequate classrooms, offices, labs and IT provision	% schools with adequate facilities TBD	70% of schools with adequate facilities	DSHE BANBEIS data	MOE/ SHED	Adequate budget provided and guidelines set
15. Schools with safe and healthy environment	% higher secondary institutions with age/gender appropriate wash blocks, playground & boundary wall	% institutio ns meeting criteria TBD	70% of institution s meeting criteria	DSHE BANBEIS data	MOE/ SHED	Adequate budget with guidelines provided
16. Schools/ colleges with adequate facilities maintenance budget	% schools with regular budget for building playground ICT equipment etc. maintenance;	% of Schools having maintena nce budget TBD	70% Schools with adequate maintenanc e budget	DSHE BANBEIS data	MOE/ SHED	Adequate budget with guidelines for govt. and non-govt. institutions provided
A4. Madrasah						
17. Enrollment in Alia stream aiming for consolidation and quality, improvement	# enrolled in ibtidayee, dakhil, alim, kamil, tertiary levels, (Total, male, female)	4.8 million {Breakdo wn to be assessed)	5,000,000 (Approx, current breakdown ,male-female parity kept)	BMEB BANBEIS	TMED BMEB	TMED and DME plan and guide effectively madrasah system consolidation with quality improvement

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
18. Rationalized distribution of govt. supported madrasahs at different levels (ibtedayi, dakhil/alim, tertiary) stages	Numbers – Independent ibtedayi, Alia (mixed levels), Tertiary (Fazil+)	Alia 9,303. MPO-supported Ibtidayee 1500	Alia. 9,500 Ibtidayi Current level	BMEB EMIS BANBEIS	TMED BMEB	MOE policy decision for madrasah system consolidation strategy with quality improvement decided and supported;
19. Comprehensive improvement of physical facilities including ICT, teaching personnel, and curriculum structure (See also B4.15)	% with adequate provision by state and non-state providers within Aliya system – teachers, instruction, physical facilities	Conduct assessment aiming for consolidation of quality improvement in madrasah system (a 5-10-year plan}	Comprehensive improvement effective in 50% of madrasahs in the first 5-year phase	BMEB BANBEIS Third Party Assessment	TMED MED BMEB	Policy support of government ensured, Adequate budgetary provisions made. Quality improvement standards set(Action linked to item B4.15.)
A5. TVET						
20. Number of students in technical-vocational stream at the secondary level (general stream & Technical school/college)	# (grades 9-12) (total, female, male); % to be assessed	Total approx. 600,000 Girls c. 27%	Total 800,000 Girls 45%	TMED / DTE BTEB EMIS BANBEIS	MOE / DTE/BTEB	Quality data. Decision about nature and size of TVET participation and balance between general secondary and specialized vocational/technical decided
21. Enrolment in polytechnic institutions and other technical vocational institutions	# Enrolled in Polytechnics and other T/V (public/private) (total, female, male)	Polytechnics– 338,000 Female Public/private TBD	550,000. Public/private. gender ratio to be raised towards parity	TMED / DTE/BTEB / EMIS BANBEIS	TMED /DTE/BETB BANBEIS	Quality data. Decision as noted above
22. Affirmative step - stipends; in Polytechnic and	% of students covered by stipends in different categories(total,	# - 180,000 Study of efficacy of	#- 750,000	TMED / BTEB / DTE EMIS. BANBEIS	TMED/DTE/ BANBEIS	Current stipend coverage continues; Stipend expansion based on efficacy of current stipends

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
other T/V students	female, male TBD)	current stipends				
23. Affirmative step- Girls' enrolment in Polytechnics and other T/V training	% overall ratio of girls in different types of institutions. Breakdown to be assessed	% Overall, 27% (2019)	% overall girls 35%	TMED / BTEB / DTE BANBEIS	TNED/ BTEB/DTE	Quality data. Affirmative step decisions, strategy strongly supported, funding committed
24. Affirmative step- TVET institutions established for girls; stipends	# TVET institutions of established for girls; stipends	# 4 Girls Polytechnics, Stipends (girls' priority) 180,000 (2019)	# 16 Girls polytechnics. Stipends (girls' priority) 750,000	TMED / DTE EMIS BANBEIS	TMED/ DTE	Policy priority with effective action and timely budget decisions
A 6. NFE						
25. Enrolment in second chance primary	# in second chance primary. % of out-of-school age 8-14	89,000 (2019) % of out-of-school age 8-14 (To be assessed	1,000,000 cumulative 100,000 completing by 2025 Average of 75,000 students each year in a 4 year course ,	BNFE EMIS BANBEIS	BNFE	Measures taken to improve quality and attractiveness of program and quality l earning outcome assured.
26. Enrolment in second chance secondary equivalency program, aimed at SSC certification with 'open school' approach	# of students. % of out-of-school age 12—18 years	Programme to be designed and piloting initiated. % out-of-school to be assessed	100,000 cumulative in 5 years	BNFE Open University EMIS. BANBEIS	BNFE/ Open U.	Average intake of 10,00 each year; cumulative enrollment of 100,00 by 2025 in a five-year SSC equivalency course; Open U partnership agreed
27. Youth participating in vocational / Life skills training geared	# Youth and adults 15 + in program	To be designed and planned in collaboration with NGOs and	500,000 cumulative	BNFE/EMIS NGOs. BANBEIS	BNFE/ NGO consortium	Policy support for need-based training from 3 days to six months within NTVQF; Geared to informal economy; Effective partnership with

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
to local informal economy		private sector		Third-part evaluation		NGO and private sector providers
28. Literacy and continuing education for youth and adults	# and % of youth and adults of 15+ age	Baseline determined for a re-designed program (of varying duration)	5 million cumulative in self-paced courses of varying duration	BNFE EMIS BANBEIS	BNFE. NGO Consortium	Current BLP redesigned to make it more responsive to needs and effective. To be done with NGO consortium
29. Arranging community-based learning points/centers	# Learning points/centers	Sustainable design to be developed and piloting begun	Average of 10 learning points with one learning in each Upazila	BNFE EMIS/ NGO Consortium reports	BNFE/NGOs consortium	Policy decision and support for design of community-based learning centers management
A7. Tertiary						
30. GER (overall) of 18-24 years age group *Note: GER rather than NER considered appropriate for tertiary level*	% of tertiary education age group enrolled	18% (To be verified)	25%	UGC /DSHE BANBEIS	MOE/ SHED UGC	Consensus on policy steps for tertiary enrolment to increase in line with demand in public/private universities and affiliated colleges
31. Overall Female GER in Tertiary. Female ratio of students in public u., private u., affiliated institutions.	Female GER. % of female enrolment in total in different tertiary categories	GER 15% (To be verified) Female ratios (public u. private u., affiliated institutions?)	GER 20% Female ratio in categories of institutions to be assessed	UGC /DSHE, BANBEIS	MOE/ SHED, NU, Islamic Arabic U	A one-third GER growth in 5 years is ambitious. To be monitored and watched to maintain quality & fairness in tertiary education access.
32. Participation of students from two bottom income quintiles	% of low-income group in tertiary enrolment	Current status TBD	25% (SPHE target)	UGC /DSHE BANBEIS	MOE/ SHED UGC	Criteria set and applied objectively; Target has to be monitored &watched to maintain quality and fairness in tertiary access.

