INNOVATIVE STRATEGIES IN HIGHER EDUCATION FOR ACCELERATED HUMAN RESOURCE DEVELOPMENT IN SOUTH ASIA

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Contents

Tables and Figures

Tables

Figures

Foreword

South Asia's contributions to the Asian economy and the global labor force are substantial and will continue to grow. The Asian Development Bank's priority in the region is to complement infrastructure investments with strategic support to human resource development to help people move up the value chain. The objective of the Innovative Strategies for Accelerated Human Resource Development in South Asia (Subproject 11) under the Development Partnership Program for South Asia (RETA 6337) is to support emerging opportunities in priority human resource development through targeted policy dialogue grounded on relevant analytical work on technical and vocational education and training (TVET) and higher education.

Financial support from the Government of Australia's Department of Foreign Affairs and Trade—Australian Aid (formerly the Australian Agency for International Development) has helped to prepare six country-level reports on TVET and higher education for Bangladesh, Nepal, and Sri Lanka. The reports identify each country's human resource development priorities, examine issues and constraints, and recommend possible interventions to realize the full potential of their respective labor force. Overall, common issues revolve around equitable access, quality and relevance, and financing. Increasing the number of graduates with relevant skills has been a persistent challenge rooted in systemic quality assurance policies and practices such as the actual provision of market-responsive training and credible assessment and certification. Equitable access does not only depend on availability of funds to provide education and training but equally on efficient use of available resources and effective mobilization of and synergy between public and private institutions in each country.

South Asia's huge opportunities arising from demographic dividend could be harnessed fully only if it is able to skill a large number of new entrants to the labor market every year and upskill the expanding labor force that is still undereducated and inadequately trained compared with their counterparts in other regions. South Asia must capitalize on innovations, knowledge, and skills anchored on high-quality TVET and higher education. Investments in high-quality TVET and selectively in higher education will be crucial for South Asian countries to transition from low-skilled labor to higher productivity and globally competitive labor. There are ample reasons to be optimistic since all countries in South Asia consider investments in human capital development a critical pillar of overall sustainable development.

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Preface

The reports herein provide in-depth analyses of the state of technical and vocational education and training (TVET) and higher education in Bangladesh, Nepal, and Sri Lanka. Each country has two reports covering TVET and higher education which were presented in the three country-level workshops during the first week of December 2012: Sri Lanka (1 December), Nepal (3 December), and Bangladesh (5 December). Participants from government, the private sector, academe, and development partners discussed and validated the findings, and supported the recommendations as well as identified additional next steps.

In TVET, issues range from insufficient teachers and trainers in Bangladesh to lack of quality monitoring system in Nepal, and to inadequate industry participation in Sri Lanka. Among the common issues identified are weak quality assurance mechanisms, low employment rate of graduates, lack of information about demand (leading to a mismatch between training and available jobs), expensive and long-term training that excludes the poor and marginalized, weak institutional arrangements, and inadequate provision of high-quality TVET to manage and scale up training programs.

Higher education is equally affected by various constraints ranging from lack of accountability for performance among institutions in Bangladesh to high politicization in Nepal, and to weak quality assurance mechanisms in Sri Lanka. Common issues identified are regional disparities in access, high cost in private higher education institutions, and poor quality and relevance as well as lack of emphasis on courses that promote entrepreneurship.

Key recommendations of the reports include implementation of a national quality assurance system, establishing a reliable skills data and labor market information system, effective financing schemes, encouraging public–private partnerships, and international benchmarking and mutual recognition for global competitiveness. In TVET, the key priorities are strengthening private training provision with clearly identified and mandated apex agency to effectively coordinate and scale up training programs, development of national competency standards, and building the capacity of TVET institutions. In higher education, the key priorities are developing research capacity, improved targeting of financial assistance to students, adopting formula funding in allocating public funding to universities, promoting accountability and autonomy among higher education institutions, and depoliticization of the higher education system.

The reports were prepared by a group of national consultants: Md. Mohiuzzaman for TVET and M.A. Mannan for higher education in Bangladesh, Devi Dahal for TVET and Hridaya Bajracharya for higher education in Nepal, and Sunil Chandrasiri for TVET and higher education with initial inputs from Dayantha Wijeyesekara on TVET in Sri Lanka. Richard Johanson, the international consultant and main author of the regional report on TVET, reviewed and guided the TVET national reports. William Saint, the international consultant and main author of the regional report on higher education, reviewed and guided the national reports on higher education. The country reports should be read in conjunction with the two regional reports (Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia, and Innovative Strategies in Higher Education for Accelerated Human Resource Development in South Asia), which were published earlier in 2014.

The reports also benefited from comments from Brian Chin, Gi-Soon Song, and Karina Veal of South Asia Human and Social Development Division (SAHS), as well as from David Ablett and Sofia Shakil who at that time were also from SAHS; Rudi Van Dael from Bangladesh Resident Mission; Smita Gyawali from Nepal Resident Mission; and K.M. Tilakaratne and Nelun Gunasekara from Sri Lanka Resident Mission. Brajesh Panth, lead education Specialist from SAHS, managed and coordinated the studies with support from Rhona Caoli-Rodriguez, the national coordinator who replaced Nicholas Tenazas. Brajesh Panth and Brian Chin also made presentations at the country-level workshops. Administrative assistance was provided by Criselda Rufino, Erwin Salaveria, and Rosalia Baeza.

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Abbreviations

AIF	Academic Innovation Fund
BANBEIS	Bangladesh Bureau of Educational Information & Statistics
BOU	Bangladesh Open University
BTEB	Bangladesh Technical Education Board
DPE	Directorate of Primary Education
EWU	East West University
FY	fiscal year
GDP	gross domestic product
GER	gross enrollment rate
HRD	human resource development
HSC	Higher Secondary Certificate
ICT	information and communication technology
IUB	Independent University, Bangladesh
IUT	Islamic University of Technology
IT	information technology
MPhil	Master of philosophy
MOE	Ministry of Education
NER	net enrollment rate
NGO	nongovernment organization
NSU	North South University
OIC	Organization of the Islamic Conference
PEDP I	Primary Educational Development Program
PEDP II	Second Primary Educational Development Program
PEDP III	Third Primary Educational Development Program
PhD	Doctor of philosophy
SSC	Secondary School Certificate
Tk	Bangladesh taka (currency)
UGC	University Grants Commission
UNICEF	United Nations Children's Fund
UN	United Nations
US	United States of America

In this report, "$" refers to US dollars.
Tk = Bangladeshi taka
$1.00 = Tk82.00 (April 2013)
The fiscal year in Bangladesh runs from 1 July to 30 June. "FY" before a calendar year denotes the year in which the fiscal year ended. For instance, FY2011 began on 1 July 2010 and ended on 30 June 2011). The academic year at the elementary through secondary levels begins in January and ends in December. At the university level, the academic year runs from July toJune.

Executive Summary

The landscape of higher education in Bangladesh is primarily shaped by the patterns of development in primary and secondary education. Bangladesh places the highest priority on primary and secondary education when it comes to human capital development. Laudable improvements in primary education have occurred in terms of gender parity, the gross enrollment rate, and the net enrollment rate. However, the gross and net enrollment rates in secondary education, which provides the student population qualifying for higher education, are far lower than those in most countries in the region.

Bangladesh has a total of 90 universities: 34 public, 54 private, and 2 international. In addition, there are about 2,000 degree colleges and institutes affiliated with the National University, 5 autonomous institutes of technology, 2 institutes of accountancy, 59 colleges of law, and 12 government and 14 private medical colleges. Dhaka has the highest concentration of universities, followed by Chittagong. The Ministry of Education (MOE) and the University Grants Commission (UGC) are responsible for higher education. The MOE has the overall responsibility for planning, policy making, guidance, and control of the development of education, including that of higher education, while the UGC allocates the government grants to the public universities and oversees the activities of the private universities.

Since 2001, an upward trend in both university enrollment and female participation in higher education has occurred due to policy and program interventions. Total university enrollment increased by almost 86% during 2001–2012, from 1.19 million to 2.21 million. Over the same period, public university enrollment increased from 1.16 million to 1.89 million; and private university enrollment increased more than eleven times, from 27,245 to 314,640.

Reform Agenda, Key Priorities, and Good Practices in Higher Education

The government's goals regarding higher education are laid out in the National Education Policy 2010 and in the UGC's Strategic Plan for Higher Education 2006–2016. The National Education Policy 2010 aims to provide world-class higher education and to develop skilled manpower, among other goals. In order to achieve this, the government must implement reforms to improve the administrative capacity of higher education institutions. The UGC's Strategic Plan for Higher Education 2006–2016 is a central plan for higher education with a comprehensive set of recommendations based on a thorough review of the country's higher education system, including existing relevant policies and programs. The recommendations

include: enabling network infrastructure and connectivity, enhancing information and communication technology (ICT) capacity, enacting umbrella legislation covering all public universities, creating funding mechanisms to encourage research, developing ties between Bangladeshi and foreign universities, providing support for doctoral studies, forming a national search committee for vice chancellor appointments, setting up an accreditation council, and reorganizing university governing bodies for stronger governance.

The Perspective Plan for 2010–2021 proposes various objectives for higher education, as well as means for achieving them. These include encouraging the private sector to participate in the provision of college and university education, whether by establishing institutions or contributing to them; upgrading the technical institutes to university status; setting up new technical institutes at the greater-district level; establishing a university in the major town of each district; introducing teacher training and periodic refresher courses for university faculty; and providing incentive-linked compensation to quality instructors. However, it is critical to ensure more stringent quality assurance while expanding the system.

Reform agendas for higher education are also contained in the MOE's Financial Management Reform Program, which intends to increase accountability and transparency in the use of resources; and in the National Strategy for Accelerated Poverty Reduction II, which recommends several actions for higher education, such as establishing an accreditation council to improve and maintain the quality of education, and installing effective governing bodies in both government and nongovernment colleges.

Innovations in higher education are being promoted at public and private universities, with financial support from the UGC's Academic Innovation Fund and financial support from the World Bank. The Academic Innovation Fund provides a competitive financing mechanism for improving the research capacity of university faculty and raising the quality of higher education based on transparent selection criteria.

At the national level, improvement of access to higher education has been achieved through a more equitable geographic distribution of higher education institutions throughout the country, which helped redress the concentration of public and private universities in the capital, Dhaka. The government has been encouraging decentralization and the expansion of the number of universities in rural areas. The Private University Act 2010 has considerably relaxed the statutory reserve[1] for universities to be established in regions outside Dhaka city. Since 2009, several public universities have been established in locations accessible to rural students.

On the part of the higher education institutions themselves, successful initiatives include the introduction of modern teaching and student evaluation methods. At a few academic departments and institutes, particularly the Faculty of Business Studies and the Institute of Business Administration at the University of Dhaka, there has been a shift away from the traditional student-evaluation system, which is based solely on examinations, toward participatory teaching and learning approaches. In addition, more universities in Bangladesh

[1] The amount of reserve a private university has to maintain with a commercial bank in its own account as "security money" or as mandatory reserve.

are following a credit-based letter-grade system, with the grades determined by written exams, and by classroom activities, case analyses, and presentations, among other factors.

Bangladeshi universities such as North South University and East West University collaborate with universities in the United States, Australia, Canada, and elsewhere, in the areas of curriculum development, faculty and student exchange, and credit transfers. This cooperation has resulted in strategic alliances that are helping these universities pursue and benefit from knowledge transfer and quality improvement. Another initiative among the top universities in the country is engaging the services of senior executives from business and industry to teach classes along with the regular faculty, in order to enhance the relevance of academic programs to the job market.

Key Challenges

Bangladesh's higher education system faces numerous challenges which can be grouped into the following categories:

Equitable access. Along with the increase in total enrollment in higher education by 86% from 2001 to 2012, female enrollment rose from 25% of the student population to 42%, but disparities by gender and income still prevail. Two-thirds of higher education students come from the richest quintile; and state-sponsored loans and need-based scholarships are almost nonexistent, causing Bangladesh to lose out on considerable talent from its low-income population.

Quality and relevance. Disparity in quality between public and private institutions, and across individual institutions, is a major concern in higher education in Bangladesh. The UGC's Strategic Plan for Higher Education 2006–2016 reflects a particularly deep concern about the National University and its affiliated colleges and institutes. The National University system has no clear strategy for providing its students with the skills needed in the economy. Bangladesh needs quality human capital that can steer the nation toward its development vision, and the higher education system must respond to the demands of the economy by producing graduates equipped with strategic combinations of hard and soft skills.

Governance. The main challenge with respect to governance is how to balance autonomy with accountability. As public universities multiply in accordance with the government's commitment to establishing at least one public university in each greater district, accountability regarding performance has become a major concern.

Funding. The problem of underinvestment in higher education will have to be addressed if Bangladesh is to elevate its higher education institutions to international standards and to contribute to higher economic growth through skilled manpower. Increasing investment in higher education must be accompanied by a rationalized budgeting process at the public universities; it is currently based on traditional line-item budgeting, which dampens organizational innovation and management efficiency.

Next Steps for Reform

Equity of access. Boosting access to tertiary education will involve such interventions as expanding physical facilities in existing higher education institutions and/or creating new institutions, both public and private. Other options include (i) granting permission to foreign universities to open campuses in Bangladesh; (ii) providing facilities for e-learning at the tertiary level; and (iii) increasing support for private higher education institutions through land allocations, reduced statutory reserves, and tax incentives. A national level student loan scheme could also be introduced for meritorious but financially disadvantaged students.

Quality. Improvement in quality could be achieved by modernizing outdated curricula after a thorough review, improving instructional methods, offering professional development programs for faculty, and providing better facilities for academic research. The country's higher education system would also benefit significantly from the establishment of a national accreditation body for public and private institutions, one that would grant accreditation on the basis of a given set of standards. A particular focus would be the National University. With about 2,000 affiliated colleges and institutes, and about 70% of the country's tertiary level students, this university has been confronted with issues about less-qualified academic staff, poor logistics, and inadequate facilities. The National University requires major reforms.

Relevance. To ensure that higher education in Bangladesh remains relevant, taking into account the skills demanded in the job market, there should be a regular mechanism for conducting periodic tracer studies and analyses of labor force survey data, so as to facilitate well-informed and evidence-based policy making. In order to match supply and demand in terms of education and skills training, the MOE should develop medium-term and long-term higher education graduation plans, to be updated annually, and should instruct the universities to prepare their admissions policies accordingly. A particular concern is the need to modernize the madrassas by introducing academic courses to complement the religious curricula. In addition, ties with general education institutions, such as through knowledge-sharing programs, might enable the madrassas to better prepare their graduates for the job market.

Governance. Good governance is essential for enabling the higher education system to contribute to achieving the goals of the government's Perspective Plan for 2010–2021. There is an urgent need to overcome the barriers hindering the reshaping of higher education governance, which is relatively inflexible, politicized, and saddled with inappropriate structures of accountability. Here again, the National University system is of particular concern. For each private institution, the improvement of governance should be preceded by an adequate and clear definition of the roles and responsibilities of the trustee board, board of governors, syndicate, academic council, the chief executive officer, the vice chancellor, and the administration—based on a state-formulated set of uniform rules and statutes and by drawing on international good practices. These would be similar to the rules and statutes of the public universities, though with a substantial allowance for flexibility that could, for example, enable the private universities to develop their own internal rules.

Financial management. Capacity building for income generation should accompany other measures to diversify and increase the resources of higher education institutions. These other measures could include increasing tuition (and other charges) and engaging in income-generating activities. Higher education institutions should also be able to strengthen their ties with alumni and/or alumni associations, and the business community, within the framework of public–private partnerships and university–industry linkages. However, this needs to be backed by targeted scholarships and loan schemes to ensure that no eligible candidate is denied admission due to inability to pay.

Management information systems. Policy making and development planning for higher education must be able to draw upon reliable and regularly updated information system regarding various educational issues at tertiary institutions, including the nonuniversity institutions and higher education madrassas. This will require a functional and efficient system of information collection and management based on data from the institutions themselves and the concerned government agencies, and from data generated by tracer studies, among other sources.

Budget allocation. The historical budgeting system, which is still in use at public universities, should be replaced by a needs-oriented, zero-based budgeting system. It would be necessary to determine the actual needs of a university and then estimate the costs, as these calculations would form the basis for a budget proposal, with delineated estimates for recurrent expenses and necessary development expenditure.

CHAPTER 1
Socioeconomic Background

This chapter provides a brief view of the socioeconomic situation and the overall education policy context in Bangladesh. Please refer to Appendix 1 for further discussion of Bangladesh's socioeconomic conditions.

A. Population, Labor Force, and Employment

The population of Bangladesh stood at 148.6 million in 2010; it had been 111.5 million in 1991, and increased at an average annual growth rate of 1.6%.[1] The economically active segment (15 years old and above) constituted 67% of the population in 2010. The country's labor force had increased from 49.5 million in 2005 to 53.7 million in 2009, representing an average annual growth rate of 2.7%. Bangladesh's labor market thus needs to absorb a rapidly increasing number of entrants every year. Female participation is growing as well, although at a slower rate. The impact of education seems to have been a very powerful factor in the rise of female participation in the economy, not only by breaking down traditional barriers, but also by opening up new employment opportunities.

Unemployment in Bangladesh was 5% in 2010, with the rate slightly higher in rural (5.1%) than in urban areas (5.0%), and higher for females (7.7%) than for males (4.3%).[2] Among the nation's young people (18–35 years of age), 81 million were unemployed in 2009, representing a youth unemployment rate of 13% (13.2% for females and 12.9% for males), an increase of 1.1% over the rate in 2007.[3] As of 2008, an estimated 152 million young workers were living with their families on less than $1.25 per capita a day.[4] Although unemployment in the country is low, the rate of underemployment is 28.7%. Substantial underemployment exists in rural areas, home to 75% of the total population, as well as in urban areas; and it is higher for females than for males.[5]

The shares of the country's labor force working in the agricultural and nonagricultural sectors underwent some changes, shifting from agricultural to nonagricultural. Agriculture's

1 Government of Bangladesh, Ministry of Finance, Finance Division. 2012. *Bangladesh Economic Review 2011*. Dhaka. Appendix 63: Demographic Statistics. p. 323.
2 Government of Bangladesh, Ministry of Planning, Planning Division, Bangladesh Bureau of Statistics. 2010. *Monitoring of Employment Survey–2009*. Dhaka.
3 Government of Bangladesh, Prime Minister's Office. 2010. *Strategic Priorities of Digital Bangladesh*. Dhaka.
4 International Labour Organization (ILO). 2009. *Facts on Youth Employment*. Geneva.
5 The low unemployment rates could be partly attributed to the government's definition of "labor force" (which includes the active and inactive populations, unemployed and underemployed), and to the questionnaire used in the Labor Force Survey 2005–2006 for measuring the economically active and inactive populations.

share of the economically active population did increase: from 43.6% in 2005 to 48.1% in 2009. But the nonagricultural labor force increased far more significantly, both in terms of absolute numbers and percentages of the total. Manufacturing is an important part of the economy, its share ranging between 11% and 13%. The service sector provides higher employment opportunities for females.

Bangladesh was able to reduce the proportion of its population living in poverty from 58.8% in 1992 to an estimated 47.2% in 2007. Nevertheless, it remains one of the poorest countries in the world. The government is committed to implementing pro-poor policies and poverty-reduction programs, but the challenge is further exacerbated by the country's particular vulnerability to natural disasters such as sudden severe flooding, cyclones, and drought.[6] Economic growth has substantially reduced poverty, but it has been accompanied by higher inequality. To help achieve faster poverty reduction, one of the country's main strategies is to invest in education and training for the poor, so they will not be left behind by growth, and to improve access to education, which raises earnings and consumption.

B. Economic Growth

Bangladesh is classified by the United Nations (UN) as a "least developed country." Its economic structure is dominated by the service sector, which contributes around 50% to the gross domestic product (GDP), followed by industry, at an estimated 30%, and by agriculture, at 20%.[7] Bangladesh's economic growth remained steady during 1999–2010, with an average annual growth rate of 6.7%.[8] Its inflation rate was 9% for FY2011 and fiscal deficit less than 5% of GDP during the same year. It has experienced reasonably high private sector-led growth; substantial employment generation (particularly in the garment industry); relatively stable macroeconomic management; high foreign remittances; liberal agricultural policies; and pro-poor public expenditure geared toward improving rural infrastructure, resulting in increased rural employment.[9]

In FY2011, Bangladesh had a per capita GDP of $755, export growth of 10.3% (an increase of 42.0% over FY2010), import growth of 4.1%, a domestic savings rate of 19.6% of GDP, and a gradually decreasing public sector contribution to total national investment. Bangladesh's economy had also been resilient during the 2008–2009 global financial crisis and recession. Garment exports (totaling $12.3 billion) and remittances from Bangladeshis working overseas (totaling $9.7 billion) accounted for 10.8% of GDP in FY2009.[10]

6 Government of Bangladesh, Ministry of Primary and Mass Education. 2010. *Programme Document: Third Primary Education Development Prog3*. Draft for appraisal. Dhaka. The data on economic growth are taken from this source as well.

7 The principal components of the service sector include financial services, power and energy, transport, telecommunications, wholesale and retail trade, real estate, and port services. Principal industries include ready-made garments, textiles, chemical fertilizers, pharmaceuticals, tea processing, paper and newsprint, cement, light engineering, sugar, and leather goods.

8 Government of Bangladesh, Ministry of Finance, Finance Division, Economic Adviser's Wing. 2012. *Bangladesh Economic Review 2011*. Dhaka. This data is from 2010. All national-level data mentioned in this report have been taken from the *Bangladesh Economic Review*, which is considered to be the most authoritative source for data.

9 Government of Bangladesh, Ministry of Finance, Finance Division, Economic Adviser's Wing. 2012. *Bangladesh Economic Review 2011*. Dhaka. p. 3.