Target Item (1)	Indicator (2)	Baseline c.2020 (3)	2025 Target (4)	MOV (Means of verification} (5)	Lead Agency (6)	Risk Mitigation /Enabling Condition (7)
33. Financial support for students to enhance participation	% of students benefiting from stipends/tuition waivers and loan schemes (Public and private universities and affiliated institutions.)	Present status to be determined. Financial support programs and strategies to be worked out	To be determined for categories of institutions. Plans and strategies in place and implement ation begun	UGC, MOE/DSHE, BANBEIS	MoE/SHED, UGC	Policy and plan formulated and agreed.
34. Share of enrollment in STEM + foundation of liberal education for all students	% of tertiary enrolment in STEM	30% (Breakdown – public. Private, affiliated insts., madrasah?)	50% Break-down to be established	UGC /DSHE BANBEIS	UGC BANBEIS	Near doubling STEM enrolment in 5 years is ambitious; Maintaining quality of programs with proper investments has to be ensured

A. Quality and Relevance

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
B1. Pre-Primary and Primary Education						
1. Schools with manageable class size	% of schools with average student-teacher ratio of <30 per school shift	% school (% in GPS. % in NGPS) To be determined	100% PPE 100% GPS 50% NGPS	DPE EMIS. MICS BANBEIS	DPE, BANBEIS	Policy decision for STR specified, adequate resources available.
2. Qualified teachers with pedagogy training	% of total primary teachers with formal pedagogy training (total, female, male)	% C-in-ed, Dip-in-ed, B-Ed or equivalent To be assessed	100%	DPE EMIS. BANBEIS	DPE, BANBEIS NAPE	Ensuring all teachers participate in training before employment or soon after being employed.
3. Teachers and education personnel participating in CPD	% of primary teachers/HMs with in-service/CPD (total, female, male)	% In different types of CPD	100% with each at least15 days of CPD in a year	DPE EMIS. MICS BANBEIS	DPE, BANBEIS NAPE, Upazila Resource Teams	CPD improved and designed based on needs; CPD participation for all planned and provided for

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
4. Classes using supplementary learning materials and learning aids with school ranking (a, b, c by status of use)	% of schools applying plan for use of learning aids, materials, and ICT materials in classes with ranking	Assessment of baseline status undertaken with ranking of a, b, c	50% at least with rank b, progressive increase in high performance rank	DPE EMIS. MICS BANBEIS Third party evaluation	DPE, NCTB	Criteria set for ranking; budgetary resources made available
5. Piloting 2-year PPE	Progress in initiating 2-year PPE	Design and pilot initiated (Linked to Item A1.2)	Program initiated and expanded to about 2,600 primary schools	DPE EMIS, Third party evaluation	DPE, NAPE, NCTB	Piloting for 2 years prior to expanding; Early Learning Development Standards (ELLDS) applied
6. School based learning assessment supplemented by standardized summative assessment	# of schools with formative assessment plan and its application	Plan to be developed with technical assistance (linked to item D--)	100% Applying plan for school-based assessment	DPE EMIS TA documents and reports	DPE Central and field (with Technical Assistance)	Introduced through CPD for HTs and teachers with phased coverage
B2. Secondary Education						
7. Schools with manageable class size	% of schools with STR < 30 per shift	TBD	50%	DSHE BANBEIS	MOE / SHED	Planning to reach STD<30 by 2030. Budgets available
8. Qualified teachers with pedagogy training	%formal pedagogy training (B. Ed, M.Ed or equivalent)	26 % in junior secondary. 73% in secondary (2019)	50 % in junior secondary. 80% in secondary	DSHE EMIS, BANBEIS	MOE / DSHE	Implementing BEd or equivalent post-graduate degree as a requirement
9. Teachers and education personnel participating in CPD	% secondary teachers with in-service/CPD	-% Teachers In different types of CPD. TBD	100% in at least 15 days of CPD in a year	DSHE EMIS, NAEM, BANBEIS Third party assessment	SHED,NAEM TTCs,District Resource Teams	CPD improved and designed based on needs; CPD participation for all planned and required
10 Classes using supplementary learning materials, learning aids, ICT resources	% of schools with ranking of a, b, c based on quality of activities	Ranking developed, % in different ranks	50% in at least rank b, 30% in rank c (high performance)	DSHE NCTB Plans and reports; Third party assessment	DSHE NCTB	Criteria set for ranking; budgetary resources available

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
11. Schools with plan and application of formative assessment	% of schools with plan and initiation of planned activities	Current status to be determined, TA support linked to D4.12.	100% with plan and implementation started, and capacity building begun	DSHE Schools Plans and reports, TA reports	DSHE EMIS Schools reports	Introduced through CPD for HTs and teachers with phased coverage; Inclusion strategy developed (See D4)
B3. Higher Secondary						
12. School/college with manageable class size	% of schools with STR<30 per shift	TBD	60% schools with STR <30.	DSHE, BANBEIS	MOE / SHED	Overall STD to be adjusted to need for subject-based teaching
13. Qualified teachers with pedagogy training	% of total higher secondary teachers with formal pedagogy training	% with pedagogy training (TBD)	80%	DSHE EMIS' BANBEIS	MOE / SHED NAEM	Implementing B.Ed, M.Ed. or equivalent post-graduate degree as requirement
14. Teachers and education personnel participating in CPD	% of teachers/Heads with in-service/CPD of different types	% TBD	100%with at least 15 days of CPD training	DSHE EMIS, Third Party Assessment	MOE / SHED NAEM	CPD needs examined and types of training and outcomes determined.
15. Classes using supplementary learning materials, learning aids & ICT resources	% of school/college using learning materials, ICT ranked in categories a, b, and c	--% schools with different levels of effective use determined by ranking	At least 50% in b category, and 30% in c (high performance)	DSHE EMIS, Third Party Assessment	MOE / SHED. NCTB	Criteria set for ranking; budgetary resources available
16. Institutions with plan and application of formative assessment	% of institutions with plan and initiation of planned activities	Current status to be determined, TA support linked to D5.	100% with plan and implementation started; capacity building begun	DSHE EMIS TA reports	MOE / SHED	Introduced through CPD for HTs and teachers with phased coverage
B4. Madrasah						
15. Study and design of curriculum structure, T/V content, teacher skills & deployment, and	Progress on findings made available and actions taken on assessment of	TA appointed (linked to A4.15) to conduct needs assessment and analysis, action plan	Action plan based on findings applied to institutions; Cycle of planned	Study findings; Action Plan, Third party	TMED BMEB	Study TOR designed to probe issues objectively and take relevant policy decision

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
assessment of student learning to enable acquiring core competencies by madrasah students	curricular objectives, and teaching-learning effectiveness	developed and implementation started	activities begun	assessmen t		regarding consolidation and quality improvement.
B5. TVET						
16. Teachers/ trainers (with subject qualifications & practical experience; STR<30 by institution types	% of schools meeting qualified teachers' criteria by types of institutions: And overall STR <30 – polytechnics, TSCs, general schools	% of schools in categories TBD. # Qualified TVET teachers – 53,684 (2019)	Qualified TVET teachers increased to 90,000 % institution s meeting criteria of teachers and STR improved by 50%	DTE BTEB EMIS BANBEIS data	TMED DTE BTEB Institutio ns	Criteria of qualified teachers and teacher performance standards are determined for Polytechnics and other T/V Training institutions
17. Study of market responsiveness/ adaptability of curriculum content, training practices, student assessment and post-training support in types of T/V training	Actions based on study findings. Tracer study findings of graduates of different types	TA appointed; study undertaken. Action plan developed and implementatio n process started.	Reforms initiated in polytechni cs and other T/V institution s, With major progress in 50% institution s	DTE, BTEB. TA reports. tracer studies	TMED, DTE, BTEB	MOE/TMED Policy support for critical and objective assessment of TVET cost-effectiveness. NSDA support needed
18. TVET teachers/trainer s with in-service/CPD	% of teachers in different types of institutions in CPD	# and.% Participant in CPD to be determined	At least 15 days of CPD in a year for at least 50% teachers	DTE/ BMEB EMIS Third Party assessme nt	TMED DTE BTEB	Features of relevant CPD in TVET determined
19. Institutions adequately equipped with workshops, learning facilities, ICT structure	# and % with adequate facilities of different types (Polytechnic s and others) by ranks a, b, and c	Criteria for ranking determined; (a low. b-medium; c-high); and status assessed	At least 50% in category b. At least 30% in category c.	DTE/ BMEB Third Party Assessme nt	MOE / TMED	Criteria and standards for well-equipped institutions of different types determined; DTE prioritizes the target. Budgets available
20. Institutions with plan and application of	Number and percentage of institutions	Ranking criteria established	At least 50% in category b and at	DTE/ BMEB EMIS	MOE / TMED Institutio ns	BTEB takes lead in setting criteria for ranking;

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
summative and formative assessment, and practical skills ranked in three categories (a,b,c by performance)	of different types in the three categories	and applied to institutions	least 30% in category c (high performance); teacher capacity improved	Third party assessment		DTE/BTEB prioritizes assessment reform
B6. NFE						
21. Flexible and responsive literacy and adult education programs to be established	Assessed progress in design. % of learners in the redesigned program	Current program design and learning materials reviewed working with consortium of NGOs	Learning materials reviewed and redesigned, flexible duration, objective assessment of learning outcome in place	BNFE/ EMIS NGOs reports	BNFE EMIS, Third party assessment	Redesigning program -- Fixed primers plus locally adopted content; variable duration courses to suit learners; robust learning assessment, IT-based learning; partnership with NGO consortium
22. Effective Second Chance program at primary level	Approved quality standards applied in program design and implementation	Design and performance of primary education second chance reviewed	Primary second chance evaluated; redesigned. Applied in implementation involving experts and NGO consortium	BNFE/ NGOs EMIS Third party assessment	BNFE EMIS, Third party evaluation	Agreement that both program quality and program operation need improvement and implementation through NGO consortium and expert advice
23. Second chance for secondary level	Progress on new program design and implementation	No program at present. Needs assessment and preparatory work to be undertaken	Secondary second chance newly designed, with stronger ICT role and collaboration on with Open University.	BNFE/ EMIS. Third part assessment linked with item 22 Report	DSHE/BNFE EMIS	Agreement on new program to be designed involving BNFE, DSHE and Open University

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
24 Designing life skills and livelihood skills programs for youth and adults -- Geared to local informal economy opportunities	Progress on program design and application of design	New activity -- Market assessment done, need-based content to be designed with national NGO consortium	Training activities designed and implementation begun with collaboration of NGOS and private sector	BNFE/ EMIS NGO Consortium EMIS. Third Party assessment	BNFE NGO Consortium	Agreement on the scope of livelihood skills to include employment, self-employment; entrepreneurship geared to local informal economy.
25. Ensuring skilled trainers, facilitators, supervisors and managers of learning activities	Numbers of trainers/supervisors/managers of different types for livelihood skills, literacy and second chance	Current Second-chance primary education teachers -- Supervisors -- Adult literacy trainers - TBD	Requirements of trainers, supervisors and managers established; plan in place to meet these. Substantial progress in applying plan to current activities	BNFE/ NGOs EMIS	BNFE, NGOs Consortium	Attracting qualified teachers/trainers, supervisors, managers recognizing difference from formal education, relevant professional support planned; performance standards & their assessment determined and applied.
26. Assessment of learning outcomes for diverse educational activities and groups of learners	Assessed progress in complementing internal assessment with robust external assessment of NFE learning outcomes	Plans made for objective assessment by independent bodies, applying equivalency framework as needed, Third-party assessment &tracer studies.	Major progress in applying planned learning assessment methods and mechanism in all NFE activities with regular independent tracer studies.	BNFE/ NGOs EMIS Third Party assessment	MOPME BNFE	Technical capacity to be developed involving NGOs with relevant experience, and with academic institutions
27. Developing a national resource center to provide technical support and system capacity building	Resource center established	Current ad hoc project-based approach for technical assistance reviewed and plan made for institutionalize	A national NFE resource center purpose, function, organizational structure,	BNFE/ NGOs Consortium Plans and Reports. Third party	MOPME BNFE	NFE resource center to be a partnership with dedicated NFE NGOs through NGO consortium and academic institutions with emphasis on collaborative