10 Dun and Bradstreet Rating Agency Bangladesh Ltd. 2010. *Bangladesh Top 500 Companies 2009*. Dhaka. p. xi.

In spite of these encouraging statistics, political instability, poor infrastructure, corruption, insufficient energy supplies,[11] overpopulation, weak governance, and the slow implementation of economic reforms have all contributed to Bangladesh's remaining among the world's least developed countries. Moreover, the 2008–2009 global financial crisis affected the performance of the country's two main growth drivers—exports and remittances. For example, the export growth rate in FY2009, 10.3%, was substantially lower than the 15.8% recorded for the previous fiscal year. By April 2010, however, exports were posting a growth rate of 19%.[12]

In order to remain on its desired growth trajectory, Bangladesh must effectively address existing challenges, among them: initiating projects to improve its weak infrastructure, attracting more foreign direct investment, keeping inflation at tolerable levels, overcoming the effects of the global economic slowdown, and addressing the country's insufficient energy supply. The adoption of an appropriate policy framework and proper regulatory reforms will be critical in addressing the emerging challenges that will likely confront the economy. More specifically, Bangladesh needs to solve its food deficit, further develop its textile industry, and identify new "manpower markets" in destination countries for Bangladeshi migrant workers.[13] To confront these challenges, the country will benefit from the competent graduates of institutions of higher education (especially in engineering and agriculture) in improving productivity at home and increasing the value of its citizens working abroad. For this reason, the Government of Bangladesh hopes to raise the educational profile of its labor force.

C. Overall Education Policies

The constitutional provision relevant to education says: "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 producing properly trained and motivated citizens to serve those needs; removing illiteracy within such time as may be determined by law."[14]

The government's key strategic areas of focus since the late 1990s have been economic growth, poverty reduction, and human resource development (HRD). The HRD priority is basic education, including primary and junior (or "lower") secondary. The adoption of the Education for All (EFA) agenda and the Millennium Development Goals shows the government's commitment to improving basic education. The government is also committed to eradicating illiteracy, reducing poverty by half, and achieving substantial improvements in HRD by the end of 2015.

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11 Severe power shortages are still a serious constraint on economic activity, but a number of new concessions have been pledged for energy-sector projects.

12 This information is from the finance minister's speech on the occasion of the presentation in Parliament of Bangladesh's national budget for FY2011.

13 The "manpower market" is the job market for migrant workers only. In Bangladesh, this term is used to refer to the foreign markets for Bangladeshi local workers. The term "labor market' is used to refer to the "market" for all workers including migrant workers.

14 Government of Bangladesh. 1972. *Constitution of the People's Republic of Bangladesh*, Article 17. Dhaka.

Bangladesh has achieved laudable improvements in primary education regarding gender balance. There are no gross enrollment rate (GER) and net enrollment rate (NER) data disaggregated for gender, but according to a government progress report in 2011, Bangladesh had already met its Millennium Development Goals for gender parity in primary and secondary education.[15] Bangladesh is also doing very well with regard to overall access to primary education: in 2009, its GER was 99% and NER was 91%.[16] However, the GER (57%) and NER (50%) for secondary education,[17] which provides the student population for higher education institutions, remain far less than those of other countries in the region.[18] Moreover, while access has improved in both primary and secondary education, low completion rates (50% for primary and 44.7% for secondary), and poor student achievement with respect to desired competencies and learning outcomes, reflect the formidable challenges involved in the effort to attain quality and efficiency. In addition, the overall adult literacy rate remains low, at 55%, with the female literacy rate only 49%.[19]

Bangladesh continues to make education of the general population one of its top priorities, and has therefore set up a number of programs and initiatives designed to help its people obtain an adequate level of education, regardless of gender or class. It has sought to reduce the dropout rate in both primary and secondary schools through various programs such as the Third Primary Education Development Program (PEDP III), using a sector-wide approach, and the Secondary Education Sector Development Program. There will have to be further improvements in various aspects of primary and secondary education if the Bangladeshi educational system is to supply qualified and quality graduates for tertiary education institutions. It is encouraging that there is a strong ownership and commitment by the government (as manifested in the development plans and national strategy papers) concerning access and equity (through increased enrollment, improved nonformal literacy training programs, and gender balance, among others), as well as quality and relevance of education.

15 Government of Bangladesh, Ministry of Planning , Planning Commission. 2012. *The Millennium Development Goals: Bangladesh Progress Report 2011*. Dhaka.

16 Government of Bangladesh, *The Millennium Development Goals*.

17 Government of Bangladesh, Ministry of Education, Bangladesh Bureau of Education Information and Statistics: 2011. *Bangladesh Education Statistics*. Dhaka.

18 The gross enrollment rate (GER) is the number of students enrolled at a specific level of education in a given academic year, regardless of age, expressed as a percentage of the officially prescribed age group for that level of education. The net enrollment rate (NER) is the number of students enrolled at a specific level of education in a given academic year, who are in the prescribed age group for that level, expressed as a percentage of the officially prescribed age group for that level of education.

19 Asian Development Bank. 2008. *Education Sector in Bangladesh: What Worked Well and Why under the Sector-Wide Approach*. Manila. p. 4.

CHAPTER 2
The Higher Education System

Before the establishment of the University of Dhaka, in 1921, higher education in what was then East Bengal (now Bangladesh) was overseen by the University of Calcutta. The second university offering general studies,[20] the University of Rajshahi, was established in 1953, followed by four more. The University of Dhaka was given an affiliating role after the partition of British India in 1947, when East Bengal became a province of Pakistan, and was known as East Pakistan. When Bangladesh achieved independence in 1971, the University of Dhaka continued its role as an affiliating university, concurrent with its main function of teaching, until the establishment of the National University in 1992. The National University then became the only affiliating university in Bangladesh. Before independence, Bangladesh had a total of six public universities: four universities that offered general studies (Universities of Dhaka, Rajshahi, Chittagong, and Jahangirnagar) and two technical universities (Bangladesh University of Engineering and Technology and Bangladesh Agricultural University).

Between 1971 and 1992, five more public universities were established. To keep pace with the growing demand for higher education, the government decided in 1992 to allow the establishment of private universities. Since 2010, when the most recently established universities became operational, Bangladesh has had a total of 90 universities. Of these, 34 are public, 54 are private, and 2 are international.[21] Of the public universities, 13 focus on general studies, 14 are technical universities (science and engineering universities, including a textile university), 4 are agricultural universities, 2 are medical universities, and 1 is a distance learning university (Bangladesh Open University).

Most of the country's 90 universities are located in the city of Dhaka and in the greater Dhaka area. There are 18 districts with public universities, 3 with private universities, and 2 with international universities. Dhaka had the largest concentration of universities, with 8 public and 45 private. The next is Chittagong, with 3 public, 6 private, and 1 international. Out of the country's 64 districts, 61 do not have any private universities,[22] and 47 districts did not have any public universities. A list of the public, private, and international universities in Bangladesh since 2010, with their locations, can be found in Appendix 2.

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20 In Bangladesh, general studies refer to all academic programs other than technical (engineering, agriculture, etc.) programs. General studies include such subjects as education, the humanities, the social sciences, law, and management.

21 International universities are not established, funded, and operated by the government; nor are they established under the Private University Act 1992 and funded or operated by a private group. Instead, they are established, funded, and operated by international organizations (See Chapter 2, section A).

22 However, if we consider the newly established private universities authorized in 2011 and 2012 (16 total), there would be 11 districts with private universities, and 53 districts without any private university. Most of the new universities are just preparing to launch their programs.

The government's intention to establish a public university in each of the 20 "greater districts" (also known as "old districts")[23] is based on its policy of expanding access to higher education in rural areas.[24] Thus, the urban–rural disparity in access to higher education is expected to diminish.

In addition, about 2,000 colleges and institutes offering bachelor's degree (pass and honors[25]) and master's degree programs are affiliated with the National University, which is itself a nonteaching university.[26] The higher education institutions in Bangladesh also include 5 autonomous institutes of technology, 2 institutes of accountancy (1 for chartered accountancy and 1 for cost and management accountancy), 59 colleges of law, 12 government colleges, 14 private medical schools, and 53 secondary-teacher training colleges.

In recent years, there has been significant growth in private higher education in Bangladesh, but most students are enrolled in public institutions. The higher education system continues to be dominated by public institutions, in contrast to many other countries.

A. Higher Education Policies and Development Plans

There is an implicit assumption in Bangladesh that universities will be comprehensive and will undertake both teaching and scholarly activities such as research.[27] According to the National Education Policy 2010, "The objectives of higher education are to generate knowledge and innovate new spheres of knowledge, and at the same time develop skilled manpower. For this, autonomy is imperative for the centers of higher education, including universities. But it will be implemented under a set of guidelines. A government monitoring system will be in place to gauge whether the allocated funding is being utilized in a proper way."[28] However, the tangible goals, measurable indicators, or standards implied by these objectives have not been defined. The National Education Policy 2010 does provide a

[23] Bangladesh originally had 21 districts, before the country was redivided into 64 districts during an administrative reorganization in 1982. The original 21 "old districts" are popularly known as the "greater districts."

[24] This information comes from the speeches of the Prime Minister and other government officials such as the Minister of Education.

[25] In Bangladesh, "pass" bachelor's degree programs take 3 years to complete, and "honors" bachelor's degree programs take 4 years.

[26] The National University does not offer any academic program. r. It is a public university authorized to affiliate colleges and institutes that offer degree-granting academic programs. It has its own rules and regulations for overseeing the affiliated institutions. The affiliated colleges and institutes offer academic programs (both undergraduate and graduate) following the curriculum of the National University; however, they cannot grant degrees, as the degrees are officially awarded by the National University. The National University conducts the examinations at all its affiliated institutions.

[27] Government of Bangladesh, University Grants Commission (UGC). 2006. *Strategic Plan for Higher Education*. Dhaka. p.4. Higher education in Bangladesh, as per the definition followed by the UGC, and for the purposes of this study, encompasses "university and university-college level education, comprising undergraduate, graduate comm and postgraduate programs in a wide selection of disciplines including humanities, social science, commerce, business and the sciences, technical, medical, agriculture, and nursing education and teachers' training." The higher education institutions include public, private, open and distance learning, and international universities.

[28] Government of Bangladesh, Ministry of Education. 2010. *National Education Policy 2010*. Dhaka. p. 23. English translation: http://www.moedu.gov.bd/index.php?option=com_content&task=view&id=338&Itemid=416

qualitative description of higher education goals and guidelines, which can be summarized as follows:

(i) providing effective world-class education and helping students to become inquisitive and to acquire humanitarian values;
(ii) promoting freedom of thought and developing students' ability to think critically;
(iii) reflecting the reality of the country in all areas of higher education pedagogy, identifying the problems of the nation and society, and developing educational programs geared to addressing those problems;
(iv) continuing a relentless application of knowledge and expanding the borders of knowledge through new, multifaceted basic and applied research;
(v) effectively acquainting students with the fast-paced and always-changing modern world; and
(vi) developing science-oriented, nonmaterialistic, liberal, humanistic, progressive, and farsighted citizens capable of taking the lead in every area of national life.[29]

The national policy-making bodies for higher education include the Parliament, the Ministry of Education (MOE), and the University Grants Commission (UGC). However, each university has the authority, by law, to frame its own internal policies, rules, and regulations through its senate or syndicate, within the broad framework of national laws and policies.

The UGC Strategic Plan for Higher Education 2006–2026 is the first of its kind in Bangladesh. It is a central plan that covers the entire higher education system, and spans 20 years. After reviewing the situation of higher education in the country, the plan presents its vision for the future, focusing on the key challenges of managing the higher education system, delivering quality education, enhancing the academic profession, building research capacity, achieving parity in information and communication technology (ICT), and developing and implementing policy.

A reform agenda for higher education is also included in the MOE's Financial Management Reform Program, which is intended to develop accountable and transparent institutional management and operational structures in order to achieve aggregate fiscal discipline, strategic prioritization of expenditure, and improved performance during budget execution. The program's overall goal is to improve the efficiency and effectiveness of resource allocation and to achieve more equitable and improved public service delivery.

The National Strategy for Accelerated Poverty Reduction II recommended several actions for higher education, such as (i) revising the Private University Act 1992; (ii) establishing a national accreditation council to improve and maintain the quality of education; (iii) installing effective governing bodies in public and private universities and nongovernment colleges; (iv) instituting a permanent salary commission and a separate service commission for faculty; (v) assessing the physical facilities and human resources of colleges, and applying the National University's rules before authorizing the opening of undergraduate honors and master's degree programs at these colleges; (vi) increasing the effectiveness of the National University; (vii) considering regional disparities when establishing new

[29] Government of Bangladesh, Ministry of Education. 2010. *National Education Policy 2010*. p. 23.

universities, and providing adequate resources to ensure quality higher education and research; (viii) initiating professional development and pedagogical training programs; (ix) creating job placement centers on every campus; (x) ensuring access to computer facilities with internet connections, libraries, etc., for the faculty and students; (xi) expanding the scope of science education and research; and (xii) paying higher salaries to faculty.

Public university laws. The first laws pertaining to higher education in Bangladesh were promulgated after the country's independence, giving universities focused on general subject areas sufficient autonomy in organizational management and academic affairs. The first law was the Dhaka University Order 1973, which gave new powers to the teaching and nonteaching staff, students, graduates, and other stakeholders at the University of Dhaka.[30] The law was applied to three other universities that same year. But while the University of Dhaka, the University of Rajshahi, University of Chittagong, and Jahangirnagar University are governed by the Dhaka University Order 1973, all public universities subsequently created by the government are regulated by their own laws. For example, the National University is regulated by the National University Act 1992, and the Bangladesh Open University by the Bangladesh Open University Act 1992.

Taking into account its primary objective of bringing uniformity to the overall management of the public university system, the UGC proposed the "Unified Umbrella Act" in 2008 as a common law to be applied to all public universities. Among its provisions, the proposed act stipulated uniform rules and regulations for (i) the recruitment of faculty and staff; (ii) the appointments of university vice chancellors, pro-vice chancellors, and treasurers; and (iii) the statutory bodies managing academic and administrative affairs. It was submitted to the government for consideration, but was not approved because the tenure of the government then expired and the subsequent government was not able to act on it.

Private university laws. In order to boost access to higher education, the government decided in 1992 to allow, for the first time, the private sector to establish universities. The result was the Private University Act 1992, which was revised in 1998. The establishment of private universities is currently regulated by the Private University Act 2010, which stipulates that any entrepreneur can establish a private university in any approved place in the country by filing an application with the MOE through the UGC. In response to the application, a temporary permission letter, good for a maximum period of 7 years,[31] will be issued by the UGC if the following conditions are fulfilled: (i) the establishment of a board of trustees with a minimum of 9 members and a maximum of 21; (ii) an owned or rented building of at least 25,000 square feet; (iii) adequate space and infrastructure for classrooms, a library, laboratory, auditorium, seminar rooms, offices, common rooms, and

[30] Government of Bangladesh, Ministry of Education. 1973. *Dhaka University Order 1973*. Dhaka. This was a revolutionary response to Dhaka University Ordinance 1961 (known as a "black law"), promulgated by the Government of Pakistan, which deliberately sought to take away all the powers of university faculties and administrators, and to centralize those powers into the hands of each university chancellor. The 1973 document was a clear response to the negative experiences of the 1960s, when the Pakistani government damaged the institutions, especially the University of Dhaka, the country's premier university at the time, by extending patronage to those who were seen as "loyalists" and harassing those who did not succumb to government pressure. This order was prepared by the highly qualified and dedicated senior faculty of the University of Dhaka, who had been actively involved in the independence struggle.

[31] The temporary permission may be renewed for another 5 years, however, subject to the approval of an application to the UGC, under Section 10 (2) of the Private University Act 2010.

other facilities; (iv) a minimum of three faculties and six departments; (v) an approved plan for academic activities; (vi) the appointment of a specified number of qualified faculty; (vii) a UGC-approved curriculum, including the number of seats for each subject; and (viii) a reserve fund at a scheduled bank (Tk50 million [$609,756] in the Dhaka and Chittagong metropolitan areas, Tk30 million [$365,854] in other metropolitan areas, and Tk15 million [$182,927] in all other areas of the country).

A private university possessing a temporary permission letter is required to apply to the UGC for a "charter" (*sanadpatra,*[32] i.e., final approval letter) after fulfilling the conditions specified in Section 9 of the Private Universities Act 2010.[33] Based on the recommendation of the UGC and the MOE, and with the approval of the chancellor, the government may declare the closure of a private university if it fails to apply for a charter or to comply with any of the terms and conditions of the temporary permission. Once the charter is issued, the document will contain the names of the town or other place in which the university is located and registered, and no change of location or opening of a new branch or affiliated campus will be allowed.[34]

A private university must have the prescribed bodies in place: a board of trustees, syndicate, academic council, faculties, institutes, curriculum committee, finance committee, faculty selection committee, and a disciplinary committee. It is also mandatory for private universities to have the following full-time employees: a vice chancellor, pro-vice chancellor, treasurer, registrar, controller of examinations, deans, directors, proctor, department heads, adviser for students, director of finance, public relations officer, and librarian.

International university laws. The two international universities in Bangladesh are the Islamic University of Technology (IUT) and the Asian University for Women. They have autonomy in the management of their affairs, including those concerning academic issues. The MOE performs nominal regulatory functions, while the UGC collects and compiles data from these universities as requested by the MOE. IUT was established as a university in 2001 by the Organization of the Islamic Conference (OIC), which is mandated to help develop the human resources of its member states in the fields of engineering, technology, and technical education by establishing undergraduate and graduate programs.[35] IUT is financed through contributions by the governments of OIC member-states, and the

[32] *Sanadpatra* is the Bengali word for "charter," which is a certificate issued by the Ministry of Education (MOE) that enables a university to operate its academic programs on a permanent basis.

[33] The following conditions are set out in Section 9 of the Private University Act 2010: (i) the university must own the title to a minimum 1 acre of land (Dhaka and Chittagong metropolitan areas) or 2 acres of land (for other areas) without any encumbrances; (ii) it must establish on its own property a permanent infrastructure according to the plan approved by the appropriate authorities; (iii) it must not transfer its land to any individual or institution; (iv) it must preserve at least 6% of its total seats for specific categories of students (3% for children of freedom fighters and 3% for qualified students from disadvantaged areas), and will submit a list of such students to the UGC (this provision means that the private universities have to offer seats to qualified students from these two categories without any tuition fees); (v) it must ensure student safety on campus; and (vi) it must spend a portion of its annual budget (as approved by the UGC) on research.

[34] There are substantial differences between the Private University Act 1992 (which was amended in 1998) and the Private University Act 2010, especially with regard to the requirements for setting up a private university.

[35] This institution was originally established in 1981 as the Islamic Centre for Technical and Vocational Training and Research (ICTVTR) through a resolution of the 9th Islamic Conference of Foreign Ministers (ICFM), held in Dakar, Senegal, in 1978. It was renamed the Islamic Institute of Technology (IIT) in 1994 by the 22nd ICFM, held in Casablanca, Morocco; and was given its current name at the 28th ICFM, held in Bamako, Mali.

internal rules and regulations of the university are approved by the Islamic Conference of Foreign Ministers in accordance with the OIC's personnel and financial regulations. The IUT General Assembly determines major policies; provides overall guidance; elects the members of the governing board; and considers and submits for the approval of the Islamic Conference of Foreign Ministers the final accounts of the university, after these have been audited by the OIC's financial control office.

The Asian University for Women, on the other hand, is funded by the Asian University for Women Support Foundation, a nonprofit organization based in the US, and by a network of private individuals and organizations. The university commenced its operations in 2009 at its campus, which is located in Chittagong. Starting with 40 faculty members and 296 students, the university now has a student body of 535 hailing from 12 countries of Asia and the Middle East.[36] It is mandated to provide higher education to young women from diverse cultural, religious, and socioeconomic backgrounds across South Asia, Southeast Asia, and the Middle East. And it offers a liberal arts education combined with socially relevant graduate and professional training.[37]

B. Structure and Scope of Higher Education in Bangladesh

Higher education has three streams. The first is the general stream, which includes the pure and applied sciences, the arts, business, social sciences, and humanities. It consists of two programs: the bachelor's degree (pass), which takes 3 years, and the bachelor's degree (honors), which takes 4 years. For holders of the bachelor's degree (pass), earning a master's degree will require 2 years of additional schooling, while honors course graduates will just need 1 additional year. The second stream is madrassa education. The third is technological education, including engineering, agriculture, business, medicine, and ICT. For all of these subject areas, with the exception of medicine, a total of 5 years is required to complete one's studies up to a master's degree, after completing higher secondary education.

At all levels of schooling, students can choose to receive their education in English or Bangla (Bengali). Although English is not officially declared to be the only medium of instruction in tertiary education, it is the medium of instruction in most disciplines, especially at universities (both public and private). The majority of students choose English, as it offers much better job prospects after graduation.

The higher education system consists of undergraduate programs, which grant bachelor's degrees, and graduate programs, which grant master's, master of philosophy (MPhil), and doctor of philosophy (PhD) degrees (Table 1). However, the 4-year bachelor's degree programs, master's programs, and professional degree programs in medicine and

[36] Government of Bangladesh, University Grants Commission. 2010. *Handbook: Universities of Bangladesh, 2009*. Dhaka. p. 376; Asian University for Women. http://asian-university.org/

[37] There is currently no information available from the UGC or the university's website (www.asian-university.org) regarding the legal foundation for the Asian University for Women.

Table 1: Duration of Undergraduate and Graduate Programs

Degrees	Duration
Bachelor's (pass)	3 years (previously 2 years)
Bachelor's (honors)/4-year bachelor	4 years
Master's (for 4-year bachelor's degree holders)	1 year
Master's (for pass and 3-year bachelor's degree holders)	2 years
Professional first degree (bachelor's degree in medicine, engineering, architecture, etc.)	5 years
Master of philosophy (MPhil)	2 years
Doctor of philosophy (PhD)	3 years (minimum, after master's degree)[a]

[a] Government of Bangladesh, Ministry of Education. 2010. *National Education Policy 2010*. Dhaka. This policy stipulates that, master's degrees, MPhil degrees, and doctorates are to be regarded as specialized education (p. 24).

Source: Government of Bangladesh, Ministry of Primary and Mass Education. 2003. *Education for All: National Plan of Action II, 2003-2015*. Dhaka. Table 3.8 (no page number). The author also collected data from different universities, both public and private.

engineering are the most popular among students. Other programs are less attractive mainly because there is less demand for their graduates in the job market.

The public and private universities are permitted by the government to grant degrees to students who successfully complete their courses of study, but only public universities offer MPhil and PhD degree programs. Private universities can offer masters degree that are not MPhil. The UGC is the only government body that oversees the activities of public and private universities, although it has little authority to take any punitive measures against any university for academic or administrative mismanagement. It can only refer such matters to the MOE or to the chancellor of the university in question.

C. Organization and Management

While primary education (grades 1–5) is managed by the Ministry of Primary and Mass Education, the MOE is responsible for planning, policy making, guidance, and control regarding the development of secondary and higher education, technical and vocational education, and madrassa education. It implements policies, plans, and programs for education through various line directorates, including the Directorate for Secondary and Higher Education, which is responsible for the management and supervision of secondary education (grades 9–10, ages 14–15), higher secondary education (grades 11–12, ages 16–17), and tertiary institutions.[38] While the MOE has an all-encompassing role in higher education management, other institutions have more specific roles. The UGC, for example, is responsible for the supervision and allocation of government grants to public universities, as well as for overseeing the activities of the private universities. As a public

[38] Also within the MOE is the Directorate of Technical Education, which is responsible for the management, administration, and supervision of technical and vocational institutions. The directorate has inspectorate offices at the divisional headquarters.

affiliating university,[39] the National University is responsible for the academic control of the bachelor's and master's degree programs at all of its affiliated colleges, in addition to conducting the examinations for these programs. Except for paying salaries to the faculty and staff of government colleges affiliated with the National University,[40] the Directorate of Secondary and Higher Education (DSHE) has no direct relationship with the National University. Figure 1 shows the organizational structure of higher education in Bangladesh.

University Grants Commission (UGC). The UGC was established in 1973 to serve as an intermediary between the government and the universities, and to safeguard the universities' autonomous character. It allocates government grants to public universities and supervises the operations of both public and private universities.[41]

As the statutory body overseeing all universities in the country, the UGC is tasked with promoting and coordinating university education, monitoring and maintaining educational standards, assessing the financial needs of public universities, and advising the government on various university-related issues. Although it does not deal with the financial affairs of private universities, the UGC, through its Private University Division, supervises and coordinates their activities and advises the government on the formulation of appropriate policies for private higher education. In addition, it has the authority to grant permission to public universities to establish new faculty positions to ensure that public universities, which are almost fully dependent on government funding, do not undertake any unnecessary expansion, either physical expansion to accommodate additional "academic faculties" or expansion of the academic staff.

The UGC does not play a managerial role. Rather, it acts as a "spokesperson" and a regulatory body for the universities. The UGC is directly accountable to the MOE and to the Parliament, which approves its annual budget.

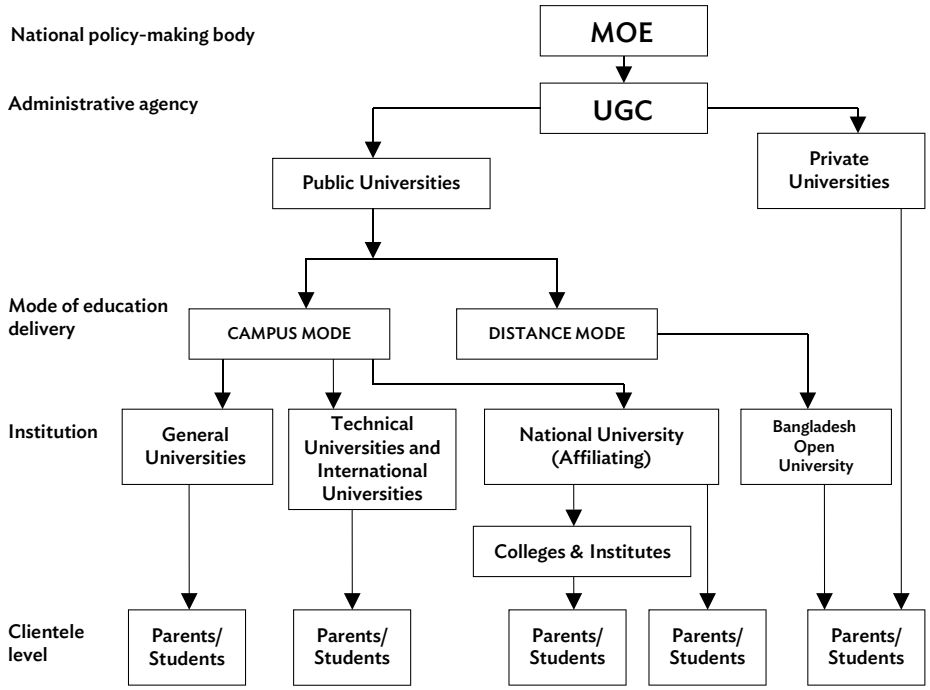
Statutory bodies within universities. Public universities in Bangladesh are autonomous institutions administered by their own statutory bodies (senate, syndicate or board of governors, academic council, board of advanced studies, etc.) in accordance with the provisions of the legal documents pertaining to each university. Some universities hold elections for most of their key offices, in the expectation that this practice will help preserve academic freedom. For instance, at the University of Dhaka, the members of the senate (104), syndicate (17), and the administrators in the Office of the Deans are

[39] Affiliation refers to the enlistment of a degree-granting college or institute that fulfills the prescribed conditions set by the National University, such as the specific amount of land, number of students and faculty members, qualifications of faculty members, size of the library, etc.

[40] Government colleges are under the joint administrative control of the MOE and the Directorate of Secondary and Higher Education, but are under the academic control of the affiliating university.

[41] Government of Bangladesh, UGC. 2008 . *University Grants Commission of Bangladesh: A Profile.* Dhaka. pp. 6-8. The major functions of the UGC, as described in this document, are to (i) assess the needs of and formulate plans for the development of university education; (ii) determine the financial needs of public universities; (iii) receive funds from the government and allocate and disburse grants to the public universities for their maintenance and development; (iv) evaluate the programs under implementation for developing university departments, institutes, and other constituent institutions; (v) examine all types of university development plans; (vii) collect statistical and other information on university matters; (vii) advise the government on the establishment of new universities or on proposals for the expansion of existing universities; and (viii) advise the government on proposals to grant special degree-awarding status to colleges that may be considered suitable for such functions.

Figure 1: Organizational Structure of Higher Education in Bangladesh



MOE = Ministry of Education, UGC = University Grants Commission.

Source: M. Alam et al. 2007. *Private Higher Education in Bangladesh*. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO), International Institute for Education Planning (IIEP).

elected.[42] The vice chancellor is appointed from among three candidates elected by the senate. The senate is chaired by the vice chancellor and includes as members the pro-vice chancellor, the treasurer, representatives from the government (5), members of Parliament (5), distinguished educators (5), representatives of research bodies (5), principals (5), and faculty members (10) of affiliated or constituent colleges,[43] university alumni (25), university faculty representatives (35), student representatives (5), and the chair of the Board of Intermediate and Secondary Education. Because it is broadly representative of the university, the senate can function smoothly and adopt policies and programs that respond to society's needs and promote the university's educational objectives.

The syndicate of the University of Dhaka, which serves as the executive body of the university, is composed of the vice chancellor, pro-vice chancellor, college principals (2), university faculty (6), representatives of the senate (2), chancellor nominees (3), a government official, and a distinguished citizen nominated by the senate.

[42] The figures in parentheses in this and the subsequent paragraphs pertain only to the University of Dhaka. Other universities have different numbers for each of their statutory bodies.

[43] University of Dhaka still has some affiliated colleges.

Other public universities have autonomy in academic affairs as well, except that the vice chancellor, the pro-vice chancellors, and the treasurer are appointed by the government; and the prime minister serves as the ex-officio chancellor.

The private universities are largely outside the domain of government control, except for certain specific aspects such as obtaining and renewing recognition, establishing permanent campuses, maintaining statutory reserves at scheduled banks, and complying with the requirements for creating academic departments. A private university is managed by its board of trustees, syndicate, and academic council. The government has no specific national level body for quality assurance at public or private universities, madrassas, or tertiary level technical institutions.

The National University. Established through the National University Act 1992, the National University has features distinct from those of traditional public universities. Foremost among these is the power to grant affiliation to public and private colleges and to other tertiary level institutions (except public and private universities). Affiliation is granted on the basis of an institution's satisfactory fulfillment of specified preconditions pertaining to its physical facilities, library collection, classrooms, faculty, and students. The National University develops a uniform curriculum for all its affiliated institutions, conducts examinations at the bachelor's and master's levels, and awards degrees to the graduates of these institutions. According to the introductory statement in the National University Act 1992, it has the "responsibility for all matters relating to, and the administration of, colleges, including the modernization and improvement of syllabi and curricula on the graduate and postgraduate level of college education, the raising of the qualitative standard of education, and the training and improvement of the efficiency of teachers."[44]

In addition to general degree colleges, the National University has also affiliated the teachers' training colleges, the College of Special Education, the Defense Services Command and Staff College, the Military Academy, the Naval Academy, the Air Force Academy, law colleges, the Institute of Bank Management, and the Bangladesh Institute of Technology, and supervises their affairs. Consequently, it conducts 37 types of public examinations.[45]

Although National University affiliates offer 2-year pass, 3- or 4-year honors, 1-year master's (preliminary), and 1-year master's (final) degree programs, there are substantial differences in the courses taught at these institutions and those taught in the universities. The syllabus followed by the affiliates is prepared by the National University, and it is the same for all of them; but each teaching university has its own different syllabus. As a nonteaching university, the National University endeavors to provide standards and quality assurance for its affiliated institutions. And it is worth noting that no tertiary level colleges or institutes can operate without affiliation with the National University.

Teaching staff at affiliated government-financed colleges and institutes are appointed by the Bangladesh Public Service Commission, a government agency, while academic staff

[44] National University Act 1992, Act No. 37 of 1992.

[45] M. Ullah. 1997. *Mainstreaming of Higher Education through National University. Proceedings of the National Seminar on the Methods of Education at the University Level*. Dhaka.

at private affiliated colleges and institutes are selected by their own governing bodies. Although the National University is a government entity, only its government-financed affiliates are within the domain of the public sector. The remaining institutions are financed and administrated by the private sector.

Bangladesh Open University. The Bangladesh Open University Act 1992 regulates the activities of the Bangladesh Open University (BOU), the country's only distance education university. It was established with financial assistance from both the government and the Asian Development Bank (ADB). Section 5 of the act states that BOU's objective is to "create skilled manpower by providing access to education and knowledge for all levels of people, promoting quality education and reaching the people through use of all types of communication technologies."[46] Educational materials used by BOU include textbooks, study guides, radio and television broadcasts, audiocassettes, uploaded e-books in the university's websites, video and audio lectures on YouTube, WebRadio, and weekend face-to-face tutorials.

Bangladesh Medical and Dental Council. The Bangladesh Medical and Dental Council provides academic recognition of specialist degrees. Established through the Medical Council Act 1973 (amended in 1980 and 2000), the council is the body responsible for the registration of MBBS, MS, MD, and MPhil degrees; FCPS, MRCP, FRCS, and FRCP certifications; and graduate programs.[47]

Stakeholders' organizations. The main organizational stakeholders in the public higher education system include the MOE, the Ministry of Finance, the DSHE, the UGC, Bangladesh Bureau of Educational Information and Statistics, the development partners that provide universities with funding for educational development, associations of academic and nonacademic staff, student unions, and the student wings of political parties. The same holds true for private institutions, with a few exceptions: there is no evidence that any of the private universities have either a faculty/staff association or a student union or student wings of political parties, nor is influenced directly or indirectly by DSHE.

The political parties' concerns about public universities are expressed through their student unions. Public university alumni maintain their relationships with their alma maters through their elected representatives in the university senates. In addition to their associations, the academic staffs play active roles in university administration by electing a specified number of representatives to the senate and syndicate. At the public universities, there are separate staff associations for every category of employee (e.g., officers, as well as Class III, Class IV, and technical employees). These employee associations have practically no involvement in the administration of the universities, but they are active in bargaining with the university administration on employment-related issues.

[46] Bangladesh Open University Act, 1992, Act No. 38 of 1992 (Bengali version), Section 5. *Bangladesh Gazette*, October 21, 1992.

[47] Staff Correspondent. 2010. News Report. *Prothom Alo*. 11 December. Note that MBBS = bachelor of medicine, bachelor of surgery (Medicinae Baccalaureus, Baccalaureus Chirurgiae), MS = master of science, MD = doctor of medicine, and MPhil = master of philosophy, FCPS = Fellow of the College of Physicians and Surgeons, MRCP = Membership of the Royal Colleges of Physicians, FRCS = Fellowship of Royal College of Surgeons, and FRCP = Fellowship of Royal College of Physicians.

D. University Autonomy and Accountability

As stipulated in their respective legislative acts, the public universities enjoy considerable autonomy in managing their own affairs. Officials and academics at public universities view their institutions as having an acceptable degree of autonomy in academic and administrative affairs. However, there are often allegations that whichever political party is in power tends to influence the appointments of high-level administrators (e.g., vice chancellor, pro-vice chancellor, and treasurer), thereby risking effective and efficient university governance with the possibility of appointing administrators who may be lacking in experience or qualifications. This type of influence cannot be considered interference from the government, but this issue could be addressed by forming an independent national search committee to look for willing and qualified persons to fill these administrative positions. Amendments to existing pertinent laws would be necessary before this action could be taken.

The public universities depend almost completely on the public exchequer for their academic and development funding, with the government's support covering more than 85% of their revenues and development expenditures. Such dependence is becoming deeper due to the resistance from the students to any increases in tuition or other costs, and to the absence of support from the national political parties for any such measures. As a result, public universities may find themselves without sufficient autonomy to sustain their spending on priorities such as research programs, as the government might not approve the necessary funds. Moreover, the universities do not have a strong relationship with the private sector, especially not with businesses, which might be able to make up for the universities' funding shortfalls.

As mentioned earlier, the public universities are accountable to their senates, which are composed of the chancellor and representatives of the university faculty, graduates, and the government (Parliament). The senate formulates the policies for the university's internal management, while the syndicate, as the management body, executes the senate's policies. During the senate sessions, members can ask for explanations regarding any issue of interest. The chair (vice chancellor) then provides explanations with the assistance of the administrative staff (pro-vice chancellor, treasurer, controller, registrar, et al).

Private universities, on the other hand, are accountable only to their own statutory bodies. The vice chancellor, as the chief executive officer, performs all the necessary activities for providing educational programs, and remains answerable to the board and to the syndicate.

The growth of private universities is considered a positive development for higher education in the country. But an assessment by the UGC in 2006 revealed that, out of the total of 54 universities in the private sector, only 9 universities were performing "highly satisfactorily,"[48] while 10 were performing "well" within acceptable standards of teaching,

[48] The universities performing "highly satisfactorily" were: North South University; International Islamic University Chittagong; Independent University, Bangladesh; East West University; American International University – Bangladesh; Ahsanullah University of Science and Technology; International Business Administration and Information System University; University of Alternative Development and BRAC University. The three universities that continued to fail and were, therefore, dissolved: Queens University, America-Bangladesh University, and Central Women's University.

learning, student intake, and the marketability of their graduates. However, the remaining 36 universities were unable to satisfy the critical minimum indicators of performance.[49] Subsequently, the UGC gave the "defaulter" universities a timetable for gradually meeting its standards. Of these 36 universities, 3 continued to fail and were consequently dissolved. The others are still under "observation" by the UGC. All private universities are now required to strictly follow the provisions set out in the Private University Act 2010.

E. Staffing Patterns

Number and qualifications. As of 2012, public universities had 2,981 professors; 1,615 associate professors; 3,140 assistant professors; 2,539 lecturers; and 293 other academic staff, including demonstrators. This represented a significant increase in academic staffing since 2001. About 35% (3,703) of the teaching staff had PhD degrees in 2012. Although this figure was higher than that recorded in 2001, in terms of percentage it represented a 3 percentage points decline from 2001 (Table 2).

Table 2: Academic Staff by Qualifications and Rank (Public Universities), 2001–2012

		Qualifications		Rank				
Year	Number of Academic Staff	PhD Degree	Other Degrees	Professors	Associate Professors	Assistant Professors	Lecturers	Others
2001	5,187	1,982	3,205	1,707	821	1,462	1,095	102
2002	5,467	2,103	3,364	1,785	860	1,492	1,231	99
2003	6,172	2,212	3,960	1,887	1,049	1,683	1,445	108
2004	6,462	2,353	4,109	1,939	983	2,011	1,417	112
2005	6,921	2,323	4,598	2,048	1,113	2,099	1,408	253
2006	7,905	2,416	5,489	2,300	1,251	2,473	1,848	33
2007	7,968	2,671	5,297	2,453	1,338	2,418	1,731	28
2008	8,320	2,796	5,524	2,524	1,398	2,709	1,644	45
2009	9,229	3,081	6,148	2,796	1,651	2,824	1,854	104
2010	9,545	3,056	6,489	2,700	1,589	3,005	2,108	143
2011	9,781	3,570	6,211	2,770	1,612	2,893	2,368	138
2012	10,568	3,703	6,865	2,981	1,615	3,140	2,539	293

Note:
1. The years indicate academic year running from January to December.
2. The "Others" category included demonstrators, junior lecturers, etc.

Source: Government of Bangladesh, University Grants Commission. Annual reports from 2001 to 2012. Dhaka.

[49] Government of Bangladesh, University Grants Commission. 2006. *Report of the High Powered Committee on Private Universities*. Dhaka. The UGC used 10 criteria for evaluating the performance of private universities: number of students and faculty; the environment of the library and number of books; number of laboratories and adequacy of the instruments, including computers; internet facilities for faculty and students; academic activities and entry qualifications for students; the ratio of faculty to students; evaluation of faculty members by the students; extracurricular activities; size of the campus; and the reputation of the university.

Although several public universities have graduate programs offering MPhil, PhD, and other degrees, the faculty in these programs are generally demoralized, primarily due to the inadequate availability of secondary materials,[50] the long time it takes for students to complete their programs, and a fascination for foreign degrees.

Gender. During 2001–2012, females comprised over 33% of student enrollment at the public universities, but they comprised only 15%–19% of the faculty (Figure 2). This disparity was mainly due to the lack of female graduates with the necessary qualifications for university positions. The public universities traditionally recruit faculty, especially at the entry level, from among the graduates with first-class degrees and distinctions in all public examinations, from the secondary to the master's level (though sometimes with less stringent requirements for PhD candidates).[51] Females with the required qualifications can apply and take oral exams. All the public universities are equal opportunity employers, both by law and in practice. Generally, no gender discrimination has been found in the recruitment process.

Figure 2: Academic Staff by Gender (Public Universities), 2001–2012

Note: Gender-segregated data are not available for the faculties of private universities.

Source: Government of Bangladesh, University Grants Commission. Annual reports from 2001 to 2009. Dhaka.

Private universities. Table 3 presents data on the academic staff of private universities by type of employment (i.e., full-time or part-time). In 2003, faculty at all the private universities totaled 4,319, including 1,704 part-timers. By 2009, this number had increased to 9,115, including 3,405 part-timers. It appears that the private universities had become substantially dependent on part-time faculty, which constituted 37.4% of all faculty

[50] These include books, scholarly journals, published research papers and reports, etc.

[51] "First-class" is the highest level of achievement in the exams in degree programs. In the traditional examination system, students are awarded first class when they have achieved an average of at least 60% in all subjects.

members in 2009. This dependence is now being addressed, and in 2012, the proportion was down to 32.5%. Public universities, on the other hand, have few part-timers.[52] Academics are generally uninterested in working as part-time or adjunct faculty at public universities, perhaps due to the unattractive benefits packages. While a few adjunct faculty members can be found at the University of Dhaka, they are primarily motivated by the opportunity to enhance their social status, and by a desire to contribute to national development.

Table 3: Number of Faculty Members by Type of Employment (Private Universities), 2001–2012

Year	Full-Time Teachers	Part-Time Teachers	Percentage of Part-Time Teachers	Total
2001	...	...	...	2,019
2002	...	...	...	2,747
2003	2,615	1,704	39.5	4,319
2004	2,749	1,869	40.5	4,618
2005	3,248	2,566	44.0	5,814
2006	3,668	3,022	45.0	6,690
2007	4,343	3,628	45.5	7,971
2008	4,821	2,543	34.5	7,364
2009	5,710	3,405	37.4	9,115
2010	6,290	3,394	35.0	9,684
2011	6,997	3,258	31.8	10,255
2012	8,178	3,935	32.5	12,113

... = No data available.

Source: Government of Bangladesh, University Grants Commission. Annual reports from 2001 to 2012. Dhaka.

Student–teacher ratios. Overall, the average student–teacher ratio at the public universities rose from 14:1 in 2001 to 20:1 in 2009. Such high ratios indicate overstaffing, which results in the inefficient utilization of human resources. The top universities specializing in general studies had high average student–teacher ratios, ranging from 19:1 to 35:1 (straddling the international standard for developing countries, 30:1). The specialized institutions, such as agricultural universities, had lower average student–teacher ratios, ranging from 6:1 to 14:1. The average student–teacher ratios rose at the private universities during 2007–2009, perhaps due to an increase in student enrollment. The average ratios varied greatly across institutions, from a low of 10:1 to a high of 51:1.

[52] There is no data is collected centrally by the UGC on the number of part-time faculty members at public universities. The reason may be that the public universities rarely hire part-time faculty, as they are allocated enough government funding to recruit the required number of full-time teaching staff.

F. Education Financing

In FY2011, the government's spending on education was equivalent to 2.3% of gross domestic product (GDP). This amounted to Tk179.3 billion, a significant increase over the expenditure of Tk107.1 billion in FY2007.[53]

Share of education in the national budget. Based on the report from the public exchequer for the period from 2005 to 2010, education's share of the government's annual budget averaged 15.7% (about Tk128.8 billion). Education generally accounts for the largest share of any program expenditure in the national budget. Of the total budget for education, primary education received the largest share—about 45% on average. The combined share of secondary and higher education averaged 55.3% (about Tk71.2 billion).[54] The recurrent expenditure for secondary and higher education during 2005–2010 averaged Tk59.2 billion, while the average for development spending was about Tk12 billion (Table 4).

As shown in Table 5, the MOE's share of total education development expenditure in FY2011 was very small, just 0.23%—a decline from 0.84% in FY2009. Public universities normally receive about 8% of the total education budget, but an estimate by the UGC indicated that the public universities' portion decreased by more than 0.3% from 1999 to 2008.[55]

Public expenditure on higher education. The MOE is responsible for administering the government's funding for public universities, and does this through the UGC. As previously stated, public universities receive an average of about 85% of their income from the government,[56] and this support is given in the form of grants for recurrent and development spending. The total expenditure of the public universities in FY2010 stood at Tk8.5 billion, of which 94.3%, or just over Tk8.0 billion ($97.6 million), came from the government. This amount was equivalent to an expenditure of $586 per student. On average, government subsidies per student at the country's premier universities have been estimated at Tk77,359 ($943) per year for agricultural studies, Tk35,519 ($433) for engineering, and Tk154,430 ($1,883) for medical training.[57]

Compared with India and some Southeast Asian countries (such as Malaysia and Thailand), government spending on higher education as a percentage of the overall education budget is very low in Bangladesh. For example, in 2005, higher education's share of the total education budget was 8.9%,[58] while it was 20.3% in India, 33.3% in Malaysia, and 19.2% in Thailand. And Bangladesh spends only the equivalent of 0.12% of its GDP on higher education.