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
		d technical support.	human resources, facilities and financing determined, and operation begun.	assessment		professional and technical work agenda
B7. Tertiary Education						
28. Trained Faculty through CPD in public u., private u,. and affiliated colleges	Number and proportions of teachers trained in public u., private u. affiliated institutions	Current status to be established with breakdown in three main categories	Approx. 75 thousand faculty gets training in five years (SPHE target), Breakdown established and applied	UGC reports. BAC reports. Third party assessment	UGC, Tertiary Institutions. BAC	UGC leads the initiative to encourage CPD plans in each institution. BAC plays key role aiming for transforming teaching-learning
29. Student-Teacher Ratio	Average overall ratio in private, public universities, and affiliated institutions. % of 3 types of institutions achieving STR<30	Average STD in the three main categories to be established	Average STD <30 in the three main categories	UGC report. NU reports, BANBEIS	UGC, NU and Tertiary institutions	To be applied to all tertiary education institutions (public and private universities, NU affiliated colleges etc.) - with flexibility in types of courses
30. Self-Assessment of institutions (Public Universities, Private Universities, Affiliated Institutions); BAC role	BAC-led Self-assessment tools available. % of Institutions with own medium-term academic development plan	TBD Current status of self-assessment in three main categories	Substantial progress in applying self-assessment tools; 50% Institutions in three categories have development plans submitted for review and feedback by BAC/UGC	UGC reports BAC reports	UGC BAC, NU, Institutions	BAC and UGC make action plan to promote and support institutional self-assessment and development plan; Methodology developed for applying BQF framework to NAC

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
31. Institutional plans for mobilizing additional resources	Overall proportions of budget mobilized by institutions (public) and endowment funds mobilized by private institutions	Current status TBD	50% Institutions become active with fund mobilization plan	Institutions' plans. UGC reports and guidance	MOE. UGC	Universities become active in mobilizing funds for research working in collaboration with private sector and raising endowments
32. Setting up a National Research Council and promoting university research	National Research Council established. % of public and private universities with research planning and enhanced research funds	Present Status of research funding and Research environment in universities (to be determined)	NRC offers guideline, Public and private universities develop research plan, research collaboration w/private sector; larger research budgets (at least 5% of operating budget for research)	UGC and university reports, data	UGC, Universities	MOE, UGC increases research budgets, encourages universities and enhances faculty incentives for research. Role functions and operating procedure of NRC determined with stakeholder participation
33. Enhancing university role in professional development of school education work force with a 'concurrent' under-graduate program	Assessed progress on developing and implementing the 'concurrent approach'	UGC, NU, MOE, MoPME work jointly to develop program. (TA appointed, see item D--)	Trial of program begun in 2-degree colleges in 8 divisions; Major role of IERs and Education Institutes of universities inprogram planning	Plan documents, TA reports	MOE, MoPME, UGC, NU	Policy decision to undertake a major 10-year initiative to "reimagine" the 21st century education workforce
34. All tertiary education	Degree of BdREN Outreach to	Present Status (Most public	All public and	UGC and BdRENre	UGC. NU, BdREN	Policy decision to connect all higher education and

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	Target 2025 (4)	MOV (5)	Lead Agency (6)	Risks and Risk Mitigation (7)
institutions enjoy BdREN facilities	different types of institutions	and a few private universities are connected); No affiliated college	private universities and 50% of affiliated colleges enjoy BdREN	ports, data		research institutions and support academics, scientists, researchers and students; all institutions brought under digital library network.
35. Universities and affiliated institutions offering online courses and blended learning	Proportions of institutions (public, private, affiliated) with action plan for online and blended learning. Assessed progress in applying action plan ranked in 3 categories (a, b, c) by performance	Current status TBD. Three-way ranking established and applied through third party assessment. institutions supported to prepare action plan	All institutions with action plan for online and blended learning. 70% institutions in rank b (medium performance),30% with rank c (high performance)	UGC data, Institution data and reports, Third party assessment report	UGC, Institutions. BdREN	Policy decision and action plan of UGC supported by MOE for all tertiary institutions to utilize online and blended learning. Adequate financing made available

Governance and System Management

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
C1. Pre-Primary and Primary						
1. Resource team in upazila provides quality support to PPE and Primary Education	% upazilas with established Resource Team	Status in 2021 to be established	At least 50% of upazilas with functioning resource team	DPE	DPE EMIS	At least 20 people team to support an average of 200 primary schools in each upazila
2. Development and piloting of model for upazila-based primary education planning,	Assessed progress on developing model Upazila capacity for primary education	UPEP and SLIP Activities % of Upazilas in % of schools (2020). Technical Assistance	Model of upazila-based planning, management, budgeting, and monitoring developed; trial of model begun	Plan output, DPE EMIS	DPE central and field level	Policy commitment to decentralization and devolution beyond premises of UPEP and SLIP; Preparatory

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
budgeting and management with progressively greater authority to schools	planning and management;	appointed to develop model decentralization plan and resource team development (item 1 above)	in two upazilas in each division.			work, 3-4 years of trial in selected upazilas to build basis for national replication.
C2. Secondary Education						
3. Resource team in each district to provide quality support to secondary education	Progress on developing resource team. % of districts with functioning resource team	Technical Assistance appointed to develop model resource team and decentralization plan (item 4 below)	At least 50% of districts With functioning resource teams	Resource team plan and activity reports, TA reports	DSHE; NAEM, Teacher Training Institutions	Policy commitment and budget for dedicated secondary school resource teams to support secondary schools in each district
4. Development and piloting of model for upazila-based secondary education planning, budgeting and management	Progress on model development. # districts with functioning resource teams	Technical assistance appointed (linked to item 3 above)	Trial of model begun in two upazilas in each division.	Decentralization plan and activity reports, TA reports	DSHE; NAEM, Teacher Training Institutions	Commitment to genuine decentralization and devolution; 3-4 years of trial in selected upazilas prior to national replication.
5. Performance-based grant to schools transforming MPO subsidy approach	Progress with grant model for non-government schools. % institutions in trial	#/% Institutions and teachers receiving MPO. TA to develop performance-based model	Performance-based grant trial in five schools in 8 divisions. Action plan for replication linked to item 4	Model design, Report of trial, TA reports	DSHE Education Boards	Policy priority on shifting to effective performance based financing linked to decentralization model
C3. Higher Secondary						
6. Performance-based grant to schools to change MPO subsidy approach	Progress with grant model for non-government institutions.	Institutions and teachers receiving MPO. TA to develop performance-based financing model (linked to item 4 & 5)	Performance-based grant trial in two institutions in 8 divisions. Action plan for replication	Model design, Activity report of trial, TA reports	DSHE. Education Boards	Policy priority on shifting to effective performance-based financing
C4. Madrasah						