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53 Government of Bangladesh, Ministry of Finance. 2010. *National Budget, 2010–2011*. Dhaka; Government of Bangladesh, Ministry of Primary and Mass Education, Directorate of Primary Education. 2010. *Programme Document: Third Primary Education Development Prog3*. Dhaka.

54 Segregated data for secondary and higher education were not available.

55 Government of Bangladesh, UGC. 2009. *Annual Report - 2009*. Dhaka. p. 33.

56 Government of Bangladesh, UGC. *Annual Report - 2009*; UGC, *Annual Report - 2010*. Dhaka.

57 Government of Bangladesh, UGC. 2006. *Strategic Plan for Higher Education in Bangladesh 2006–2026*. Dhaka. p. 10.

58 This figure refers only to universities.

Table 4: Education Expenditure as a Percentage of Total Government Allocations, 2005–2011 (Tk billion)

Fiscal Year	Total Government Allocations			Government Allocations to the Education Sector			Education Sector Revenue Expenditure[a]			Education Sector Development Expenditure[a]		
	Total	Revenue	Development	Total[b]	Primary	Higher than Primary[c]	Total	Primary	Higher than primary	Total	Primary	Higher than Primary
2006	603.3	380.7	222.6	91.0 (15.8)	38.2	52.8 (58)	63.5	21.2	42.2	27.6	17.0	10.6
2007	636.6	420.6	216.1	107.1 (16.8)	50.0	57.1 (53.3)	79.1	32.0	47.1	28.0	18.0	10.0
2008	747.5	522.5	225.0	114.3 (15.3)	52.7	61.6 (53.9)	85.5	33.9	51.6	28.9	18.9	10.0
2009	856.8	626.8	230.0	123.0 (14.3)	55.8	67.2 (54.6)	92.0	34.6	57.3	31.0	21.1	9.9
2010	972.1	687.1	285.0	157.9 (16.2)	68.4	89.5 (56.7)	115.4	40.2	75.2	42.5	28.2	14.3
2011	1,137.3	752.3	385.0	179.3 (15.7)	80.6	98.7 (55.0)	130.3	48.6	81.8	48.9	32.1	16.9

Tk = taka (Bangladesh currency)

[a] "Revenue" expenditure is synonymous with recurrent expenditure, and "development" expenditure is synonymous with capital expenditure.
[b] The parentheses in this column indicate the percentages of the government budget allocated to the whole education sector.
[c] The parentheses in this column indicate the percentages of education expenditure allocated altogether to the lower ("or junior") secondary, secondary, higher secondary, and tertiary levels.

Sources: Government of Bangladesh, Ministry of Finance. National budget documents for the years 2005 –2010.

Table 5: Education Development Budget Allocations, 2009–2011 (Tk)

Education Development	FY2009	FY2010	FY2011
Secondary, Higher Secondary, and College Education	4,785,000,000 (47.82%)	7,920,800,000 (55.36%)	9,300,400,000 (57.24%)
Engineering Education	2,625,300,000 (26.24%)	2,710,100,000 (18.94%)	1,170,000,000 (7.20%)
Technical and Vocational Education	830,100,000 (8.30%)	971,600,000 (6.79%)	2,336,400,000 (14.38%)
University Grants Commission	1,681,100,000 (16.80%)	2,610,800,000 (18.25%)	3,403,000,000 (21.00%)
Ministry of Education	83,900,000 (0.84%)	94,700,000 (0.66%)	37,100,000 (0.23%)
Total	10,005,400,000	14,308,000,000	16,246,900,000

Tk = taka (Bangladesh currency).

Source: Government of Bangladesh, Ministry of Education.

In 2010, higher education's share of the total education budget was about 11%,[59] which was still among the lowest in South Asia. Development expenditure comprised 8%–10% of the higher education budget, while recurrent expenditure comprised about 90%.

For public universities, the proportion of recurrent expenditure increased almost threefold, from Tk253.51 million in 1999 (then 5.79% of the total budget for public universities) to Tk732.05 million in 2008 (16.71%).[60] This increase can be attributed to the expansion in the number of public universities during this period. An analysis of the UGC records for FY2010 recurrent expenditures (Tk891.28 million) by public universities reveals that academic services (academic salaries and teaching support) made up 74%; while administrative services accounted for 11%; maintenance 3%; and other recurrent expenditures, such as pensions and procurement (of consumables), amounted to 12%.

There is no evidence of any significant improvement in the public universities' share of the national education budget. Compared with the increase in the total national budget, the universities' share has actually decreased (Table 6). This is despite the recognition that improving the quality of higher education is vital for achieving the Millennium Development Goals and the government's higher education midterm objectives, as delineated in the MOE's *Medium-Term Budgetary Framework 2010–2011 to 2012–2013*, and in various government policy papers. In this era of globalization, in which many countries are striving to develop highly competitive knowledge-based economies, Bangladesh has to put in place an enabling framework to encourage higher education institutions to be more research- and innovation-oriented, in order to ensure effective human capital development. Thus, increased funding allocations for higher education development are an absolute necessity if the nation is to survive in the competitive global economy.

Cost recovery. Another important issue in financing education is cost recovery. Tuition at the public universities, which is highly subsidized, has remained almost unchanged since 1960. At the University of Dhaka, for instance, annual tuition remained at just Tk180–Tk300 ($2.20– $3.70) from 2001 to 2009. Student fees covered only 1% of per-student costs at the public university level in Bangladesh, compared with 29% in India.[61] Revenue from the income-generating activities by public universities is very small, except in the case of the University of Dhaka—although, even here, the amount earned is not all that significant (most of it is in the form of rent from two shopping centers). Similarly, at the government colleges affiliated with the National University, tuition is substantially lower than at the affiliated nongovernment institutions.

It is therefore necessary to mobilize additional resources for higher education, and to establish a rationale cost-recovery system. Such a system should be designed in collaboration with stakeholders, especially the student associations, political parties, faculty associations, and parents. The goal might not be full cost recovery, but it should at least be an increase in student cost-sharing, so that public universities can support more of their recurrent and development budgets, particularly given their need to expand academic programs and improve their quality. Ideal modalities for cost recovery may

[59] This figure refers to universities and other higher education institutions.
[60] Government of Bangladesh, UGC. *Annual Report - 2009*.
[61] A.N.M. Shawkat Jamal. 2004. *Role of Private Universities in Human Resource Development in Bangladesh*. The UK Higher Education International Unit. London.

Table 6: Government Allocations for Public Universities, 2001–2012

Fiscal Year[a]	National Budget (Tk'000)	National Education Budget (Tk'000)	University Education Budget (Tk'000)	Universities' Share of Education Budget (%)	Universities' Share of National Budget (%)
2001	345,970,000	35,874,600	2,886,700	8.05	0.83
2002	354,792,900	37,389,700	2,935,700	7.85	0.75
2003	399,455,400	39,603,900	3,235,300	8.17	0.81
2004	462,636,200	44,748,000	3,898,500	8.71	0.84
2005	509,031,100	50,718,500	4,375,000	8.63	0.86
2006	562,847,700	63,471,300	4,998,600	7.87	0.88
2007	598,916,800	79,226,600	5,528,000	6.98	0.92
2008	860,855,800	85,673,500	6,467,500	7.54	0.75
2009	941,394,700	100,700,000	7,401,500	7.35	0.79
2010	1,105,242,300	115,664,600	8,604,600	7.44	0.78
2011	1,300,121,300	133,994,400	11,022,400	8.22	0.85
2012	1,612,129,300	183,785,800	11,924,700	6.49	0.74

Tk = taka (Bangladesh currency).

[a] The fiscal year in Bangladesh runs from 1 July to 30 June.

Sources: Author's estimate based on the annual reports, from 2001 to 2012, of the University Grants Commission of Bangladesh.

include higher tuition, higher fees for room and board for residential students, and higher fees for the use of other physical facilities; as well as expanded access to student loans. Another means would be to encourage greater support from the private sector and civil society organizations through endowments, the establishment of academic chairs, and consultancy projects.[62]

International development assistance. Except for the University of Dhaka, which has a number of departments in the sciences and the social sciences that have engaged in academic collaboration with foreign universities, the public universities generally interact very little with foreign universities or research institutions. The UGC promotes programs involving international collaboration in order to help Bangladeshi universities obtain assistance from various multilateral development organizations—such as United Nations (UN) agencies—and from bilateral partners for improving research and teaching. Programs for foreign collaboration operate in consultation with the Ministry of Finance and the MOE. Assistance from foreign agencies is made available to public universities under specific agreements entered into by the government with the countries and agencies concerned. The UGC has, in fact, received assistance at various times from the British Council, Department for International Development of the United Kingdom (DFID), Association of Commonwealth Universities, Nuffield Foundation, Royal Society, Commonwealth

[62] Government of Bangladesh, UGC. 2006. *Strategic Plan for Higher Education in Bangladesh 2006–2026*. Dhaka. pp. 28–29.

Scholarship Commission, Agricultural Council of America (ACA), United Nations Population Fund (UNFPA), and the World Bank, among others. The main objective of such assistance has been to promote research at Bangladeshi universities. No data has been systematically collected on the contributions of these organizations, but discussions with relevant personnel indicated that, in financial terms, foreign assistance has been largely symbolic. The one exception was the Higher Education Quality Enhancement Project, which was funded by the World Bank with grants totaling about Tk6.81 billion. The project has been in operation since May 2009.

G. Higher Education Performance

This section presents data on the trends in student enrollment, student intake, and graduate outputs at public and private universities; it also presents some observations concerning research outputs and patents. For this section, the main source of data was the UGC. The UGC maintains the Higher Education Management Information System, which collects, processes, and disseminates relevant data on higher education. Although the Bangladesh Bureau of Educational Information and Statistics, the management-information organ of the MOE, collects and compiles data for all levels of education, its own source of data for higher education is the UGC.

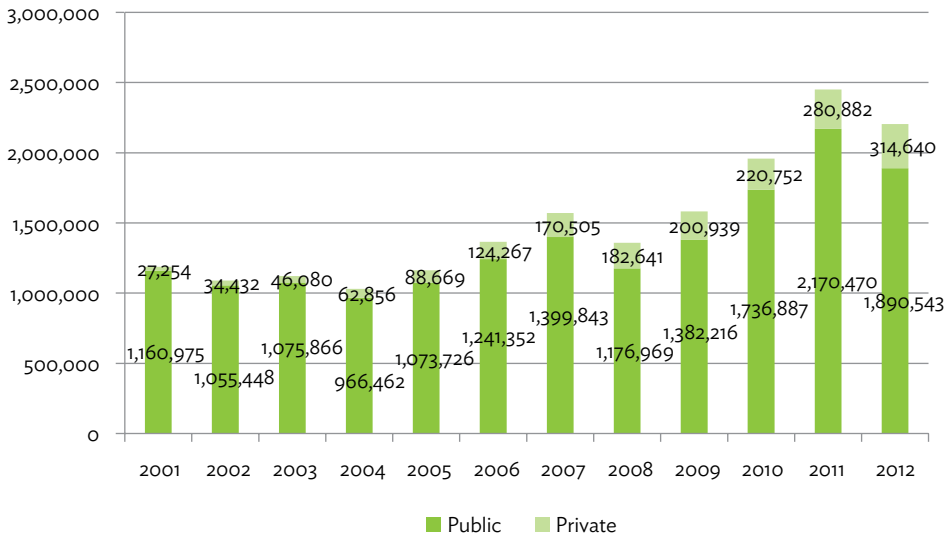
Enrollment. Total university enrollment rose from 1.19 million in 2001 to 2.21 million in 2012, an increase of almost 86% (Figure 3). During 2001–2012, enrollment at public universities increased from 1.16 million to 1.89 million; while enrollment at private universities increased more than 11 eleven times, from 27,245 to 314,640. This was due largely to the expansion in the number of private universities during 2001–2006.

A trend of increasing female participation has also been observed, up from 25% in 2001 to almost 42% in 2012 (Figure 4). The female participation rate was higher at the public universities (averaging 39%) than at the private universities (averaging 23%). This can be attributed to extensive subsidies of university expenses and the availability of student living accommodations. Female enrollment was higher in the arts, sciences, and social sciences (Appendix 4, Table A4.1).

Table 7 shows the distribution of enrollment across various disciplines at public and private universities during 2007–2012. The popular fields among public university students were arts and humanities, social sciences, sciences, and engineering and technology. On the other hand, enrollment in agriculture declined, despite the country's efforts to address food security and rural development issues. The most in-demand program for students at the private universities was business administration, which may have been due to the better job outlook in the business sector. Businesses are among the largest employers in Bangladesh.[63]

[63] There was no information available on the academic disciplines at madrassas, or on the employability of madrassa graduates, as no records are maintained by either the MOE or the Bangladesh Madrasah Education Board. These graduates apparently find employment mainly as teachers of Islamic subjects at madrassas and secondary schools. In addition, a large portion of madrassa students become imams. An imam is a religious leader at a mosque who leads the prayer five times a day, as well as a weekly midday prayer, called the "Jummah" prayer, on Fridays.

Figure 3: Enrollment at Public and Private Universities, 2001–2012 (number of students)



Source: Government of Bangladesh, University Grants Commission. Annual reports from 2001 to 2012. Dhaka.

Figure 4: Enrollment at Public and Private Universities, by Gender, 2001–2012 (number of students)

Source: University Grants Commission.

Table 7: Enrolment of Students in Public and Private Universities, by Discipline, 2007–2012

Disciplines	2007		2008		2009	
	Public	Private	Public	Private	Public	Private
Arts/Humanities	31,196	40,900[a]	33,037	30,537	32,961	22,351
Social Science	28,145	...	28,572	5,524	28,216	5,613
Law	2,984	...	3,245	11,483	3,141	15,741
Sciences	28,806	40,758[b]	37,434	48,888[b]	33,164	57,886[b]
Engineering and technology	28,299	...	20,520	...	24,003	...
Agriculture	7,465	...	6,883	...	6,480	...
Business Administration/ Commerce	21,222	78,847	20,848	87,503	4,498	99,120
Pharmacy	...	...	...	...	...	...

Table 7 continued

Disciplines	2010		2011		2012	
	Public	Private	Public	Private	Public	Private
Arts/Humanities	36,886	51,181	34,977	67,726	39,701	74,344
Social Science	32,842	...	31,120	...	30,479	...
Law	3,488	...	3,786	...	...	...
Sciences	80,983	61,035	83,059	97,766	91,672	97,861
Engineering and technology	...	...	...	...	...	...
Agriculture	...	...	...	...	...	...
Business Administration/ Commerce	22,176	100,345	23,129	122,837	25,950	133,186
Pharmacy	...	7,419	...	8,905	...	8,408

... = data not available.

[a] Includes data for arts/humanities, social science, education and law – no segregated data are available.
[b] Includes students of science, engineering and agriculture. No segregated data was provided for engineering and agriculture in UGC annual reports.

Notes:
1. The figures in this table exclude the students enrolled at Bangladesh Open University and the National University, as no discipline-specific data were available on these institutions.
2. The numbers do not include students in the diploma/certificates have not been included here due to unavailability of data.
3. Private universities only started reporting enrollment data per discipline to the University Grants Commission in 2008.
4. Agricultural universities in the public sector also offer veterinary programs. Public universities do not offer medical programs, with the exception of Bangabandhu Sheikh Mujib Medical University.

Source: Government of Bangladesh, University Grants Commission. Annual reports from 2007 to 2009. Dhaka.

Student intake. The total student intake at public and private universities rose from 126,996 in 2010 to 140,248 in 2012, an increase of about 10% (Table 8). Intake at public universities alone increased by about 16%, from 58,170 to 58,818 during the same period. It should be noted, however, that despite the increases in student intake, public universities have limited enrollment capacity, so they have to admit students based on the availability of seats each academic year. Private universities continued to expand (29.6%) in terms of enrollment, from 62,826 in 2010 to 81,430 in 2012.

Table 8: Student Intake at Public and Private Universities, 2010–2012

Universities	2010		2011		2012	
	Number of Universities	Total Intakes	Number of Universities	Total Intakes	Number of Universities	Total Intakes
Public	31	58,170	34	66,172	34	58,818
Private	51	62,826	52	69,535	60	81,430
Total	82	126,996	86	135,707	94	140,248

Notes:
1. The number of public universities includes those that were operational at the time.
2. The number of public universities includes National University and Bangladesh Open University. However, their intake data are not included as they are unavailable.

Source: Government of Bangladesh, University Grant Commission, annual report from 2010 to 2012. Dhaka.

The distribution of student enrollment among the various disciplines at the university level is mainly determined by the graduation rates from the three streams of general education at the higher secondary level—science, humanities, and business studies. The pass rate for the higher secondary examination more than doubled between 2001 and 2009: from 28.43% to 70.43%.[64] The steady rise in the number of higher secondary graduates exerted tremendous pressure on the limited admissions capacity of the universities (Appendix 4, Table A4.2). For instance, in 2009, the public universities (including National University and Bangladesh Open University) could only accommodate 213,872 out of the 344,485 higher secondary graduates. While there are no data on student intake at the private universities, it is understood, based on discussions with key individuals within the private university sector, that private universities could accommodate a total of around 52,000 enrollees. This left some 80,000 graduates, who either enrolled at technical institutions or did not pursue a higher education.

Graduates. The biggest number of higher education graduates was observed in 2009, at 226,913 (public and private universities combined). Compared with the total graduate output in 2001, the number of graduates had increased substantially, as more students completed their academic programs. While there was some fluctuation over the years, the total number of graduates in 2009 represented an 18% increase over 2001. The public universities had a total graduate output of 195,745 in 2009, while the total was 29,448 from the private universities. Consistent with enrollment patterns, in 2001 the largest portion of private university graduates had studied business administration (20%), followed by science, engineering, and agriculture (with a combined share of 25%). In 2009, business administration students comprised 44% of total graduate output of the private universities (12,977 out of 29,448).

As for the graduation rates with regard to the various levels of academic degrees, the numbers of graduates from public universities increased sharply between 2001 and 2012 for almost all degrees, with the notable exceptions of bachelor's (pass) degree. Appendix 4, Table A4.3 provides the breakdown.

[64] A Higher Secondary Certificate is essential for a student to be eligible to take university admissions tests.

Research and patents. No comprehensive data are available on research outputs in terms of scientific publications and patents. However, a good number of scientific and professional journals are published in English, and they are up to international standards.

The lists of faculty publications found in the annual reports of a few established public universities can serve as an approximate measure of the quantity of research outputs. It is also worth noting that there are over 90 scientific journals in Bangladesh, most of them related to medicine and engineering.[65] However, neither the universities nor the UGC could provide statistics on the quantity of publications per faculty member, making it impossible to comment on the trends in publications over the years.

In terms of patents, the concentration of patent awards is in such areas as food, agriculture, fruit, poultry, animals, housing, water, and industrial products. When the country was still a part of Pakistan, 19 patents were awarded. Since the country's independence, in 1971, 320 patents have been awarded. Between July 2008 to June 2009 alone, 11 patents were awarded.

Research outputs in terms of PhD dissertations are also difficult to gauge. In Bangladesh, only the public universities are, by law, allowed to offer PhD programs. Nevertheless, no data are available regarding the total number of PhD dissertations. According to library personnel at a few first-generation public universities (established before 1971), PhD scholars submit copies of their dissertations to the libraries, but these are considered "confined copies," which means that they can be read on-site but not borrowed. There is neither a formal system for disseminating dissertations nor a mechanism for inter-university library loans for sharing dissertations with interested students or faculty at other institutions. However, some scholars do get to disseminate their dissertations, albeit in a different format, by writing journal articles or by giving seminars organized with the help of the research bureau at their university.

[65] This is based on information collected from Banglapedia (www.banglapedia.org) and from *Bangladesh Journals Online* (http://www.banglajol.info/).

CHAPTER 3

Analysis of Issues and Major Constraints in Higher Education

Higher education in Bangladesh currently faces many interrelated challenges, including limited access to tertiary level institutions, low quality of education, questionable governance and management practices, inadequate funding, poor information and communication (ICT) infrastructure, and low research output.[66] These challenges constrain the development of higher education in Bangladesh, and limit its productivity and contribution to national development.

A. Access and Equity

In Bangladesh, there is a hierarchical pattern of higher education institutions, consisting of five tiers: (i) postsecondary institutes for vocational and technical training; (ii) degree colleges with bachelor's degree (pass) programs; (iii) university colleges with bachelor's degree (honors) and master's degree programs; (iv) general and specialized universities with undergraduate and graduate programs; and (v) universities with undergraduate, graduate, and research programs. The major part of the higher education system now consists of nonuniversity institutions (including colleges affiliated with the National University), which serve the majority of all tertiary level students.[67] In 2011, the private universities had a share of 12.5%, while the public universities (excluding the National University and Bangladesh Open University [BOU]) accounted for 8.27%. National University-affiliated colleges and institutions accounted for 73.43% of students, and BOU for 5.80% (Table 9).

Limited intake capacity of higher education institutions. Although access to higher education in Bangladesh is not expected to be universal, it has to expand substantially to meet the challenges of today's knowledge-based economy. By 2009, its public and private universities had the capacity to absorb a total of roughly 266,000 students per academic year. However, as mentioned earlier, the total intake that year of all the public higher education institutions was 213,872 out of 344,485 higher secondary graduates. The total intake of the public universities, excluding the National University and BOU, was only at 29,565 in 2009. This means that the National University and BOU together absorbed about 86% of the total number of higher secondary graduates. In 2011, National University and BOU cater to about 80% of higher education enrollment. These figures suggest that the policy makers and planners in the higher education sector need to pay special attention

[66] World Bank. 2009. Bangladesh – *Higher Education Quality Enhancement Project*. Project appraisal document. Washington, DC.

[67] This percentage includes colleges and institutes affiliated with the National University.

Table 9: Total Enrollment at Higher Education Institutions, 2005, 2009, and 2011

	2005		2009		2011	
Higher Education Institution	Number	% of Total	Number	% of Total	Number	% of Total
Public universities (excluding the National University and Bangladesh Open University)	116,397	11.39	165,937	10.48	185,910	8.27
National University-affiliated colleges and institutes	755,588	73.93	1,119,275	70.70	1,650,088	73.43
Bangladesh Open University	61,400	6.00	97,004	6.12	130,421	5.80
Private universities	88,669	8.68	200,939	12.70	280,822	12.50
Totals	1,022,054	100.00	1,583,155	100.00	2,247,241	100.00

Source: Government of Bangladesh, University Grants Commission.

to improving the quality of National University-affiliated colleges and institutes, and the distance learning programs at BOU.