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
7. Strengthening governance and management capacity for madrasah education (linked to B4.15)	Assessed progress on Action Plan for strengthening madras education management	TA to conduct capacity assessment (linked to TA item B4.15 on quality madrasah education) Approval of capacity development action plan	Action plan implementation begun for BMEB and institutions. Monitoring and evaluation of implementation	Governance and Management Action Plan. TA reports Third party assessment	TMED, BMEB	Capacity building supported, Policy commitment to decentralization and management reform, consolidation of quality madrasah education. Budgetary resources available
8. Determining unit costs for different levels of madrasah students for Quality education	Unit costs determined and used in budgeting	Current estimate of per student annual operating budget at different levels (linked to item 7)	Action plan for applying unit costs for budgeting and financial management at different levels of madrasahs	Results of unit cost exercise applied in budget and finance of institutions in phases	TMED BEB	Criteria of adequacy for quality instruction and learning outcome agreed, budgetary resources available
9. A participatory dialog involving the Quawmi Madrasah Boards and the Madrasah Education Board on Quawmi madrasah governance and management	Progress on dialog and action plan	TA appointed for dialogue with Quawmi madrasah stakeholders at national and grassroots levels.	Consensus on action plan based on dialog. Monitoring and evaluation of action plan Implementation begun	Dialog results: Action plan. TA reports	MOE/TMED, BMEB, Quawmi madrasah boards	The exercise can bear fruit if the Quawmi stakeholders are interested in this initiative and see it to be in their benefit.
C5. TVET						
10. Decentralized TVET management with functions and capacities devolved and increased authority for institutions	Progress on decentralized management model. % of institutions by types benefiting from the approach. Types and numbers of	TA appointed (linked to item B5.17 on quality TVET) to Review types of institutions &their	Management model applied to types and numbers of institutions. 50 % of heads and managing committees receive training	Management model, Reports and assessment by TA. Training content and methods applied	TMED, DTE, BTEB. Institutions	Policy support for decentralizing functions and roles of DTE and BTEB and autonomy of institutions. Leadership enhancement to

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
(polytechnics, other TVET) (Linked to item B5.17)	personnel receiving management training.	management issues. capacity building plan at different levels				improve management and results.
11. Institutions with ICT-enabled EMIS for updated TVET data and data management	Progress on Number of institutions with ICT enabled EMIS (Polytechnics/ Others)	Current status of EMIS and ICT capacity assessed	50% of institutions with ICT-enabled EMIS	DTE Reports and EMIS	DTE, BTEB	Budgets and resources made available and priority given to project
C6. NFE						
12. Strengthening organization and management (O&M) structure for NFE with focus on modalities of partnerships and coordination	Assessed progress on Strengthened BNFE management, partnerships and coordination	TA appointed to review current BNFE O&M and design new structure	Structure designed and implementation initiated for strengthened BNFE O&M	TA reports; Plan for O&M reform, Reports of action based on plan	MoPME, BNFE	Present structure to be reviewed and improved with focus on partnerships with NGO consortium, local govt., other gov. agencies, private sector with BNFE as policy-setting, facilitating and oversight entity.
13. Improving NFE Human resources policy, management and capacity building (Linked to item 12 above)	Plan prepared and actions	Present BNFE human resource policy and staffing reviewed in light of ESP (TA linked with item 12 above)	Human resource development and management framework approved and in operation	HR policy document, TA Reports	BNFE MoPME	Decision to redesign NFE human resource development in light of NFE role envisaged in ESP, based on assessment of existing structure, management practices for improved performance and results, and capacity building
14. Advocacy plan for NFE for policymakers and citizens on role of NFE	Progress on Advocacy strategy and plan, participation of	Work done on Non-Formal Education /lifelong learning including draft	Advocacy agenda and plan put in action, partnering with NGOs and other stakeholders.	Reports of work done, and actions taken	MOPME, BNFE	In light of the current lifelong-learning and NFE priorities for SDG2030 and SDG4.

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
and lifelong learning, community control, adequate resources, partnerships and coordinated approach	stakeholders and results achieved.	DPP to be critically reviewed. Public dialog initiated	Policy consensus on scope and nature of an NFE subsector integrated program			NFE success depends on consensus-building for an integrated NFE/ lifelong learning program approach
15. Strengthening M&E and MIS system of NFE	Progress on M&E and EMIS plan and capacity building	Current BNFE M&E and EMIS reviewed and improvement designed with ICT role (TA linked with items 12 and 13 above)	Improved M&E/ EMIS. Used in decentralized management; Capacities built including ICT use.	M&E and EMIS plan, TA Reports and documents	MoPME , BNFE	M&E and MIS capacity and performance assessment needed to support an integrated, subsector NFE program
C7. Tertiary						
16. Umbrella Legislation To be applied to tertiary institutions	Progress of work on Umbrella Legislation	Current legal frame to be reviewed; Nature, character and features of umbrella law determined	Legislation applied to institutions balancing academic autonomy of institutions and special characteristics of institutions	UGC report on progress	UGC, New universities	"Umbrella Legislation"; need to recognize specificities and distinct roles of different institutions .
17. Amending Private University Act 2010	Amended Act	Under development	New Act applied to institutions	Act, Reports on application of act	UGC. Private Universities	Complementary and distinct roles of types of institutions need to be recognized.
18. Enhancing capacity and autonomy of regional centers of National University aiming for quality enforcement in affiliated institutions	Plan for National University decentralization	Present status to be assessed	Application of the plan in NU operations and in affiliated institutions	Reports on progress of work from NU and UGC	UGC, NU	Resistance to decentralization has to be overcome and support built for principles of responsive and efficient management.

Target Item (1)	Indicator (2)	Baseline c. 2020 (3)	2025 Target (4)	MOV (5)	Lead Agency (6)	Risk/Enabling Condition (7)
19. Protecting tertiary education from undue political interference	University governing bodies adopt "guiding principles" to protect tertiary education sanctity; Code of conduct adopted for teaching and administrative personnel and students	Public, private and national university set up stake holder task forces (teachers, students, civil society) to advise on "guiding principle" and codes of conduct	Al least 50% of universities and affiliated colleges adopt guiding principles, codes of conduct and set up operating mechanisms	Documents on guiding principles, codes of conduct	MOE, UGC, University management	Political commitment has to back up this target; MOE, UGC and NU have to lead in encouraging institutions to take necessary steps.
20. Strengthening tertiary education oversight by enhancing capacity and role of UGC	Progress made on strengthening UGC	UGC taskforce comprising stakeholders works on rationale, purpose, functions, operational principles, and accountability mechanism	Strengthened UGC becomes functional	Taskforce outputs, related documents.	MOE. UGC	Policy commitment and consensus-building to strengthen tertiary education oversight and quality assurance capability, upholding the mission and role of higher education.
21. All institutions to have policy/strategy in place for mobilizing additional funds	Funding enhanced	TBD Current status to be assessed	All universities and affiliated colleges develop resource mobilization plan; at least 50% plans become operational	Fund mobilization plans, reports, results	UGC Universities	Serving national priorities and "public good" role of higher education should not be undermined. .

D. Across-Sector Results Monitoring

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
D1. Re-imagining Education Workforce						
1. Establishing desired composition of the education workforce by major types of personnel and for types of institutions	Assessed progress on identification, qualification of personnel and model composition for various types of institutions	TA TOR and appointment agreed. Review of current HRD mechanisms, plans and operations in types of institutions. MPO-supported institution staffing plan;	Model composition of workforce agreed, and progress made on implementation in sub-sectors and types of institutions, (focusing on school education)	TA reports and documents; EMIS of sub-sectors, Third Party Assessment	Steering Committee /Senior. Taskforce MoE, MoPME	Inter-ministerial consensus reached and coordinated action agreed; MoE/MoPME Steering Body's full support given
2. Progress towards adequate numbers in education workforce in different types of institutions by 2025, 2030.	Assessed progress towards benchmark average STD< 30 in sub-sectors and institutions	Current status of STD in different sub-sectors and types of institutions and action plan for change	Plan for sub-sectors to reach average STD<30 and significant progress made in sub-sectors and institutions	TA reports. Subsector EMIS, BANBEIS reports	MoE/MoPME Steering Committee . BANBEIS	Policy support for plan and budget framework to support the change
3. Education workforce professional preparation through a "concurrent" approach and related HRD steps for attracting and selecting talented people into school edn.	Agreement on plan for the concurrent approach and related HRD measures. Progress on implementation	TA (item 1) appointed; Main actors begin planning for concurrent approach and related HRD steps	Plan implementation begun with piloting of plan in selected institutions; Policy and legal steps taken - e.g. setting up National Education Service Corps	TA reports. MoE and MoPME documents and reports; Assessed progress on concurrent approach and other HRD measures. 3rd Party Assessment	MoE/MoPME, Steering Committee ; UGC, NU	Policy support for HRD steps; Inter agency collaboration among key actors, Steering body support. Public and education community acceptance of plan
4. Strengthening result-	Assessed progress on	TA linked with item 3	Results from CPD	TA reports for action	MoE/MoPME,	Consensus among key

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
focused continuous professional development (CPD) for teachers and other education workers. Linked to concurrent approach and HRD steps	designing results-focused CPD. Numbers and proportions of teachers and other education personnel in CPD by sub-sectors, types of institutions, and types of training	in place; Current state of CPD -- approach; scope and size of activities and reform initiatives	determined; Assessing results focused CPD begun to be applied in levels and types of institutions. Performance based evaluation of teachers and education personnel initiated	plan on results focused CPD and performance -based teacher/education personnel evaluation -- Third party evaluation.	Steering Committee ; UGC, NU	actors; Redirecting current teacher training institutions to CPD. Transition plan to minimize disruption as the system change is rolled out.
D2. Climate Change and Natural and Man-made Emergencies						
5. **Curricular reform to strengthen learning content, objectives, activities and results from school education to promote resilience/ capability for climate change and emergency response**	Assessed progress in curricular reform and co-curricular activities on climate change and emergency response and implementation in schools	T A agreed for items under D2 and appointed, Current climate change and emergency preparedness response and implementation arrangement reviewed and action plan proposed	Strengthened curriculum plan and co-curricular implementation steps begun in different levels and types of institutions. Future and directions determined	TA reports; Documents, reports of sub-sectors. Third Party Assessment	MoE/MoPME Steering Committee. NCTB. Education Boards	TA appointed; National climate change and refugee/displaced policy and plans used as frame of reference; Climate change and emergency response expertise utilized;
6. **Short- and longer-term education response to COVID-19 pandemic**	Assessed progress on strengthening equity and inclusion measures, ICT enabled learning. and enhanced learner and institution	TA linked to item 5; Sub-sector and institution-based immediate response reviewed. Actions for recovery of learning	Effective implementation of education recovery plans. Longer term inclusion, equity and ICT-enabled learning plans initiated; MoE/MoPME	TA reports; Documents and reports of MoE/ MoPME and Steering. Committee: Relevant research and	MoE / MoPME; Steering Committee	Policy commitment led by MoE/MoPME Steering Committee

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
	resilience as pandemic response	loss; and longer-term measures initiated in institutions	Steering Committee actions on sector response	survey reports		
7. **Promotion of ethics and values among young people appropriate for sustainable living and global citizenship (SDG Target 4.7),**	Assessed findings on student and teacher awareness knowledge and practices about ethics and values, co-curricular activities role. Action plans by sub-sectors and institutions	TA linked to D2 items; Current plans and practices reviewed in sub-sectors as reflected in learning content, teacher training, pedagogy practices, and student assessment. Action Plans for future work	Curricular content, pedagogy teacher preparation, school culture, co-curricular activities, student assessment reflect ethics and values objectives, Action plan followed	TA reports; Action plans of sub-sectors and institutions. Independent research reports. Third party assessment	MoE/MoPME steering Committee, NCTB, Education Boards, Teacher training Institutions	Policy commitment guided by Steering Committee. Public support generated with civil society and teacher's organization involvement.
D3. ICT for and in Education, 21st Century Skills and the Fourth Industrial Revolution (4IR)						
8. Major expansion of ICT enabled learning at different levels of institutions with a ten-year and five-year perspective	% of institutions and learners participating in ICT enabled learning by set criteria of ICT infrastructure, learner participation, content provision, and Teacher skills improvement	TA agreed and appointed for items under D4; Assessed current situation of institutions and learners participating by defined indicators. A National Taskforce appointed to advance ICT enabled learning and prepare action plan –	Connectivity, infrastructure, contents and teacher skills meeting set standards in 50% of school education, and 100% of tertiary education as part of 10-year plan of ICT-enabled learning in all institutions. Blended learning introduced at all levels of institutions.	TA reports. Approved Taskforce action plan. Subsector EMIS and reports. Third party evaluation	MoE / MOP ME/ A2I UGC, NU	Coordination of policy and action guided by Steering Committee. Collaboration with BTRC and ICT industry including Mobile Phone providers. Budgetary resources made available