It should be noted that the National University-affiliated colleges attract mostly rural students, who tend to have less financial capacity to cover the costs of their education, and who are less frequently able to pass the public universities' rigorous admissions tests. Admissions figures for the National University-affiliated institutions vary, depending on the proportion of passes in the Higher Secondary Certificate (HSC) examination results. Total enrollment at the National University-affiliated institutions increased from 755,588 in 2005 to 1,119,275 in 2009; as a percentage of all higher education institutions, however, those figures represented a decrease from about 74% to 71% (Table 9). BOU usually attracts those students who are employed and do not have the time or money to attend regular degree programs. These students are scattered all over the country. Enrollment at BOU has been gradually increasing over the years. For example, BOU had 61,400 students in its degree programs in 2005, and this grew to 97,004 by 2009, representing a 58% increase over 5 years.

Gender disparity. Although Bangladesh has improved in terms of gender equity in primary and secondary education, the gender gap at the tertiary level is still substantial. In 2009, females constituted 40% of total tertiary level student intake in Bangladesh. The government's poverty reduction strategy emphasized the need to increase female enrollment in higher education. Gender disparity in higher education is mainly due to the difficult rural–urban mobility for females, lack of secure accommodations for females in the urban areas (where most universities and colleges are located), poverty of the parents, early marriage, and the general apathy toward higher education for females.

Inequity across income quintiles. In 2007, tertiary level enrollment was heavily concentrated in the richest quintile, which accounted for about 66% of all students at higher education institutions.[68] Very few students from poor households reach this level, given the high costs of tertiary education and the small proportion of poor students who

[68] S. Al-Samarrai. 2007. *Education spending and equity in Bangladesh*. A background paper for the Bangladesh Poverty Assessment (2007). Washington, DC: The World Bank.

complete higher secondary education. While about 44% of all children in Bangladesh progressed to junior (or "lower") secondary education in 2009; only about 27% continued to higher secondary education; 16% completed higher secondary; and 7% of the eligible age cohort continued on to universities, degree colleges, or other forms of tertiary education.[69] In 2006, the World Bank estimated that around 6% of the eligible age cohort in Bangladesh was enrolled in tertiary institutions that year.[70]

Despite a considerable increase in enrollment in the private universities, the tertiary enrollment rate in Bangladesh remains one of the lowest in the world, even less than in India, where in 2009 it was 12% of the eligible age cohort. This was in sharp contrast with the average of 50% in the industrially advanced countries. Enrollment in the People's Republic of China (PRC) in 2009 was 26%, Thailand's was 50%, and the Latin American countries it ranged from 20% to 30%. However, Bangladesh's rate was higher than Pakistan's (4%) and comparable to that of many countries in sub-Saharan Africa. The Republic of Korea provided 90% of its young adults with tertiary education.[71] The low tertiary enrollment rates in Bangladesh can be attributed, in part, to the poor quality of education at the pre-tertiary levels.[72]

In the context of a global expansion of higher education, with enrollment reaching some 26% of the 18–24 age cohort in 2007,[73] Bangladesh needs to seriously look for ways to expand access. This is a pivotal issue, as higher education in Bangladesh is traditionally regarded as a privilege for the few.

Lack of financial assistance programs for students. Access to higher education could be improved through student loan programs. Bangladesh does not have a state-sponsored program. In the private sector, there is only Grameen Bank's Higher Education Loan Program, which is implemented on a small scale and offered only to the children of the bank's employees.

Thus, schemes such as state-sponsored student loan and/or private sector loan programs, which are nonexistent to date, are worth exploring as a means of increasing access to higher education. A thorough feasibility study should determine the viability of such programs. Public university students currently (2009) pay a considerable amount of money, with tuition and other costs ranging from Tk20,000–Tk32,000 ($244–$390) per year for an undergraduate student to about Tk35,000 ($427) for a graduate resident student.[74] At the private universities, all students pay the full cost of their education—tuition, lodging, meals, and other expenses.

[69] M. Ahmed. 2009. Bangladesh a no-show again. *The Daily Star*. 12 July. This article quoted figures from the UNESCO Institute for Statistics.
[70] UNESCO Institute for Statistics. 2014. *Higher Education in Asia: Expanding Out and Expanding In*. Montreal.
[71] M. Ahmed. 2009. Bangladesh a no-show again.
[72] All figures in this paragraph refer to gross enrollment.
[73] M. Ahmed. 2009. Bangladesh a no-show again.
[74] Government of Bangladesh, UGC. 2006. *Final Report of the Quality Group*. Dhaka. This was found in a study by UGC conducted for the purpose of preparing its 20-year strategic plan.

A second option would be to introduce a higher education voucher system similar to the Colorado Plan.[75] Such a system could offer student aid vouchers, need-based grants, and merit-based scholarships, as provided in Denmark, France, and the United States (US). A third option would be to offer mortgage-type student loans with income-contingent repayment plans. For a developing country like Bangladesh, need-based grants and merit-based scholarships could be critical components of a financing structure for higher education and, as such, they could contribute to greater access and equity.

The 2007 National Household Survey on Corruption in Bangladesh (conducted by Transparency International Bangladesh) reported that the average household monthly income was Tk10,003 ($122) and that the monthly expenditure was Tk7,345 ($90). Thus, disposable income was only around $38 per month.[76] Student loan programs should be designed considering this meager income to enable students to repay their loans at reasonable installments once they are employed.

Uneven geographical distribution of higher education institutions. The location of higher education institutions affects access to higher education in Bangladesh. Both public and private universities are highly concentrated in the capital city, Dhaka, which is the location of about 60% of all universities, followed by the port city of Chittagong (11%). Thus, graduates of higher secondary schools in rural areas generally find it difficult to enter the higher education system. The constraints include the financial burden and unavailability of transportation and lodging. The government is trying to improve access to tertiary education for rural residents by gradually establishing public universities in district towns, and by encouraging entrepreneurs to establish private universities in rural towns through incentives such as liberalized statutory-reserve and land requirements.[77] Measures like these will hopefully reduce the regional disparities in higher education, thereby enabling qualified students in all regions to attend higher education institutions.

Costly private education. Because of the exorbitant tuition, only students from affluent families are able to enroll in private universities. These universities are trying to achieve greater equity by providing financial assistance to meritorious students in the form of tuition waivers, maintenance allowances, reduced admissions fees, and free supplies of textbooks (to be returned at the end of the semester), among other benefits. But the top students from disadvantaged socioeconomic backgrounds (i.e., those with the best grades in the higher secondary examination) generally do not enroll at private universities.[78] This may be attributed to the perceived prestige and better quality of the public universities in Bangladesh. The best students prefer to brave the highly competitive admissions process of the public universities rather than enroll in private institutions. With few exceptions, private universities admit students without giving admissions tests. The degrees from most public

[75] Under the Colorado Plan, all undergraduates of public and private institutions in Colorado receive a uniform voucher, officially referred to as a "stipend." This voucher covers a portion of the average per-student cost. Students submit the voucher to the institution of their choice, to be used to cover an equivalent amount of their tuition and other expenses. For details, see: R. O'Donnell. 2005. Presentation at a joint World Bank and Korean Education Development Institute Conference. Seoul, Republic of Korea. April.

[76] Transparency International. 2008. *National Household Survey 2007 on Corruption in Bangladesh.* Dhaka. p. 11.

[77] Bangladesh Private University Act 2010, Act No. 20 of 2010.

[78] M. Alam, M.S. Haque, and S.F. Siddique; N. V. Varghese, ed. 2007. *Private Higher Education in Bangladesh.* Research Papers IIEP. Paris: UNESCO, International Institute for Educational Planning (UNESCO-IIEP). p. 49. http://www.unesco.org/iiep/PDF/pubs/Bangladesh.pdf

universities are considered much more socially valuable, more accepted and useful for employment, as manifested in the many vacancy announcements that clearly discourage private university graduates from applying.

Still, the private universities in Bangladesh play a critical role in increasing access to higher education. In 2009, the total number of students at private universities stood at 200,939, a 127% increase over 2005.[79] In less than 20 years, private universities had substantially expanded and become an important partner in the provision of higher education.

A large majority of private universities offer job-oriented academic programs, which are in demand. These programs are usually focused on business administration, computer science, English, law, and a few engineering and technology-related areas. Courses in Bangla (the national language) and liberal arts are rare. A few private universities also offer academic programs in film, media, and library science. Except for very few specialized universities (e.g., the University of Science and Technology, Chittagong and the Ahsanullah University of Science and Technology), most private universities depend on their business administration programs to attract students. With tuition as their main source of income, these institutions sometimes have a financial surplus of as much as 40%,[80] which is generally utilized for building campuses and facilities.[81] Private universities save on salary costs by employing more part-time faculty and younger teachers at low renumeration. These part-time faculty members mostly come from local public universities. For example, The University of Dhaka and Bangladesh University of Engineering and Technology provide a source of part-time or adjunct faculty for the private universities in Dhaka, while Chittagong University of Engineering & Technology is the main source of part-time faculty for Chittagong-based private universities.

B. Quality

There is growing concern both in the government and among higher education stakeholders over the poor quality of the country's higher education institutions, particularly some of the new private universities; the vast number of colleges affiliated with the National University; and the tertiary level distance learning programs offered by BOU. There has been a decline in the quality of higher education since the country's liberation in 1971, which is generally attributed to the lack of facilities, poor quality of instruction, and the poor quality of student intake.[82] Most of the universities do not have access to the latest books, journals, and research articles. In addition, the lack of English proficiency and information technology (IT) skills among the university staff and students restricts their ability to access much of the academic literature and electronic resources. Among the public higher education institutions, the National University-affiliated colleges generally have an unsatisfactory quality of instruction and poor facilities, among other problems. Moreover, opportunities for skill development and the upgrading of the teaching staff

[79] Government of Bangladesh, UGC. 2009. *Annual Report 2009*. p. 166.

[80] Total earnings minus total expenditures will result in a surplus if earnings are higher than expenditures, and in a deficit if expenditures are higher than earnings.

[81] M. Alam et al. 2007. *Private Higher Education in Bangladesh*. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO), International Institute for Education Planning (IIEP). Paris.

[82] Government of Bangladesh, UGC. 2006. *Strategic Plan for Higher Education in Bangladesh 2006–2026*. Dhaka.

remain scarce, and poor internet connectivity limits communications within and among academic communities. It is imperative and urgent that a thorough examination of this situation be conducted to identify the causes and determine specific solutions at both the policy and program levels.

Traditional methods of instruction, examination, and student evaluation. Public universities provide education using mainly traditional methods, such as lectures and the evaluation of students through written examinations, instead of modern methods like case analyses, presentations, group work, simulations, business games, term paper writing, and formative assessment (including quizzes). There is an impression that most private higher education institutions do not invest in innovative methods of instruction to improve academic standards. Desired improvement have not occurred, in spite of the large number of faculty members who have foreign training. To some extent, this may be attributed to institutional culture, which does not encourage or reward faculty research, good performance in teaching, or the guidance of student research, among others.[83]

Training that focuses on the effective teaching methodologies for higher education are crucial, especially for newly hired faculty, as they typically enter the institutions right after completing their higher education, considering that recruitment for the entry-level positions does not currently require teaching experience. Meanwhile, high student–teacher ratios at public universities further impede the quality of learning, which is aggravated by low quality or lack of modern electronic teaching aids, inadequate school furniture, and the instructors' lack of training. All of these contributing to inability in adopting innovative teaching strategies.

There is currently no standard formal system for supervising and monitoring classroom teaching at the public universities. The dean and the departmental chairs have autonomy in supervising and monitoring the classroom activities of instructors and professors, and in adopting the necessary measures for improvement. While a few top-ranking private universities (i.e., North South University (NSU), East West University (EWU), Independent University, Bangladesh (IUB), and BRAC University) have been practicing student evaluation of teacher performance, it needs to be introduced in most both public and private universities so that the faculty will be pressured to improve their methods.

Except for a few disciplines, such as business education, the examination system is traditional in several higher education institutions. Students write down answers to essay-type questions based on memorized content, an approach that promotes rote learning and encourages very little creative thinking. Although universities are gradually moving away from the traditional evaluation system toward a modern grading system, in most cases the mind-set of faculty and planners has not changed. There is a need to overhaul the question-setting examination format in favor of objective type questions and critical essay questions that require analytical thought.

Private universities' reliance on part-time teaching staff. As mentioned earlier, private universities with limited number of full-time faculty depend heavily on part-time staff from

[83] The findings discussed in this paragraph are based on the author's personal experiences and discussions with stakeholders.

public universities. In 2009, 3,405 out of the total 9,115 (37%) private university teaching staff were part-time or adjunct faculty. South East University had the highest percentage of part-time teaching staff at 74%, followed by Asian University of Bangladesh at 72%.[84] With a few notable exceptions, overdependence on adjunct faculty and young junior faculty adversely affects the quality of instruction at private universities.

Moreover, many democratic provisions of the university acts, especially those related to various types of elections, keep a number of faculty members very busy with political activities, thereby limiting their teaching time. Similarly, a substantial proportion of students remain involved in national politics under various political parties, and their active participation in politics often results in campus violence, which, in turn, disrupts the academic environment and eventually compromises the quality of their learning.

Lack of strategic faculty development strategies or programs. At both public and private universities, there are hardly any plans for in-service training programs for newly recruited or veteran professors and instructors. Faculty members mostly go to other countries for training, on their own initiative or through foreign scholarships.[85] There are sabbatical leaves for senior faculty to carry out research, but no refresher courses to update the faculty members' knowledge of their disciplines. The UGC provides postdoctoral awards to faculty at public universities, though on a limited scale. Given the importance of updating faculty members' subject knowledge and instructional skills to keep pace with international developments in higher education, there is a need for a well-designed strategic plan for profesional development training at both public and private higher education institutions. Such a plan could be implemented by the UGC.

A greater number of academic staff with doctorates is also essential for upgrading both the teaching and research capabilities of the universities. While some 20% of university teachers have a master's or equivalent degree, these are not research-oriented. Poor staff development may be attributed to inadequate training facilities, lack of funds for training (whether within Bangladesh or in programs abroad), meager resources for research, lack of ties with the business community, the absence of a system for regularly updating knowledge, a general lack of access to academic papers and journals, and inadequate laboratory facilities.

Absence of a quality assurance framework. There is currently no quality assurance framework or accreditation body for higher education in Bangladesh. There is also no external system for reviewing academic programs at either public or private universities. Even the universities themselves have no internal systems for program review. In the absence of any accreditation council in the country, it is not clear how and to what extent public or private universities are ensuring quality and relevance. As stipulated in the UGC's Strategic Plan for Higher Education 2006–2026, the administrations of public universities limit their internal control to (i) student enrollment, (ii) recruitment of faculty, (iii) development of curricula, (iv) oversight of the examination process and certification

[84] Government of Bangladesh, UGC. 2009. *Annual Report - 2009*, p. 516 (Table 10.26).

[85] Among these scholarships are the Commonwealth scholarships and fellowships; Monbusho scholarships; Fulbright scholarships, fellowships, and grants; Korean International Cooperation Agency scholarships and fellowships, and German Academic Exchange Service (DAAD) scholarships and grants.

of the awarding of degrees, and (v) maintaining discipline through the proctor system.[86] The UGC's strategic plan calls for the establishment of an independent accreditation council, but so far there have been no progress in this regard.

Inadequate facilities and learning resources at private higher education institutions. Media reports have been critical that most private universities have a serious lack of infrastructure, such as classrooms, student lounge (waiting room), recreational facilities, and student housing. The government, too, is dissatisfied with the private universities, as revealed in the strategic plan document and the annual reports, which are critical of the universities' makeshift facilities (except for the very few that have permanent campuses). A recent study of the aspects of educational standards (i.e., faculty credentials, academic calendars, campus facilities, research facilities, and the cost of education) also concluded that private higher education in Bangladesh had not yet achieved the desirable level of quality.[87]

However, it should be noted that private universities in Bangladesh usually struggle during their initial years. They may have started with a rented campus and then shift to a permanent, university-owned campus, a process that is highly expensive and time consuming. Moreover, in urban areas, especially in the big cities, land is excessively high-priced, and therefore unaffordable for most private universities. The required size of land prescribed by the Ministry of Education (MOE) for a campus is also difficult to acquire. The qualified teaching staff required by the private universities may not be readily available, and it will take time to train full-time educators of acceptable quality. Libraries cannot be expected to develop within just a year or two. Most importantly, it is not reasonable for the government to insist that private universities look and function like public universities, which have large campuses allocated by the government itself. The campus problem could be solved by government's allocation of land outside the urban areas that would be accessible by public transportation and have good communications facilities. Such land will be made available to private universities to use for free. The government should also consider creating a "higher education enclave" (based on the model of the free trade zone, for example), with modern facilities and infrastructure, to accommodate several private universities in one place.[88]

Among the private higher education institutions in Bangladesh, there are a few that prioritize admitting quality students (based on rigorous admissions tests), recruiting qualified faculty, and providing good educational facilities, instead of simply looking to boost revenue by increasing the number of students.[89]

Lack of academic preparation among entering students. The quality issue in tertiary education cannot be regarded in isolation from the quality of primary and secondary (including higher secondary) education. Any intervention within the higher education

[86] Government of Bangladesh, UGC. 2006. *Strategic Plan for Higher Education 2006–2026*. Dhaka.

[87] M. A. Ashraf, Y. Ibrahim, and M. H. R. Joarder. 2009. Quality Education Management at Private Universities in Bangladesh: An Exploratory Study. *Jurnal Pendidik dan Pendidikan* (Malaysia). 24. pp. 17–32. http://web.usm.my/education/publication/jpp24_mohammadashraf_17-32.pdf

[88] Such zones could be established in urban areas, especially Dhaka.

[89] *Janakantha*, 20 May 2006.

institutions is likely to affect the entire educational system. The higher education system must also help in improving the quality of teaching and learning at pre-tertiary levels.

Despite the substantial improvements seen in many aspects of primary education in Bangladesh, particularly in terms of access, the academic achievement of its graduates remains poor.[90] This is mainly due to the hiring of faculty members who lack the necessary qualifications, poor in-service training, and weak school management, among other problems. The recent government decision to add the preprimary level poses another challenge to quality. If regular primary level education teachers end up teaching in preprimary classrooms without specialized training in early childhood care and development, the problem of quality will likely be exacerbated.

A European Commission study conducted in 2009 confirmed that secondary education in Bangladesh suffer from quality problems in various areas.[91] The study reported that the country's secondary education subsector was largely unplanned and of very uneven quality in terms of both resource inputs and outcomes.[92] A government assessment also pointed to the high wastage of resources at the secondary level because of low completion rates (42% for boys and 34% for girls).[93] Both primary and secondary schools should provide students with a solid foundation for further learning, including tertiary level studies, alongside preparing them for the job market.

Policy gaps concerning relevance. Policy makers need to focus on relevance as an aspect of quality improvement objectives, such as better faculty qualifications, improved student academic achievement, and accreditation of academic programs. The National University can be the main target for reform. With around 2,000 affiliated colleges and institutions, it produces the bulk of tertiary education graduates in the country. And it also faces acute challenges regarding relevance and quality.

In the absence of meaningful ties between the public universities and the private sector (with the exception of a few departments, such as business administration, pharmacy, and engineering), higher education has little relevance to the needs of the economy. Disciplines

90 Asian Development Bank. 2008. *Education Sector in Bangladesh: What Worked Well and Why under the Sector-Wide Approach.* Dhaka: Asian Development Bank. p.4.

91 L. Owens et. al. 2009. *EC Sector Review and Identification Mission for Secondary Education: EC Education Support under MIP 2007–2010 in Bangladesh*. Draft final report. Brussels: European Commission. Studies on primary and secondary education have repeatedly shown that incidence of private tutoring has been increasing over time, and that it has become an integral part of school education in Bangladesh. See the following: M. Ahmed et al. 2005. *Education Watch Report 2003/4: Quality with Equity; The Primary Education Agenda*. Dhaka: Campaign for Popular Education (CAMPE); M. Ahmed, S.R. Nath, A. Hossain, M. A. Kalam, eds. 2006. *Education Watch 2005: The State of Secondary Education; Progress and Challenges*. Dhaka: CAMPE; S.R. Nath and A.M.R. Chowdhury, eds. 2009. *Education Watch 2008: State of Primary Education in Bangladesh; Progress Made, Challenges Remained*. Dhaka: CAMPE; S.R. Nath. 2008. Private Supplementary Tutoring among Primary Students in Bangladesh. *Educational Studies*. 34 (1). pp. 55–72.

92 L. Owens et. al. *EC Sector Review*. With approximately 9 million students at the secondary level (and 18 million at the primary), there are about 25,500 secondary-level schools, including madrasas, of which only 317 are owned and managed by the government, and all of these are in urban areas.

93 Government of Bangladesh, Ministry of Primary and Mass Education, Directorate of Primary Education. 2010. *Programme Document: Third Primary Education Development Prog3*. Dhaka.

linked to the growth-related sectors of the economy are underrepresented.[94] Because of this, many graduates of public universities end up seeking employment outside their fields of study. Private universities, on the other hand, do respond to the needs of the economy, but only to market signals reflecting short-term demand; they neglect the long-term interests of national development.[95]

A critical review of higher education curricula by the UGC pointed out the failure to match current job market demand.[96] Moreover, academic programs that are needed for economic growth—such as, medicine, nursing, medical technology, pharmaceuticals, biotechnology, clinical psychology, and information and communication technology (ICT)—are not given appropriate attention at the universities. Curricula are outdated and, for the most part, university and college classrooms cannot be regarded as ideal venues that facilitate interactive learning. Universities have weak linkage with alumni and the business community in designing course curricula. Their involvement can enhance development of attributes and acquisition of competencies appropriate to perform well in the world of work.

An important concern related to relevance is the question of which language should be used as the medium of instruction in tertiary education. In principle, Bengali, as the official language, has to be used by the universities and all other higher education institutions. Private universities use English, however, while public universities are torn between Bengali and English. At the public universities, English has been informally "declared" as the medium of instruction for disciplines such as business administration, computer science, engineering and technology, and medical science. For other disciplines, classroom teaching often takes place in a mix of the two languages, resulting in the students' low development of English proficiency.