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
		supported by TA	At least 50% of teaching personnel skilled users of ICT			
9. Availability and adaptation of digital learning content with language adaptation and curricular synchronization In a blended approach	Proportion of curricular materials, textbooks and supplementary materials language – adapted and syllabus-synchronized, available for different levels of school education	TA support; Assessed status of syllabus-synchronized digital learning material for different levels of school education. Action plan for digitization of learning content	Syllabus-synchronized digital material available and in use at all levels of school education in a blended approach – online and offline. Implementation of action; Tertiary institutions place digital course materials on their websites.	TA reports; Assessed digital content output. Subsector EMIS, reports and documents. Third party evaluation	MoE/MoPME Steering Committee; NCTB, UGC' A2I	Priority given in MoE/MoPME Steering Committee
10. Common core curriculum and learning activities for school education preparing learners for 21C skills and 4IR; supportive and collaborative activities with A2I, ICT industry; employers.	Assessed progress for core curriculum development and its implementation (with cross-reference to items 5 and 7 above)	TA linked with item D2.5 and D4.9; Current status of curriculum reform activities, methods underway in relation to 21st century skills, 4IR; Special reference to pedagogy and learning assessment	TA supports NCTB on action plan with objectives, strategies, try-out of activities. Working with selected institutions at different levels, use of student and teachers' portals; capacity building activities	TA reports and documents. Third party assessment	MoE / MOP ME Steering Committee. NCTB / A2I	Support and guidance from Steering Committee. NCTB, A2I work together coordinating activities
11. ICT application in	Assessed progress in ICT	TA TOR agreed, and			MoE/MoPMESteering	Steering Committee

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
learning quality assurance, human resource management, capacity building in EMIS, and learner monitoring	application for quality improvement and system management	appointment made; Assessment of the current EMIS situation across sub-sectors and Action Plan developed	Action plan implementation begun. ICT application in teacher development, learner monitoring and EMIS applied progressively in institutions at all levels;	TA reports and documents. Subsector EMIS. Third party assessment	Committee . Sub-sector EMIS units' A2I UGC	policy support and oversight. Incentives for capacity building at different levels
D4. Inclusive Education Priorities						
12. Improving inclusion measures & outcomes on gender, disabilities; ethnic minorities, and economic and geographical adversities affecting education participation.	Assessed progress on inclusion measures related to gender, disabilities, ethnic groups, and economically/geographically disadvantaged groups (including numbers and proportions in reducing exclusion at different levels and different types; and comparative cost-effectiveness of measures)	TA appointed for D4 support. Current status of inclusion plans and measures and results; assessing affirmative action's balancing quality, equity and inclusion objectives and principles	Determination of specific outputs, outcomes and impact of interventions on inclusion/equity . Development and application of sustainable, comprehensive action plan for inclusion and equity in education sector. Determination of medium and long-term perspective incorporating SDG4 objectives of quality, equity and inclusion.	TA reports. Third party assessment of efficacy, outcome and future directions regarding inclusion and equity. (items 12 and 13)	MoE / MOP ME/ A2I	Steering Committee support and priority given
D5. Assessment of Learning and System Performance						
13. Institutionalizing periodic independent sample-based	Assessed progress on system and mechanism for	TA and TOR agreed. Review done of current	Learning assessment mechanism and capacity in	TA reports. Subsector plans and	MoE / MOP ME/ Steering body;	Steering Body support essential.

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
primary and secondary school level student performance assessment. School-based formative assessment to support effective teaching-learning	standardized learning assessment; complementarity with school-based formative assessment. improved core competencies at key stages in school life of learners	status (NSA and LASI/NASS); Plan developed for complementary formative and summative assessment and assessment of core competencies; institutional mechanism and capacity plan developed. Joining in international assessment examined	place at primary and secondary levels. Student Assessment findings inform policy decisions for pedagogy, learning content, teacher support, and student assessment. TA to study future directions and strategies considered	related documents. Third party assessment	NCTB, MoE and MoPME Directorates	Commitment to setting up Independent learning assessment mechanism and capacity building
14. **Use of National Indicator Framework for SDG4 in tracking progress on national SDG4 achievement**	Assessed progress on setting up mechanism for using NIF mechanism for tracking SDG4 achievement	TA linked with item 13 to assess and promote progress on NIF and National Strategy for the Development of Education Statistics and Action Plan (NSDES&AP) in place and in use.	NIF and NSDES&AP in use. BANBEIS capacity developed as institutional base for NIF/NSDES to track SDG4; Future directions determined based on action plan for NIF and NSDES.	TA Reports; MoE and MoPME EMIS data. BANBEIS. Third party evaluation	MoE / MOP ME/ BANBEIS A2l	Steering body support and guidance essential; BANBEIS, as lead agency for the application of NIF for tracking and monitoring progress and capacity built.
D6. ESP Implementation Mechanism						
15. **A functioning ESP implementation structure set up–**	Performance of the implementation and oversight structure	Inter-Ministerial Steering Committee comprising established;	Leadership and key decisions from Steering Committee guide ESP implementation.	MoE/MoPME Steering Committee decisions. Taskforce and Working	MoE/MoPME Steering Committee	Government approval of ESP and implementation mechanism

Target Item (1)	Indicator (2)	Baseline c. 2021 (3)	End-year (2025) (4)	MoV (5)	Lead Agency (6)	Risks/enabling conditions (7)
Steering Committee for policy decisions, Senior Officials and Experts Taskforce, Working Groups for operational guidance and support		Taskforce of officials and experts and Working Groups formed.	Taskforce and Working Groups supervises ESP implementation. A midterm review of progress Organized. Civil society & development partners involved	Groups documents. Midterm review report		and Steering Committee. Alignment of ESP and 8th Plan; Commitment to an adequate ESP budget framework

ANNEX 8.2: KEY PERFORMANCE INDICATORS (KPI) MATRIX

Overarching Goal of ESP:

> *Contribute to the achieving the SDG4 goal of equitable, accessible and quality education towards building a sustainable and prosperous society and promoting lifelong learning for all, in line with the objective of Bangladesh becoming a developed country by 2041.*

The overarching goal of ESP, three major sub-goals, and 11 outcomes related to the sub-goals guide the selection of the KPIs.

The formulation of KPIs draws on the sub-sector and cross sector components of ESP, which contain the *sub-sector/cross-sector outcomes, outputs and targets.*

The KPI matrix lists the key ESP outcomes, related key outputs, key indicators, and links with related items in the Results and Monitoring Framework. The link shows how the KPIs can be fulfilled as well as the enabling and risk mitigation conditions.

Key Outcomes	***Key Outputs***	***Key Indicators***	***Link to target items in Results and Monitoring Frame***
1.Access and Equity			
1. Universal education up to grade 8 and progress towards universal secondary education goal for 2030	All access components for achieving the outcome are in place	Verified progress towards universal secondary education: All children enter grade 1 with at least one year of PPE NER 80% for grades 6-8; NER 60%for grade 9-10; NER 50%for grades 11-12.	**A1.1 – 1.7; A2.8 – 2.12 A.3.13 – 3.16**
2. Expanded NFE and LLL for children (out-of-school), youth and adults	Improved second chance primary and secondary, redesigned literacy, and livelihood and life skills programs	# and proportions of (out-of-school children and non-literate youth & adults) participants in second, chance adult literacy and life and livelihood programs	**A6.25-29; B6.21-27; C6.12-15; D2.6;D3.8; D4.12; D5.14**
3. New education opportunities responding to need and potentials – e.g., ICT-enabled learning, skills and capability building, self-learning.	Affirmative strategies to mitigate inequity; Expanded lifelong and self-learning for adaptive lifelong skills and capability building, in 4IR context	Assessed progress in expanding ICT-enabled learning and self-learning; % of youth and adults participating in organized occupational skills development, and ICT-enabled learning	**A6.26-27; B5.17; B6.23-24; B7.35;D3.8; D7.35;D3.8;D6.14**
2. Quality and Relevance			

Key Outcomes	*Key Outputs*	*Key Indicators*	*Link to target items in Results and Monitoring Frame*
4. Improving learning outcomes at all levels with competency-based curriculum, active learning methods, and smart learning assessment	Consensus on quality assurance for school and tertiary education; Improved curriculum and learning materials; Reformed learning assessment (standardized national and school-based formative assessment)	Assessed progress in implementing unified core curriculum for school-level education; Assessed progress in learning assessment reform implementation; Verified increase in completion rates and assessed improvement in learning achievement Assessed progress in operationalizing Accreditation Council	B1.1-6; B2.7-11; B3.12-16; B4.15; B5.16-20; B6.21-27; B7.28-33
5. New approach to school education workforce professional preparation	Plan prepared applying a "concurrent" approach; other related measures for enhanced teacher role and performance developed	Verified progress on 10-year plan implementation	D1.1-3 B7.33
6. Strengthened continuous professional development of teachers and other education workers and personnel performance standards applied	Standards set and application begun of teachers and other education personnel qualifications and performance; Acceptable student-teacher ratio	Proportions of institutions of different types and levels where the standards applied; Proportions of institutions of different types and levels with average STD <30	B1.1; B1.3; B2.7; B2.9; B3.12;C3.14; B4.15; B5.18; B6.25;B7.28-29;C1.1, C2.3;D1.4
7. Improved education learning infrastructure and facilities including ICT-enabled learning	Components/criteria of acceptable learning environment set for types of institutions; institutions meeting standards	Proportions of institutions meeting set learning facilities standards	A1.4-7; A2.10-12; A3.14-16; A4.19; B5.19;A6.39;B7.34-35; D3.8
3. Governance and system Management			
8. Improved education governance with decentralization to local and institutional levels and capacity building at different levels	Development and piloting of longer term master plan for effective decentralization, management of human and financial resources and capacity building	Assessed progress in planning for decentralization and piloting at district, upazila and institution levels	**C1.11-2;C2.3-5;C3.6; c4.7-9; C5.10-11; C6.12-15; C7.16-21; D3.11; D5.14; D6.15**
9. Sub-sector comprehensive planning approach within coordinated sector development framework	Subsector plans developed; Capacity improved	Assessed progress in sub-sector planning in different sub-sectors	**A7.30; B4.15; C1.2; C2.4;C5.10; C6.14; C7.20; D6.15**

Key Outcomes	*Key Outputs*	*Key Indicators*	*Link to target items in Results and Monitoring Frame*
	for management support; integrated school education planning and management piloted	and integrated school education management	
10. Larger resources for education, allocated by set criteria and result-based budget management	Public resources allocated based on adequate per student cost standard, results-based financing applied, public-private partnerships promote quality-equity-inclusion objectives	Public education allocations as ratio of national budget and GDP; assessed progress in applying per student cost criteria	See ESP section 7 on costing and financing framework
11. Strengthened education legislation, regulatory framework, and sector coordination based on ESP	Permanent Education Commission established, basic education law adopted, Sector coordination mechanism – one education ministry or alternative adopted	Assessed progress on setting up Permanent Education Commission, adopting basic law, and setting up sector coordination and leadership mechanism	See chapter 5 on Governance and management
4. ESP Implementation Management			
12. Policy level approval of ESP; coordination of policy and strategy support; Financing Frame provided	Policy support for ESP secured; Financing frame for ESP agreed	Assessed progress on enabling decisions for policy support and financing frame for ESP	D6.15 See chapters 5 and 6on governance and management and implementation
13. Alignment of ESP with 8thFiveYear Plan, SDG and SDG4 planning; and Vision 2041 planning	ESP used as guide to education and technology part of 8thFYP; Dialog on aligning SDG planning and Perspective Plan	Assessed progress on alignment of 8thFYP, SDG4 planning and Perspective Plan Vision 2041 and ESP	D6.15 See also chapters 5 and 6on governance and management and implementation
14. High level implementation guidance mechanism -- Steering body for ESP comprising two ministries of Education, and Finance and Planning Ministries; Expert Taskforce (senior officials and experts) to manage ESP implementation; ESP monitoring	ESP Steering Committee chaired by Minister MoE, Expert Advisory Committee (until Permanent Education Commission decision) set up; Senior Expert Taskforce guides Annual ESP Action Plan (national and district) and tracks	Assessed progress on implementation mechanism and performance of high level ESP policy guidance mechanism; Assessed progress on implementing annual action plan; functional monitoring mechanism	D6.15. Also see Chapter6 on implementation arrangements and chapterv5 on governance and management

Key Outcomes	*Key Outputs*	*Key Indicators*	*Link to target items in Results and Monitoring Frame*
	ESP implementation, reporting to Steering Committee; Third party mid-term evaluation of ESP		