The chair of the UGC claims that because the technical universities use English as the medium of instruction, and the National University-affiliated colleges overwhelmingly use Bengali, there exists "serious confusion about the choice of medium of instruction in higher education in the country."[97] To address this issue, the government must have a clear language policy recognizing that: (i) the job market, both inside and outside the country, requires tertiary level graduates to have proficiency in English; and (ii) the textbooks used for higher education are mainly written in English, and are usually of Western origin. Apart from the implications of introducing English as the medium of instruction at the tertiary level, further consideration should also be given to strengthening the teaching of English at the secondary level.

In several cases, private sector employers feel that the graduates of some private universities in some disciplines (e.g., business administration, computer science, and

94 The World Bank. 2009. *Bangladesh—Higher Education Quality Enhancement Project: Project Appraisal Document*. Washington, DC. This World Bank report succinctly analyzes relevance, access and equity, and organizational and management effectiveness, as well as internal efficiency in higher education. This section borrows pertinent information from the report.

95 Centre for Policy Dialogue (CPD). 2009. *CPD on Education Policy, 2009*. Dhaka.

96 Government of Bangladesh, UGC. *Strategic Plan for Higher Education in Bangladesh*. p. 15.

97 N. Islam. 2008. Higher Education in Bangladesh and Its Challenges. Presentation at a panel discussion, Management and Quality Assurance: Higher Education in Bangladesh, at the National Defence College. Mirpur Cantonment, Dhaka. 25 March.

medical science) are well-equipped with skills relevant for their companies. This may be due to the intensive course work and more conducive educational atmosphere at the more prestigious private universities.[98]

In contrast, some employers in Dhaka city indicate that Alim and Kamil graduates from the madrassas are generally unprepared for jobs in business.[99] This may be attributable to their unfamiliarity with the world of work and their lack of proficiency in English. However, a few madrassa graduates who have acquired further education at general universities are working in Islamic businesses, such as Islamic banks and insurance companies, or in banks or insurance companies with Islamic branches. Modernizing madrassa curricula by introducing secular school- and college-level courses to complement religious studies, and forging institutional linkages and inter-institutional knowledge-sharing programs with institutions offering general subjects, would make madrassa graduates more ready for the job market.

The higher education institutions in Bangladesh are expected to facilitate independent learning. Efforts to encourage students to reflect on their work, evaluate their study habits, and enter into dialogue with peers and tutors are intended to promote "learning autonomy." There are further possibilities for enhancing teaching and learning in higher education. These might include the adoption of student-centered instruction, the promotion of greater student-faculty interaction, and an emphasis on critical thinking.

The government has apparently been developing a new university model that would represent a positive change in the higher education system. This model is evident in the Bangladesh University of Textiles, established in 2010, which has curricula designed to be fully relevant to the needs of the textile industry and the economy as a whole. This university focuses solely on textile-related academic programs (yarn manufacturing engineering, fabric manufacturing engineering, wet processing engineering, apparel manufacturing engineering, textile fashion and design, and textile management and business studies). At this university, the right stakeholders have been involved: the top administrators are experts in the relevant fields and the academic staff are qualified professionals. This model might be considered for other key sectors of the economy.

Policy gaps have had a bearing on the educational relevance of tertiary education. The government should immediately formulate and implement policies to improve the relevance of higher education by promoting academic programs that will equip graduates with the skills required by industry, thus enabling them to contribute more effectively to Bangladesh's economic development. Government policies on education should also focus on developing human resources in fields and disciplines where there are huge prospects for qualified professionals both within and outside Bangladesh. These fields and disciplines include nanotechnology, biotechnology, nuclear engineering, animal husbandry, land and water resources management, forestry, mineral resources, renewable energy and gas exploration, extraction of sea resources, medical science and nursing, textile engineering, leather technology, fashion design, apparel manufacturing, automobile engineering,

[98] M. Alam et al. 2007. *Private Higher Education in Bangladesh*. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO), International Institute for Education Planning (IIEP). Paris.

[99] The Alim is the madrassa equivalent of the Higher Secondary Certificate (12th grade), and the Kamil is the madrassa equivalent of graduate. See Appendix 3, section F of this report for further information.

marine architecture, marine biology, environmental science, disaster management, and climate change.

C. Governance

An essential precondition for accelerating human resource development (HRD) through higher education is good governance, within institutions and throughout the entire system, in terms of authority, autonomy, transparency, accountability, stakeholder participation, responsiveness, efficiency, capacity building, equity, and sustainability. This may not be easy in a country like Bangladesh, where higher education has become somewhat politicized. Both public and private universities have been confronted with problems of governance. In addition, many public and private universities have been accused of serious administrative and financial irregularities, mainly due to a lack of transparency and to noncompliance with conditions set by the government.[100] In Bangladesh, governance practices at some public universities and many National University–affiliated colleges have contributed to the politicization of academic decision making, thereby derailing academic independence and management autonomy enshrined in the legislative acts that established these institutions. The problems with governance have included politically motivated choices for top university administration positions by senior government officials, disruptive political activity by the staff and students, inflexibility in budget management, and limited stakeholder participation in university policy making and operations.

Governance covers such functions as the appointment of vice chancellors, recruitment and promotion of faculty members, accountability at various levels of the university administration, and supervision of academic performance. It has been alleged that, at some public universities, appointments to various levels of the administration are marked by political bias, promotions are given on the basis of party affiliation, and departmental chairs fail to use their authority to enforce standards of faculty competence due to the relevant committees' reluctance to take any action. Evidently, there exists political polarization among the faculty and the staff, further damaging the accountability structure. While correcting governance malpractice is of utmost importance, it is equally critical to ensure that any measure taken is not seen as a ploy to curb academic freedom. Two ways to address these issues at least in part would be to (i) eliminate the election of faculty members to such positions as dean and research institution director using instead a rotation system based on seniority; and (ii) bar faculty members from any involvement with national political parties.

Other measures might include (i) rationalizing the government university laws by developing a single law for all public universities; (ii) specifying, and then strictly enforcing, the roles and lines of accountability of all stakeholders (senates, syndicates, academic staff, students, administrative staff, etc.); (iii) clearly delineating the power and authority of the governing bodies and officials (chairs, deans, directors, provosts) to enforce academic standards and norms; (iv) developing a national consensus on the need for, and modalities

[100] F. Islam. 2009. Emerging Issues of Higher Education: Analysis of Demand, Problems and Trends. *Financial Express*. 2 August. These kinds of irregularities include nepotism in the recruitment and promotion of academic and nonacademic staff, violation of rules when fixing staff salary schedules, etc.

of, student and faculty politics on university campuses; (v) developing a dynamic faculty reward system that would be flexible enough to reward good performers and penalize nonperformance; (vi) instituting a sound accountability system for the faculty with respect to their teaching and research duties; and (vii) changing the relevant laws and statutes to include participation by the civil society, in order to ensure wider representation, as this would lead to improved governance and transparency.

While tertiary education is expected to gradually become more privatized or "commercialized," there is a need to find ways to protect the "public good" aspects of higher education, without jeopardizing the integrity and autonomy of private universities. Despite extensive public debate about governance issues, the government has not been able to implement any effective solution, mainly due to the strong resistance from the academic community to its proposed reforms. This resistance comes from the fear of losing academic independence and management autonomy, and of interference by the government (and the political party) in power.

Believing that good governance, recruitment of talent, and adequate resources are essential ingredients for elevating a university to world-class status, the present government has started implementing a very ambitious education policy. Good governance will enable the higher education system to help achieve the goals of the Perspective Plan of Bangladesh 2010–2021, prepared by the Ministry of Planning. The plan is expected to afford significant representation to external stakeholders in higher education, such as the private sector and professional associations. With this change, visionary and transformational leaders would have the opportunity to contribute in many ways to the development of higher education. For instance, they could facilitate the development of incentive structures linked to financing, or play an important role in improving the relevance and quality of education.

Thus, governance reform at the universities, in particular at the National University, is of paramount importance. Given that higher education is key for the economic and social development of Bangladesh, governance reform should be the first priority of any policy to strengthen the higher education system. It is urgently needed in order to reshape higher education in the country.

D. Access to Resources

Public resources are inadequate for meeting the growing demand, for both access and quality, in higher education. Most of the public universities do not have the latest books, journals, and research articles. The poor quality of English and ICT skills of many of the faculty members and students effectively isolates them from much of the academic literature and electronic resources in their disciplines. Skill-development opportunities for teaching staff are scarce, and weak internet connectivity limits communication and exchanges within and among academic communities. The same applies to private universities.

The public universities generally receive about 8% of total public sector allocations. Out of this allocation, about 71% is spent on salaries and quality-enhancing measures (such as obtaining or upgrading facilities, equipment, computers, and books and journals),

leaving very little for other uses.[101] It should be noted that research was allocated only 0.26% in 2009. Moreover, the already inadequate resources at public universities are not utilized efficiently. Budget allocations to these institutions are based on precedence or influence, and not on any standard formula applicable across universities (e.g., in which funding would be linked to outputs). University authorities have little flexibility in deciding on their budget expenditures, as their government funding is already allotted to specific categories, including salary supports and various types of grants (e.g., pension, research, maintenance and repair, and procurement). They are unable to transfer funds across categories, and any savings made are to be returned to the Bangladesh National Exchequer, thus discouraging any effort to improve cost-effectiveness. Under these severe budgetary constraints, the activities and services of the departments and institutions are limited to the bare necessities.

Public universities lack diversified sources of income. With 85% of their total income coming from the government, they obtain the remaining 15% from their own income-generating assets and activities, such as tuition, rental income from university-owned shopping centers, and the sales of books.[102] Despite its potential as a major source of funding for public universities, tuition is usually extremely low and insignificant, especially at the public universities offering general studies. Due to the fierce resistance encountered from the students, tuition levels have not changed much over the last several decades, despite the considerable increases in higher education expenses. While increasing tuition at the public universities does not seem to be a politically viable option, policy makers should consider the fact that the lack of other financial options imposes a huge constraint on the development of the country's tertiary education system. Public universities need to look for additional funding, and they should diversify their sources of income; and be allowed to keep and utilize any extra income and savings, rather than be compelled to surrender them to the treasury.

Further, greater transparency and accountability need to be introduced into the budgeting process at public universities. Instead of determining budgets on the basis of precedence or influence, budgets should be determined through a rational and transparent process that uses a common formula for all. At a minimum, budgets should be based on common unit-cost figures that link resources to enrollment and to other measurable outputs.

In contrast to public universities, private universities do not receive any budgetary allocations from the government. Recently established private universities collect fees based on credit hours, a policy that enables them to earn substantial revenues. Students at private universities cover their own expenses. The private universities rarely provide financial assistance to their students, except for a few institutions that give scholarships and stipends based on merit, as measured by student grades each semester. The author's analysis in 2009 of the tuition charged by the private universities offering general subjects shows that an undergraduate student has to pay from Tk250,000 to Tk600,000 ($3,049 to $7,317) for the total 3 or 4 years of study. In the graduate programs, the range is generally from Tk80,000 to Tk400,000 ($976 to $4,868). The tuition for programs in the medical sciences is far higher than those prevailing at the nontechnical universities.

101 Government of Bangladesh, UGC. *Annual Report - 2009*, p. 29 (Table 5.3).
102 Government of Bangladesh, UGC. *Annual Report - 2009*. p. 29.

For example, at the University of Science and Technology, Chittagong, an MBBS student has to pay Tk800,000 ($9,756) to obtain a degree, and the cost is about $12,000 for an international student.[103]

E. Information and Communication Technology Infrastructure

Competence in ICT is essential if Bangladeshi graduates are to be competitive within or outside the country, but the low quality of ICT infrastructure at higher education institutions is hindering their ability to become ICT-enabled institutions and/or centers of excellence.[104] There is an urgent need to adopt plans for enhancing ICT infrastructure and facilities, including the provision of high-speed internet and other related technologies. This may be possible through the development of computer resources, creation of skilled human resources, introduction of ICT at every stage of education, and scholarships and fellowships for higher education in the field of ICT. All this would help develop Bangladesh into a "Digital Bangladesh," as envisioned by the government and reflected in Vision 2021.[105]

The UGC's Strategic Plan for Higher Education 2006–2026 emphasizes the use of ICT to improve the quality of higher education, based on the available efficient delivery options (e.g., computers, cellular phones, radio, TV, internet, etc.). Also, the government made ICT education compulsory at the secondary level in 2013. Out of 306 action items in the National ICT Policy 2009, 53 (equivalent to 17%) focused on HRD. The Bangladesh Skills Development Policy 2011 also identifies ICT as a "market skill." The National Strategy for Accelerated Poverty Reduction II emphasized the importance of ICT as an invaluable asset for improving the country's knowledge base via education, training, and research. All the 9 regional and 64 district offices of the DSHE, under the Ministry of Education (MOE), have internet connectivity; and efforts are underway to provide internet connectivity to all government schools and colleges.

As for tertiary education, the internet's capacity for two-way interaction offers the greatest promise for improving access and affordability, and for providing the flexibility to combine work with further study. Although specialized education in ICT should be encouraged to support the burgeoning IT industry, one should remember that a lack of effective general education could also hamper the use of new ICTs. For instance, education in the major languages, especially English, is key to expanding access to global content, together with the development of local-language websites for universal use.

According to an estimate by the UGC, 73 higher education institutions (15 public universities, 36 private universities, and 22 degree colleges) offer undergraduate programs in ICT, while 28 institutions offer master's degree ICT programs (with a total enrollment of

[103] Data for tuition fees were obtained from the websites and Student Handbooks of 2009 of the private universities. MBBS is Bachelor of Medicine and Bachelor of Surgery.

[104] Bangladesh has slow connection speeds and an internet penetration rate of just 4.08%.

[105] This was also envisioned in the Election Manifesto of the Awami League, which formed a government after the national elections in 2008, and is still in office as of early 2015.

about 17,000 students) and 4 universities offer PhD programs in ICT.[106] Another study by the UGC revealed that, in 2005, the teacher–student ratio in ICT programs was found to be 1:13 at private universities, 1:18 at public universities, and 1:11 at degree colleges affiliated with the National University.[107] The same study found that (i) the computer–student ratio was 1:23 at private colleges and 1:90 at government colleges; (ii) individual computer connections were rare; (iii) out of the 39 private universities offering ICT academic programs, all but 1 have internet service; (iv) a small proportion of public and private universities offering ICT-related programs have their own e-library, e-mail system, and webmail system; and (v) more emphasis is generally attached to the theoretical aspects of ICT than to its practical instruction.

All this suggests the need for the following:

(i) creating a strategic vision for ICT in higher education;
(ii) developing need-based programs and strategies;
(iii) developing a national academic network and global connectivity;
(iv) promoting the establishment of an e-library at all universities with Wi-Fi/WiMax connections;
(v) developing IT professional instructors capable of teaching at the university and college levels;
(vi) equipping colleges and universities with adequate computers and internet connectivity;
(vii) developing an ICT curriculum that takes into account the needs of business and government systems within and outside the country;
(viii) developing a unique ICT strategy for each higher education institution, including investment strategies for ICT-education development;
(ix) setting up a fund for ICT in higher education at the initiative of the government, to finance all required expenditures related to hardware, software, network infrastructure, academic staff training, digital libraries, and research and development; and
(x) establishing a national education network that would connect all public and private higher education institutions.

The government is committed to providing all universities (private and public) and research institutes with high-speed internet connectivity, as well as access to international research publications, through the UGC-implemented Bangladesh Research and Education Network, which will provide specialized internet services for the academic and research communities in Bangladesh. The network, which has the potential to function as the knowledge-center infrastructure throughout the country, will be supported by a high-speed network backbone.

The MOE is working in 128 *upazilas* (subdistricts) to build infrastructure for facilitating ICT services, and the Bangladesh Computer Council is providing internet connectivity (through EDGE modems) to 1,200 schools. The Prime Minister's office is also undertaking an initiative to coordinate all these efforts, and intends to connect all Union Parishads

[106] Government of Bangladesh, UGC. 2006. *Strategic Plan for Higher Education in Bangladesh 2006-2026.* p. 44.
[107] Government of Bangladesh, UGC. 2006. *Final Report of the Quality Group*. Dhaka. This survey was conducted by the UGC as part of the preparation of the Strategic Plan for Higher Education 2006–2026.

(lowest administrative unit in rural areas) with broadband internet connectivity and ICT services by 2016 or 2017. Under its Strategic Priorities of Digital Bangladesh program, the government will provide support to higher education institutions to prepare students for the employment market, which increasingly demands ICT skills. The government's primary focus will be on some 1,500 colleges affiliated with the National University. The prime minister's office has also placed a strategic priority on modernizing the Bangladesh Open University (BOU), developing a comprehensive plan to utilize the university for ICT-enabled secondary and tertiary education, teacher training, lifelong learning, and professional education.

F. Research

Bangladesh does not have a national strategy for research, and the role of universities in undertaking basic and applied research is affected by many constraints, such as the lack of funding, low or lack of motivation for research in terms of financial incentives and recognition, and meager logistical support. An effective mechanism for linking universities, research institutes, and industry and business, whether at home or abroad, has yet to be established.

At the prominent public universities, research is generally undertaken based on the faculty member's individual interests, without any direct application or conscious linkage to the needs of business or government. Most universities in Bangladesh do not have centers of excellence, except for a few. For example, the University of Dhaka, considered to be the country's premier university, is proud of having several research centers and bureaus in the major disciplines, including economics, business, natural sciences, humanities, renewable energy, semiconductor technology, biotechnology, environmental and disaster management, biomedicine, organic pollutants, and Bangladeshi culture. A culture of research needs to be developed in the private universities, but this will be very difficult because they are not allowed to offer research degrees (MPhils and PhDs). This is also true in several new public universities, and of the National University-affiliated colleges and BOU.

CHAPTER 4

Innovations and Good Practices

This chapter is largely based on the author's experience, observations, discussions and interview with prominent people at both public and private universities, visits to websites, and study of published records of the universities and the UGC.

A. System-Wide Innovations

At the national level, innovations in higher education are being encouraged at both public and private universities, with financial support from the Academic Innovation Fund (AIF) of the UGC and the World Bank. The AIF provides a competitive funding mechanism to improve the research capacity of university faculty; it is in the form of grants to academics based on transparent selection criteria. Under this scheme, 91 academics from 32 universities (29 public and 3 private) had received funds by December 2010 to come up with innovations to improve teaching, learning, and research in various disciplines. The AIF's efforts to support innovation at universities will remain a continuing endeavor on the part of the government, as a means of improving higher education standards. A few examples of innovative ideas being tested under the AIF are: (i) the design and implementation of a self-assessment exercise for civil engineering programs; (ii) development of an ICT-based interactive teaching and learning system to improve the academic quality of programs in the plant sciences; (iii) discipline-based learning enhancement in graduate urban-planning programs to meet the challenges of the 21st century; (iv) development of a design-process simulation lab for teaching, learning, and research; (v) development of an ultrasound-based elasticity imaging system for early cancer detection; and (vi) development of a microscopic traffic simulator, with mixed traffic simulation capability, for the evaluation of alternative transport options for Dhaka city.

Another good practice at the national level is the improvement of access to higher education through a more equitable geographical distribution of higher education institutions, as this would address the concentration of both public and private universities in the capital city. The government has been encouraging decentralization, as well as expansion in the number of universities in rural areas; in fact, it has committed to establishing one university in each district. The Private University Act 2010 has considerably relaxed the statutory reserve requirement, so that universities can be established outside Dhaka. Also, since 2008, several public universities have been established in districts closer to rural students (e.g., Barisal, Pabna, Gopalganj, and Rangpur).

However, the expansion of universities should be done with caution and adequate feasibility studies to avoid or minimize repercussions in terms of quality and costs. It should also be considered to seek consensus among or support from stakeholders. The existing universities have been suffering from a dearth of academic staff and funding, and cannot cover their developmental needs. Most universities, private and public, are struggling to build libraries, computer labs, science labs, and recreational facilities for their students. The first step is to develop a national strategic plan that would, inter alia, include a pragmatic analysis of the need for expanding and/or establishing new tertiary institutions, the cost implications, and the probable outcomes and impacts. Other options may be considered. For example, some of the larger reputed colleges in rural towns could be supported to transform into universities. An unwieldy expansion of the quantity of higher education institutions, with little attention paid to quality, would be widely perceived as an ill-conceived effort in pursuit of a partisan political agenda.

The 5-year (2009–2013) Higher Education Quality Enhancement Project initiated a few reforms in the tertiary sector. The project sought to improve the quality of educational and research capabilities of the tertiary education institutions by encouraging both innovation and accountability, and by enhancing the technical and institutional capacity of the higher education sector. Three major accomplishments have resulted from the program, where: (i) about 100 grants were awarded to faculty members that would strengthen research capabilities in universities; (ii) the Bangladesh Research and Education Network was established at the UGC to build connectivity capacity for universities and research centers; and (iii) advanced training programs were conducted for higher education administrators, including UGC officials.[108]

B. Institution-Based Good Practices

Participatory learning. In both their undergraduate and graduate programs, the top private universities are using participatory educational methods to supplement course lectures. Participatory methods such as group projects, class discussions, presentations, role-playing, and internships are effectively helping students to learn spontaneously and develop their creativity. Participatory educational approaches are also being used in some public universities, especially in business courses. The University of Dhaka's Faculty of Business Studies and Institute of Business Administration have been using participatory techniques, including the case study method, individual and group presentations, group exercises, and practical internships in related businesses or organizations. The Faculty and Institute also occasionally involve business executives in developing and revising their curricula, and they arrange special talks by senior executives.

Modern approaches to evaluation. Private universities in Bangladesh follow a credit-based letter-grading system in place of the traditional British-oriented annual evaluation and class/division system. Rather than awarding classes ("first class," "second class," and "third class"), these universities give students letter grades—a practice that is prevalent in most advanced countries. And unlike the traditional approach of evaluating students solely on the basis of examinations, the credit-based letter-grading system combines participation-

[108] The project's total budget was $681 million. It was supported by the World Bank and implemented by the UGC.

and examination-based evaluation. In this system, written exams are supplemented by classroom activities, case analyses, presentations, homework and term papers, tests and quizzes given in class, etc. The new evaluation system seems to have helped the universities overcome the shortcomings of the long-standing outdated approach.

Public universities in Bangladesh generally follow traditional practices, with little innovation in their evaluation systems. But a few academic departments and institutes, particularly the University of Dhaka's Faculty of Business Studies and Institute of Business Administration, have recently introduced grading systems similar to those of US universities, moving away from the traditional examination-based evaluation system.

The 4-year bachelor's and 2-year master's degrees. It was the private universities that first championed the establishment of the 4-year bachelor's degree. Public universities simply followed suit. The undergraduate programs at the public universities had traditionally required 3 years of study, and master's degree programs 1 year. But the private universities, from the very day of their inception, started undergraduate programs of 4-year duration and graduate programs of 1-year and 2-year duration. Most public universities are now following suit because 4-year undergraduate and 2-year graduate programs conform to international practice.

University–industry linkage. In 2004, the University of Dhaka's Institute of Business Administration established the University & Industry Alliance, a special unit within the institute devoted to cultivating a strong relationship between the university and the business community. The Alliance provides a wide range of training and development services to meet the needs of specific industry and individual clients, including both customized courses and off-the-shelf short courses in various functional areas of management. It follows a partnership approach with its clients when developing and conducting programs, and utilizes a large pool of consultants, researchers, and trainers with a wide range of functional expertise. Although the Alliance's key strengths lie in the areas of management and education, it frequently cooperates with its partner institutions at home and abroad to provide training and development services in other fields, such as the natural sciences, social sciences, biosciences, ICT, environmental studies, humanities, and engineering. However, the Alliance should also help develop or improve the university's curricula and course content, in collaboration with the business community. The Dhaka University Alumni Association has been working with the university to build infrastructure, develop academic facilities, and boost alumni contributions.

Foreign collaboration. Universities such as North South University (NSU), East West University (EWU), and the Independent University, Bangladesh (IUB) endeavor to improve the quality of their undergraduate and graduate programs by developing long-term partnerships with several reputable universities abroad.[109] Collaboration has occurred in curriculum development, teacher and student exchanges, and credit transfers; and these ties have paved the way for knowledge transfer and reciprocal improvements in academia. An innovative program is in place at IUB, known as the "Live-in-Field Experience" (LFE). This program invites US students to join IUB students once a year in spending 2 weeks in

[109] These partnerships were with universities in Australia, Canada, Egypt, France, Indonesia, Iran, Jordan, Kingdom of Saudi Arabia, the Republic of Korea, Malaysia, the Netherlands, Thailand, the United Kingdom, and the United States.

villages to study rural life. It is sponsored by the US-based Higher Education Consortium for Urban Affairs.

Promoting market relevance. In general, private universities offer market-oriented academic programs. In order to further improve the relevance of these programs to the target job markets, the top private universities are utilizing the services of senior executives from business and industry in conducting the programs, along with their regular academic staff.

A case study conducted in 2007 of two first-generation private universities, North South University (NSU) and the University of Science and Technology, Chittagong, revealed that the graduates of these universities got jobs faster and had lower unemployment rates than graduates of public universities. The study also revealed that the average salaries of private university graduates were significantly higher than those of their public university counterparts. However, the study did not provide any detailed reasons for the better performance of the graduates of these two private universities in the job market, though it did suggest that "due to intensive course work and a more caring educational atmosphere, [the graduates] are better trained and motivated," and that private employers "have some positive attitudes toward these private university graduates. This is because of their training, skill and work motivation, which contrasts significantly with the set of graduates churned out by the public universities."[110]

Library automation. Some universities, particularly NSU, EWU, and IUB, have each implemented a fully automated system for library management. Their online databases give users access to information through a local network and the internet. The computers in the library are linked to a local server, and users, including students and faculty, can search library resources from their homes. These universities also post examination results on their websites. Students can access the university websites with individually assigned passwords. IUB uses a campus-wide information service and maintains a catalog using Cascading Style Sheets and the Integrated Student Information System. Its library website provides access to the library catalog; periodical databases; and its electronic library, which contains journals stored through EBSCO, Emerald, JSTOR, HINARI, and the Oxford University Press. No public university library in Bangladesh has such an extensive automated system.

Enhancing student creativity. Some private universities have established and/or helped their students establish student clubs of various types, in which students can not only entertain themselves, but also unleash their potential. Such clubs include the Pharma Society, Young Economists Forum, Computer Club, Photography Club, Cinema and Drama Clubs, Debating Club, Earth Club, English Club, MBA Club, and the Wireless Forum. NSU and EWU are particularly rich in these student clubs.

Financial innovations. The University of Dhaka has been successfully developing the academic environment and strengthening the learning resources at the Faculty of Business Studies and the Institute of Business Administration by introducing self-financed evening MBA programs in such fields as management, accounting, marketing, international

[110] M. Alam et al. 2007. *Private Higher Education in Bangladesh.* Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO), International Institute for Education Planning (IIEP). Paris. p. 48.

business, management information systems, banking, tourism and hospitality management, and finance. The university receives substantial revenues from these evening programs because no significant additional investment is needed, as the programs use existing facilities. This constructive approach may be replicated in some other disciplines for which there is a strong market demand.

Although not well-documented or publicized, a few financial innovations have taken place at private universities. At EWU, for instance, private philanthropies are sought for support in providing tuition payments and related costs for less well-off but qualified Higher Secondary Certificate graduates admitted into the university. A twinning of fellowship-granting philanthropists and award-winning students has brought in a number of welcome developments, including enhancing the quality of the student intake and increasing accountability among everyone involved (awardees, donors, and the institution).

CHAPTER 5

Summary of Major Challenges and Recommended Interventions

The structural reforms in higher education in the 1970s and 1990s introduced autonomy and a new system of academic program management into the public universities. The deregulation of the higher education system also stimulated the establishment of private universities. Since the 1990s, the country has seen a proliferation of new public and private universities. This chapter summarizes the major challenges in the country's higher education system, followed by recommendations on interventions.

A. Major Challenges in Higher Education

Equitable access. Although enrollment in the higher education institutions increased by 23% from 2001 to 2009, with a trend of increasing female participation (24% to 38%), regional disparities in access to higher education are still evident. Tertiary enrollment is heavily concentrated among the richest quintile, accounting for two-thirds of all students. It is true that more rural students have been able to enroll in higher education institutions due to the establishment of public universities in rural areas. Moreover, the public universities subsidize student fees and residential facilities. But there are no state-sponsored loans or scholarships, and private university students receive no state assistance at all. The lack of financial assistance in the form of student loans is causing Bangladesh to lose out considerable talent from its low-income households. Moreover, secondary and higher secondary graduates who are inadequately prepared for higher education do not have access to remedial courses.

Quality and relevance. Empirical evidence regarding the quality of higher education in Bangladesh is scarce. However, the views of faculty members and education administrators at both public and private institutions indicate that the quality of higher education varies widely between the public and private sectors and across individual institutions. As stated in the UGC's Strategic Plan for Higher Education 2006–2016, the government is deeply concerned about the quality of both the public and private universities. Particular attention has been given to the National University and its affiliated colleges and institutes.

There is also no clear strategy on how to respond to industry's demand for particular skills. An instructor or professor usually directs the learning process, while the students get little chance to practice and participate in achieving the desired learning outcomes. Even at the University of Dhaka's Faculty of Business Studies and Institute of Business Administration, and even in the few relatively innovative first-generation private universities, students

do not usually find any opportunities to complete their thesis or project work in real-life environments. There is thus a need to refocus higher education curricula toward competencies that match the demands of the economy. Bangladesh needs quality human capital that can steer the nation toward its vision of development. This will require the cultivation of "soft skills" such as communication skills, critical thinking, problem-solving skills, teamwork, lifelong learning, information management, entrepreneurial skills, ethics and professionalism, and leadership skills, among higher education students. Although soft skills serve as critical complements to the "hard" professional and technical skills, they are not given much consideration in higher education. The curricula, teaching and learning process, and examination system in the higher education institutions should be redesigned to ensure that all students acquire these soft skills.

Governance. University governance is shaped mainly by the extent of accountability and autonomy. The public universities largely enjoy autonomy in their internal management (both academic and administrative). However, this autonomy has not been adequately balanced with accountability when it comes to results. This is very important, given the government's commitment to establish at least one public university in each of Bangladesh's 20 greater districts. One concern is that the lack of accountability for performance is due, at least in part, to a pervasive politicization of the higher education system. The financial autonomy of public universities is also seriously compromised, due to their heavy dependence on the public exchequer for both their recurrent and developmental funding. Despite the fact that governance arrangements for higher education are defined in legislation concerning the public university system and in legislation establishing specific institutions, there is no umbrella legislation covering higher education as a whole. The challenge is to have a comprehensive law to cover the entire higher education system in Bangladesh, including all higher education institutions in both the private and public sectors.

Funding. Bangladesh allocates about 11% of its total education budget to higher education, compared with the international benchmark of 15%–18%. In terms of percentage of gross domestic product (GDP), Bangladesh's spends an average of only 0.12% of its GDP on higher education, compared with the South Asia regional average of 2.9%, suggesting a need to boost the figure to reach at least the South Asian mean.

An associated challenge is the need to rationalize the budgeting process at the public universities. The universities' traditional incremental budgeting system needs to be reformed, as the budgeting process has a correlation with staff morale, management efficiency, and organizational innovation. There is also a pressing need to address the inflexibility of budget implementation which exists due to the legal requirements that (i) public universities adhere strictly to spending based on per-budget items, with no transfers allowed even when strongly needed; and (ii) that they turn over their own-generated income to the national treasury.

Funding diversification is rare in most public universities, but it could be allowed if government allocations to universities were made on the basis of determined needs.

Nonuniversity higher education. Bangladesh's system of higher education also encompasses a large number of technical institutes and colleges. These institutions

are producing "technical" graduates and professionals, but have not been supported adequately even though the present government emphasizes the importance of technical education, as manifested in the Skills Development Policy 2010–2015. There is a lack of complementarity or linkage between universities and nonuniversity higher education institutions. For instance, students with a 3-year diploma in engineering from a technical college are not admitted into technical universities, and cannot transfer their earned credits to a university for a higher degree. Policy intervention may be necessary to address the lack of mobility pathways of students from nonuniversity institutions to universities, to include a credit transfer scheme. However, this intervention would require the introduction of a credit-based academic system in both the nonuniversity institutions (which offer shorter-duration degree or certificate programs) and the universities (which offer longer-duration degree programs).

B. Recommended Interventions

Provided below are proposed broad interventions to address the issues outlined in this report. These proposals intend to improve the overall environment of higher education, including such aspects as access and equity, quality assurance, relevance, management and governance, infrastructure, financing, budget allocation, and data gathering on higher education.

Access and equity improvement. The size of secondary and higher secondary education has substantially expanded since 2005 due to the substantial investment, including Primary Education Development Program (PEDP I) and the Second Primary Education Development Program (PEDP II) in primary education and the Secondary Education Development Program, Female Secondary School Assistance Project II, Female Secondary Assistance Project, Secondary Education Sector Improvement Project, Secondary Education Sector Development Program, and other stipend-granting and development projects and programs for secondary and higher secondary education.

The UGC envisions a gross enrollment rate of 15% in higher education, to be achieved by the year 2026. According to UGC projections, the number of Higher Secondary Certificate graduates will be 548,178 in 2015 (at a 5.21% growth rate) and 942,696 in 2026 (at a 7.93% growth rate).[111] At a 5.21% growth rate, a total of 1,845,476 incoming Higher Secondary Certificate graduates will have to be accommodated at the tertiary level in 2026—1,568,655 at the National University and Bangladesh Open University (BOU), and 276,821 at the private and other public universities. These figures are based on the assumption that the National University and BOU could continue to accommodate around 85% of the total number of tertiary students. At an annual growth rate of 7.93%, the total number of projected tertiary students would be 3,496,135 in 2026. This implies tremendous pressure on tertiary institutions in terms of access, which will necessitate the expansion of physical facilities and human resources in the existing higher education institutions and/or the creation of new public and private universities. As the establishment of new institutions is extremely expensive and may not be cost-effective, more pragmatic measures should be considered, such as expanding BOU; allowing private universities to operate distance

[111] The official age group for calculating the GER for tertiary students is 20–24 years.

education programs (without compromising quality); granting permission to international universities to open campuses in Bangladesh; and providing facilities for e-learning in higher education, especially through the creation of virtual universities. Government interventions should also include support to private higher education institutions through land allocations, reductions in the required statutory reserves, tax exemptions on income, tax rebates for the importation of educational equipment and materials, and the provision of loans for their students.

A national student loan scheme could also be introduced for qualified but financially wanting students to make access to higher education more equitable. More and more stakeholders are advocating student loan programs for the reason that, although students at public universities pay very low tuition fees, they have to manage other personal expenditures (e.g., transportation, books, stationery, and accommodations) that still burden low-income families and sometimes result in students quitting their studies. A stipend program for students from low-income families should therefore be explored. A loan program may also be suitable for students whose parents can bear at least a part of the costs, and who are willing to repay the loan once the students have completed their academic programs and started working.

Quality assurance. Bringing substantial improvement to the quality of higher education will involve essential reforms, including policy interventions to support improved teaching and learning in all academic fields, as well as targeted interventions for specific high-priority technologies (e.g., biotechnology, nanotechnology, and solar technology), engineering, agriculture, and the sciences.[112]

Improving the quality of higher education could also be achieved by modernizing outdated curricula after a thorough review, updating of instructional methodologies, improvement of teaching strategies of faculty through training and professional development programs, and provision of better facilities for academic research. The universities could start the process of significantly improving quality in these areas, since such reforms are expected to cost very little at their level, and could proceed without authorization from higher authorities. The only requirements are political will and leadership on the part of both each university's administration and its various academic departments.

Bangladesh does not have a national accreditation body for higher education institutions and their programs. In the absence of such oversight mechanism, difficulties arise in assessing the quality of services rendered by the higher education institutions. To address this issue, the government needs to form a quality assurance body for higher education that would accord accreditation to both public and private higher education institutions based on a set of standards for inputs, processes, and outputs. In this regard, Bangladesh can learn, for example, from the Indian experience. India's UGC established the National Assessment and Accreditation Council in 1994 as an autonomous organization under the Karnataka Societies Registration Act 1960 (equivalent to the Societies Registration Act of 1860, which currently applies in Bangladesh).

[112] Policies to enhance teaching and learning in higher education institutions might include: greater ICT access; classroom furniture suitable for group work; readily available audiovisual equipment; well-equipped science and computer laboratories; and improved library facilities, with online journals and other publications, a sufficient number of books, a wide collection of dissertations, and generous book-lending facilities.

Several Asian countries, including Singapore and Malaysia, have benefited tremendously from partnering with globally reputed higher education institutions. Bangladesh should learn from their experience and initiate similar international partnerships.

Relevance. In the absence of systematic regular tracer studies or surveys on university graduates, the labor market experience of tertiary education graduates, as well as the current relevance of higher education to the domestic and international job markets, is difficult to assess. To overcome this problem, two interventions will be necessary: (i) introducing and continuing a regular mechanism for conducting periodic tracer studies, with subsequent use of the information from those studies in academic planning at the tertiary level; and (ii) regular analyses of labor force survey and employment data to obtain a clear idea of how well-equipped higher education graduates are for the labor market. This information, combined with the tracer study results, would facilitate better-informed policy making in higher education.

There is no clear mechanism at the national level for forecasting the demand for tertiary graduates in the various sectors of the Bangladeshi economy, or for predicting the numbers and skills of tertiary level graduates. The consequence is that surplus graduates are being produced in most disciplines, especially in the liberal arts and in science and technology. This is a challenge that the government must address by setting up and/or assigning a special unit within the Ministry of Education (MOE) that would assess the demand for and supply of tertiary graduates on an annual basis. The Planning Cell of the MOE could be assigned this responsibility, along with devising capacity-building and institutional-strengthening measures. Based on the supply and demand information, the MOE could develop medium-term and long-term national higher education graduation plans, to be updated annually, and instruct the universities to prepare their admissions policies accordingly. This would help produce the number of graduates that would match the demand in the job market.

Management and governance. Appropriate interventions are essential for improving university governance, especially at the private universities. The existing rules for private institutions, based on the Private University Act 2010, inadequately define the roles and responsibilities of the university board of trustees, board of governors, syndicate, academic council, chief executive officer, vice chancellor, and of the university administration in general. This lack of clarification often results in tension and misunderstanding among the participants and stakeholders. Private universities thus need common framework or set of rules or statutes (similar to the statutes at the public universities) under the tutelage of the MOE. The rules would be applicable to all private universities in the country. However, the universities could set further rules of their own as necessary for effective and efficient internal management in accordance with the common state-formulated overarching framework or guidelines.

Infrastructure. In anticipation for a significant increase in the number of students attending higher education institutions in the near future. Substantial improvements in primary, junior secondary, secondary, and higher secondary education are expected to push tertiary enrollment upward. The UGC's projected enrollment rate of 15% would require at least 28 new public and private universities by 2025. According to estimates by the UGC, this could cost up to Tk269.18 billion, which would greatly strain the state's

resources. An alternative would be to focus on improving and expanding existing higher education institutions, especially the National University and Bangladesh Open University. All colleges and institutes affiliated with the National University could be allowed to grow as independent centers of excellence within the common prescribed academic framework and standards.

Financing. The financing of further improvement and expansion of higher education institutions should be accompanied by capacity building for resource-generation measures such as increasing tuition and other student charges. However, student cost-sharing through higher tuition and fees is very unlikely to happen in the near future: the student community would vehemently oppose it, as has been the case in the past. Therefore, a national consensus is needed before any action could be taken in that direction. The UGC's Strategic Plan for Higher Education 2006–2016 has emphasized the need for institutions to increase their self-generated income, especially the universities; however, they have little capacity to substantially increase their income. Establishing strong links with their alumni and with the business community which can help them raise funds is one way of generating additional resources. Public–private partnerships and university–industry linkages are also viable options for financing many needs of the universities. Expansion of these higher education institutions may also be supported by development partners through the government.

Budget allocation. The public universities need to rationalize their budget-allocation systems. They currently prepare their annual budgets on a historical basis rather than on a more scientific, need-oriented zero-based budgeting system. To overcome the shortcomings of the traditional budgeting system, public universities need to follow zero-based budgeting, which requires determining the university's actual needs and then estimating the costs of meeting those needs. Based on the cost estimates, the government could be requested to provide separate funds for recurrent and developmental expenses.

Data gathering on higher education. Policy makers and planners in the higher education sector need to pay serious attention to the generation of adequate information regarding higher education issues, including the nonuniversity institutions and higher education madrassas. Data is currently very scant, inadequate, and mostly provided on a voluntary basis by the institutions to the UGC. Madrassa-related information is scattered and mostly unavailable. No comprehensive research has been done involving all the higher education institutions and relevant stakeholders, especially those in the business community and civil society. There is thus an urgent need to conduct comprehensive research to generate data that could serve as the foundation for information system that could inform policy making and planning. Furthermore, to understand what proportion of tertiary graduates is getting appropriate jobs, and how the job market is assessing the relevance of their training, undertaking regular tracer studies of higher education graduates, including those from the madrassas, must be considered.

APPENDIX 1

Background Information on Bangladesh

Bangladesh is a multiparty democracy with a parliamentary form of government. The Prime Minister is the head of the government and the President is the head of the state. The judiciary administers civil and criminal justice, while the ministries constitute the executive branch. Bangladesh has seven divisions (administrative regions); 64 districts; and 503 *upazilas* (subdistricts), the lowest tier of the administrative system, with several union *parishads* (union councils) in each *upazila*. With regard to education, the national government is concerned with formulating policy, planning, and overseeing the entire system, while the districts and *upazilas* play an active role in the management and provision of education, particularly primary and secondary education, including technical and vocational education and training.

Bangladesh is a riverine country that spans across a small landmass covering 147,570 square kilometers (km^2), or about 116,252 km^2 excluding the rivers and forests.[1] It is a resource-poor country, but has a great potential for attracting foreign direct investment due to its abundant cheap labor. Although urbanization has been rapid since 2010 , about 75% of Bangladesh's population still resides in rural areas. Ethnic minorities constitute 1.41 million people (1.01% of the total population). More than 98% of the population are Bengalis, with the remainder comprising Biharis, non-Bengali Muslims, and indigenous tribal peoples. Bangladeshis are particularly proud of their rich cultural and linguistic heritage. In fact, their struggle for independence was partly the result of a powerful movement to uphold and preserve their language and culture.

Bengali, the national language, is spoken by about 99% of the population, though English is generally used as the second language. Of those who speak a language other than Bengali or English at home (mainly tribal languages), the highest numbers are those who speak Chakma and Marma. Some tribal dialects—such as Chakma, Marma, Garo, and Khasia—are being used as the languages of instruction in preprimary and primary education.[2] Bangladesh is about 89.7% Muslim, and ranks third in Islamic population worldwide, after Indonesia and Pakistan. Other religious faiths in Bangladesh include Hinduism (9.2%), Buddhism (0.7%), Christianity (0.3%), and others (0.1%); and there is excellent communal harmony.

1 Government of Bangladesh, Bangladesh Bureau of Statistics. 2009. *Statistical Pocket Book Bangladesh–2009*. Dhaka.
2 Government of Bangladesh, Ministry of Primary and Mass Education. 2008. *Bangladesh EFA MDA National Report* 2001–2005. Dhaka. p. 25.

Poverty reduction is the central development challenge in Bangladesh. The country has made significant strides in reducing poverty since the 1990s, with more advances in reducing human poverty than in reducing income poverty.[3] This progress has been largely due to the government's substantial investments in education and health, and to the contributions of nongovernment organizations (NGOs) to many economic- and social-empowerment activities.

[3] Income poverty measures poverty solely in terms of monetary income, whereas human poverty includes several dimensions, including material deprivation (e.g., lack of a proper diet, clothing, and shelter) and social deprivation (e.g., denial of employment, of participation in social institutions, and education).

APPENDIX 2

List of Public, Private, and International Universities in Bangladesh, 2010

Name of University	Year Established	Location (district)
PUBLIC UNIVERSITIES		
General Studies		
University of Dhaka	1921	Dhaka
University of Rajshahi	1953	Rajshahi
University of Chittagong	1966	Chittagong
Jahangirnagar University	1970	Dhaka
Islamic University	1985	Kushtia
Khulna University	1991	Khulna
National University	1992	Gazipur
Jagannath University	2005	Dhaka
Comilla University	2006	Comilla
Jatiya Kabi Kazi Nazrul Islam University	2006	Mymensingh
Begum Rokeya Rangpur University	2010	Rangpur
Bangladesh University of Professionals	2010	Dhaka
Science and Technology		
Bangladesh University of Engineering and Technology	1962	Dhaka
Shahjalal University of Science and Technology	1987	Sylhet
Hajee Mohammad Danesh Science & Technology University	2002	Dinajpur
Mawlana Bhashani Science and Technology University	2001	Tangail
Patuakhali Science and Technology University	2002	Patuakhali
Chittagong University of Engineering & Technology	2003	Chittagong
Rajshahi University of Engineering & Technology	2003	Rajshahi
Khulna University of Engineering & Technology	2003	Khulna
Dhaka University of Engineering & Technology	2003	Gazipur
Noakhali Science and Technology University	2006	Noakhali
Jessore Science and Technology University	2007	Jessore
Pabna University of Science and Technology	2010	Pabna
Agricultural and Medical		
Bangladesh Agricultural University	1961	Mymensingh
Bangabandhu Sheikh Mujibur Rahman Agricultural University	1998	Gazipur

continued on next page

Appendix 2 continued

Name of University	Year Established	Location (district)
Bangabandhu Sheikh Mujib Medical University	1998	Dhaka
Sher-e-Bangla Agricultural University	2001	Dhaka
Sylhet Agricultural University	2006	Sylhet
Chittagong Veterinary and Animal Sciences University	2006	Chittagong
Distance Learning		
Bangladesh Open University	1992	Gazipur
PRIVATE UNIVERSITIES		
North South University	1992	Dhaka
University of Science and Technology, Chittagong	1992	Chittagong
Independent University, Bangladesh	1993	Dhaka
Darul Ihsan University	1993	Dhaka
International University of Business Agriculture and Technology	1993	Dhaka
International Islamic University Chittagong	1995	Chittagong
Ahsanullah University of Science and Technology	1995	Dhaka
American International University – Bangladesh	1995	Dhaka
Asian University of Bangladesh	1996	Dhaka
East West University	1996	Dhaka
The University of Asia Pacific	1996	Dhaka
Gono Bishwabidyalay	1996	Dhaka
The People's University of Bangladesh	1996	Dhaka
Dhaka International University	2000	Dhaka
BRAC University	2001	Dhaka
Manarat International University	2001	Dhaka
Bangladesh University	2001	Dhaka
Leading University	2001	Sylhet
BGC Trust University Bangladesh	2001	Chittagong
Sylhet International University	2001	Sylhet
University of Development Alternative	2002	Dhaka
Premier University	2001	Chittagong
Southeast University	2002	Dhaka
Stamford University, Bangladesh	2002	Dhaka
Daffodil International University	2002	Dhaka
State University of Bangladesh	2002	Dhaka
International Business Administration and Information System University	2002	Dhaka
City University	2002	Dhaka
Prime University	2002	Dhaka

continued on next page

Appendix 2 continued

Name of University	Year Established	Location (district)
Northern University Bangladesh	2002	Dhaka
Green University of Bangladesh	2002	Dhaka
Southern University Bangladesh	2003	Chittagong
World University of Bangladesh	2003	Dhaka
Shanto-Mariam University of Creative Technology	2003	Dhaka
The Millennium University	2003	Dhaka
Eastern University	2003	Dhaka
Bangladesh University of Business and Technology	2003	Dhaka
Metropolitan University	2003	Sylhet
Uttara University	2003	Dhaka
United International University	2003	Dhaka
Victoria University of Bangladesh	2003	Dhaka
University of South Asia	2003	Dhaka
Presidency University	2003	Dhaka
University of Information Technology and Sciences	2003	Dhaka
Primeasia University	2003	Dhaka
Royal University of Dhaka	2003	Dhaka
University of Liberal Arts Bangladesh	2003	Dhaka
Atish Dipankar University of Science and Technology	2004	Dhaka
Bangladesh Islami University	2005	Dhaka
ASA University Bangladesh	2006	Dhaka
East Delta University	2006	Chittagong
(banned by the government)		
INTERNATIONAL UNIVERSITIES		
Islamic University of Technology	2001	Gazipur
The Asian University for Women	2009	Chittagong

Note:

1. Most of the founding dates given in this table indicate the years when the institutions achieved university status/started formal operations.
2. The public universities established/started functioning after 2010 are: Bangladesh University of Textiles, Barishal University, Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangabandhu Sheikh Mujibur Rahman Science and Technology University-Gopalganj, and Rangamati University of Science and Technology.
3. As of 2010, Bangladesh had a total of 84 universities (31 public, 51 private, and 2 international); the number of universities per district are: Dhaka-49; Gazipur-5 (including one international university); Rajshahi-2; Chittagong-10 (including one international university); Kushtia-1; Khulna-2; Comilla-1; Mymensingh-2; Rangpur-1; Sylhet-5; Dinajpur-1; Patuakhali-1; Pabna-1; Tangail-1; Noakhali-1; Jessore-1.

Source: UGC. 2010. Annual Report, 2010. Dhaka.

APPENDIX 3
Bangladesh's Educational System

The overall educational system in Bangladesh has three streams: general, madrassa (Islamic), and technical and vocational. General education has six levels: preprimary, primary, junior secondary, secondary, higher secondary, and tertiary education. Madrassa education has five levels: *Ebtedayee, Dakhil, Alim, Fazil,* and *Kamil*. The levels for technical and vocational education are more complicated, but all three streams are laid out in Figure A4, and this appendix provides a detailed discussion of every level of Bangladesh's educational system.

A. Early Childhood Development and Preprimary Education

Early childhood education or preschool education (baby classes, playgroups, kindergarten 1 and 2) caters to children below age 6. There are many "baby" (or other preschool) classes attached to primary schools, and many privately owned kindergartens with playgroup or nursery sections, but their impact on the children's development in Bangladesh has not been studied in detail. In 2012, the government introduced 1-year preprimary education in all the government primary schools (37,672) under the Third Primary Education Development Program (PEDP III).

Four ministries provide early childhood care services: the Ministry of Primary and Mass Education (baby classes and playgroups in primary schools); the Ministry of Women and Children Affairs (day care centers and preprimary education); the Ministry of Health and Family Welfare (immunization and nutrition); and the Ministry of Social Welfare (orphanages and children's homes). There is no national mechanism to coordinate all these ministries. However, in 2009, the Ministry of Women and Children Affairs mobilized actors across the public and private sectors to implement the Bangladesh Shishu Academy, which offers gender-integrated preprimary education.

B. Primary Education

Primary education is compulsory and tuition-free. It extends over a 5-year period (grades 1–5) and caters to children ages 6–11.[1] It is provided by 10 types of primary schools.[2] However, three of them—government primary schools, registered nongovernment primary schools, and community schools—dominate the primary education system. The government primary schools are fully public-financed. The registered nongovernment primary schools receive a salary subvention (for teachers, administrators, and support staff) at a rate of 100% of the basic salary, while the community schools receive a partial salary subvention for their teachers. There are also private primary schools, including kindergartens, which provide education that varies in duration and content. The medium of instruction at the primary level is Bengali (the mother tongue), but kindergartens usually use English as the medium of instruction. In all primary schools, the students receive free textbooks from the National Curriculum and Textbook Board under the Ministry of Primary and Mass Education.

The introduction of free education for girls up to grade 12 and the provision of financial aid for girls in rural areas have not only accelerated enrollment and completion rates among girls, they have helped achieve gender parity in primary education. The gender parity index for primary education attendance in 2009 was close to 1.0, indicating no difference between girls and boys.

The National Education Policy 2010 and other policy documents reflect the Government of Bangladesh's emphasis on four policy directions concerning primary education: (i) establishing an integrated school system encompassing the preschool to higher secondary levels within a unified framework of public and private education providers; (ii) reducing class size and improving teaching methods in order to improve academic quality; (iii) decentralizing planning and management; and (iv) utilizing public–private partnerships in the provision of primary education.

C. Nonformal and Adult Education

The nonformal education program serves out-of-school children aged 8–10, adolescent boys and girls aged 11–14, adults aged 15–35, and neo-literates. In order to stop neo-literates' relapse into illiteracy, the government has established libraries to provide opportunities for lifelong continuing education. Supervisors and teachers have been trained and provided with primers, teachers' guides, teachers' training manuals, and supervisors' training manuals. These continuing education programs are implemented partly by the government, but mostly by nongovernment organizations (NGOs).

[1] However, the National Education Policy 2010 proposes the extension of mandatory primary school education to a total of 8 years. As of early 2015, it is still awaiting implementation.

[2] The 10 types are: (i) government primary schools (GPS), (ii) registered nongovernment primary schools (RNGPS), (iii) experimental schools, (iv) community schools, (v) nonregistered nongovernmental primary schools, kindergarten, (vi) nongovernment (NGO) schools, (vii) primary sections of secondary schools, ebtedayee madrasahs, (viii) primary sections of dakhil, (ix) alim, fazi, and (x) kamil madrasahs. Source: http://www.unicef.org/bangladesh/

Nonformal education has been found to be highly effective in Bangladesh in addressing the problem of large-scale illiteracy, especially adult illiteracy, without removing people from their normal environments (where they live and work) and responsibilities. It is sufficiently diverse and enjoys adequate flexibility in organization, funding, and management; and it emphasizes community initiative, self-help, and innovation on the part of the people and their local institutions.

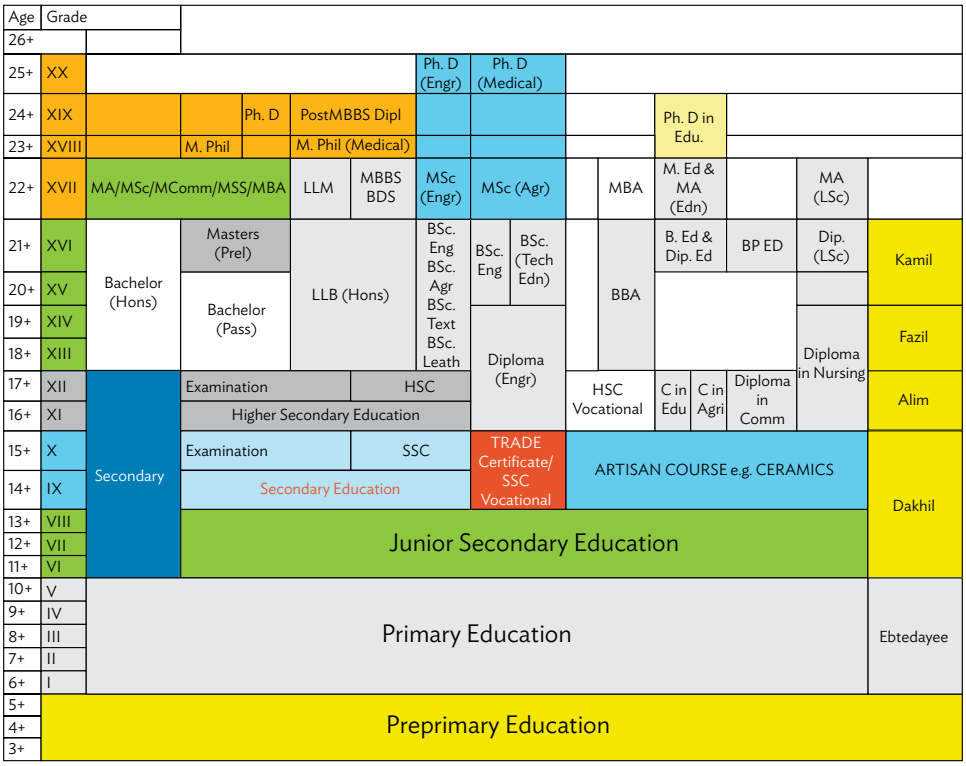
D. Junior Secondary, Secondary, and Higher Secondary Education

Secondary education consists of three stages: junior secondary, which includes grades 6–8 (ages 11–13); secondary, grades 9–10 (ages 14–15); and higher secondary, grades 11–12 (ages 16–17). The first two stages are offered at junior secondary schools and secondary schools, respectively. Higher secondary education is offered at higher secondary schools, intermediate colleges, and in the intermediate sections of degree colleges. General public examinations are held at the end of grades 5 and 8. Another public examination, the Secondary School Certificate (SSC) exam, is held at the end of grade 10, and must be passed by all candidates seeking to proceed to the higher secondary level. At the end of grade 12, there is another public examination—for the Higher Secondary Certificate (HSC), which is required for admission into bachelor's degree programs. For madrassa students, the equivalent of the SSC is the *Dakhil* examination, and for the HSC it is the "Alim" examination.

The main objectives of secondary education are (i) to extend and consolidate primary education, (ii) provide students with a foundation of knowledge in various subjects and help them realize their potential, (iii) prepare skilled human resources for the country's economic development, and (iv) enable the students to take an active part in society as responsible and productive citizens. The subjects taught at the secondary level include languages, mathematics, science, religion, history, geography, economics, civics, home economics, the environment, and arts and crafts. There are two major types of secondary schools: government and nongovernment (including Dakhil madrassas). Nearly 98% of the secondary and higher secondary institutions are owned and managed by the private sector. However, these institutions are private in name only because 90% of the salaries and wages, as well as the costs of infrastructure development, durable educational supplies, and equipment, are covered by the government.

There are seven boards of Intermediate and Secondary Education (one for each division, i.e., region), in addition to the Bangladesh Madrasah Education Board and the Bangladesh Technical Education Board (BTEB). These autonomous boards are responsible for the accreditation of nongovernment secondary education institutions, the supervision for quality assurance, and the administration of public examinations at the secondary (SSC) and higher secondary (HSC) levels.

Figure A3: Flow Diagram of the Structure of Education in Bangladesh



Source: Government of Bangladesh, Ministry of Education. http://www.moe.gov.bd

E. Technical and Vocational Education and Training

There is a separate stream for technical and vocational education and training. After completing grade 8, a student may enter a vocational training institute to earn a 2-year SSC (vocational or science). Certificate holders may then enter vocational training institutes or polytechnic institutes for the 2-year HSC (vocational) or 4-year engineering "diploma" program.

The entry requirement for the SSC is 8 years of schooling (i.e., primary and junior secondary); and for the HSC or engineering "diploma," 10 years of schooling (i.e., primary, junior secondary, and SSC). The HSC (vocational) program helps students develop skills in various vocations and trades. The engineering "diploma" program prepares students for technical fields, civil engineering, mechanical engineering, electrical engineering,

electronics, architecture, chemistry, food technology, printing, ceramics, and surveying. Public examinations are held for these programs under the auspices of the BTEB, which awards diplomas and certificates to the successful students. [3]

F. Madrassa Education

The madrassa education system is parallel to that of the government, with similar core courses from the primary to tertiary levels, but also including an emphasis on Muslim religious studies. Madrassa education has two streams, the Alia and Quomi, both of which mainly use Arabic as the medium of instruction. The Alia system is recognized by the government and regulated by the Ministry of Education, while the Quomi is privately operated and has its own curricula. In addition to religious subjects and Arabic, the Alia system has recently incorporated into its curricula such secular subjects as Bengali, English, general science, and math. For these subjects, the Alia madrassas use the textbooks of the National Curriculum and Textbook Board.

The madrassa system consists of five stages: Ebtedayee (primary), Dakhil (junior secondary and secondary), Alim (higher secondary), Fazil (undergraduate), and Kamil (graduate). The Bangladesh Madrasah Education Board is responsible for conducting all public examinations in the madrassa system. The Ministry of Education issued circulars equating the five madrassa levels with the corresponding levels in the government system, so it is possible for a student passing the Dakhil examination to be admitted into the HSC course at a college. Similarly, a student passing the Alim examination with science subjects can take an admissions test for an agricultural college, a medical college, or an institute of technology. The Fazil level is a 2-year program equivalent to a bachelor's degree (pass), and the Kamil level is a 2-year program equivalent to a master's degree.

Almost all of the madrassas have been established by local communities—only three are government-owned. The Alia madrassas are operated by management committees recognized by the Madrasah Education Board. The government provides these madrassas with salary subvention for the teachers and limited-scale development support. The more than 5,000 Quomi madrassas throughout the country, totaling 1.3 million students, are owned and operated by local communities, without any link with the national government. About 100,000 students per year pursue higher studies at the undergraduate and graduate levels of Quomi madrassas.[4] There are 19 Quomi madrassa boards—some of them independent and some belonging to federations, the largest of which is the Befaqul Madarisil Arabia Bangladesh. The current education policy proposes to mainstream all madrassas into the government system, including the Quomi madrassas.

[3] In Bangladesh, there are two clear types of engineering education programs: one is known as "diploma" engineering program, 4 years duration, offered by polytechnic institutes (entry requirement is SSC passed), and the other is known as engineering degree program, 4 years duration, offered by universities (entry requirement is HSC passed).

[4] Bangladesh Bureau of Educational Information and Statistics (BANBEIS). 2008. *Quomi Madrasa Education System*. Dhaka. However, these statistics should be viewed with some skepticism, as they were collected from only the Befaqul Madarisil Arabia Bangladesh; other boards reportedly did not supply information to BANBEIS.

G. Higher Education

Higher education institutions include universities; institutes of technology; agricultural training institutes; various colleges (arts, medicine, agriculture, textile, leather, teacher-training, etc.) affiliated with the National University; higher education madrassas offering Fazil and Kamil degrees; and professional institutes, such as the Institute of Chartered Accountants and the Institute of Cost and Management Accountants. For the purposes of this report, however, the term "higher education" refers to the public and private universities, including the colleges and institutes affiliated with the National University. In other words, this report concentrates on those institutions that have some form of reporting relationship with the University Grants Commission (UGC) of Bangladesh.

Higher education in Bangladesh is open to all who have completed 12 years of schooling (i.e., through the HSC or equivalent). Higher education programs include 2-year (madrassa), 3-year (pass), and 4-year (honors) bachelor's degrees, 1-year and 2-year master's degrees, 2-year MPhil degrees, and 3-year PhD degrees, as well as professional degrees and qualifications (e.g., chartered accountants or cost and management accountants). With the exception of the professional degree programs, all undergraduate and graduate programs are offered at both private and public universities, including the degree colleges affiliated with the National University, which accounts for all affiliated colleges and institutes. University and college programs in medicine differ in their duration, as do the programs at the engineering universities.

H. Management

Preprimary, primary, and nonformal education. The Ministry of Primary and Mass Education is responsible for policy formulation, planning, evaluation and execution of plans, and the implementation of legislative measures relating to primary and mass education, as well as nonformal education.[5] The Directorate of Primary Education (DPE) executes all policy decisions pertaining to formal primary education; it also controls, coordinates, and regulates the administration of the formal primary education system. DPE administration is carried out in the divisions by deputy directors, in the districts by district primary education officers, and in the *upazilas* (subdistricts) by upazila education officers. A number of assistant upazila education officers are each in charge of a cluster of primary schools. The DPE's subordinate offices in the districts and upazilas are solely responsible for the management and supervision of primary education. Within the schools, management committees perform certain well-defined functions, and parent–teacher associations play a supportive role. The responsibility for school construction and repair and for the supply of school furniture lies with the Bangladesh Education Engineering Department (formerly the Facilities Department), under the Ministry of Education (MOE), and with the local government engineering department.

[5] "Mass education" in Bangladesh refers to nonformal education for out-of-school children, youth, and adults in basic literacy, simple numeracy, and life skills.

The Compulsory Primary Education Implementation Monitoring Unit helps to keep track of the implementation of compulsory primary education, and carries out the biennial Child Education and Literacy Survey. Compulsory primary education committees have been established at the ward (village or urban neighborhood), union-council, *upazila*, and district levels to mobilize the public in favor of primary education. The monitoring unit also administers salary subventions to registered nongovernment primary schools and honorariums to teachers at community schools.

The National Academy for Primary Education, as the principal institution for training primary teachers, conducts or organizes training and research in the field of primary education, oversees the academic programs of the Primary Teacher Training Institutes, and gives the final examination for the certification offered by these institutes: the 1-year Certificate in Education (C-in-Ed).[6] There are 55 such institutes, with an annual intake capacity totalling around 10,000 students. Under the Third Primary Education Development Program (PEDP III), the government's 5-year program on primary education that began in 2011, the C-in-Ed was replaced by Diploma in Primary Education (Dip-in-Ed) in July 2012.

Nonformal education is organized and managed mainly by the Bureau of Non-Formal Education and by NGOs. Headed by a director general, the bureau executes the programs; controls and regulates field-level administration; and coordinates and monitors the implementation of nonformal education programs by the bureau's district-level offices and selected NGOs.

Junior secondary, secondary, and higher secondary education. The DSHE is the principal agency responsible for implementing government policies, programs, and projects concerning the three levels of secondary education (as well as higher education). It has under its control the junior secondary, secondary, and higher secondary schools; intermediate and degree colleges, and equivalent-level programs at Alia madrassas). Ebtedayee (primary) Alia madrassas are also under its administrative jurisdiction. The country has been divided into nine educational zones for the effective management of secondary and higher secondary education. Within these zones are 64 district education officers and an equal number of assistant district education officers, who monitor and supervise the schools. One of the directorate's most difficult tasks is the management of salary subsidy payments to nearly 250,000 teachers and employees at nongovernment secondary-level schools, college programs, and madrassas.

The Directorate of Inspection and Audit, under the MOE, performs financial audits of all secondary schools in the country. The National Academy for Educational Management is responsible for in-service training of senior administrators and teachers at the secondary and higher secondary levels. The Board of Intermediate and Secondary Education conducts the SSC and HSC exams; the Bangladesh Madrassa Education Board conducts the madrassa exams; and the BTEB conducts the technical certificate and degree examinations.

[6] The Ministry of Primary and Mass Education developed a curriculum for the Diploma in Primary Education (Dip-in-Ed), which replaced the C-in-Ed in July 2012; however, C-in-Ed would continue side by side.

Technical education and training. The Directorate of Technical Education is responsible for planning, developing, and managing technical and vocational education throughout the country. The BTEB has full academic control over the technical and vocational institutions, including the institutes of marine technology; the technical training centers run by the Bureau of Manpower, Employment and Training; and the agricultural training institutes affiliated with the BTEB.

Management across levels. The National Curriculum and Textbook Board is responsible for the development of curriculum and the production of textbooks for students at all levels of education.

The Bangladesh Bureau of Educational Information and Statistics (BANBEIS) is responsible for the collection, compilation, publication, and dissemination of education statistics pertaining to all levels. The Education Management Information System, under the MOE, is situated within BANBEIS.

APPENDIX 4
Statistical Tables Related to Higher Education in Bangladesh

Table A4.1: Enrollment in Public Universities, by Discipline and Gender, 2007–2009

Disciplines	2007	2008	2009
Arts Total	31,196	33,037	32,961
Female	9,124	9,808	10,075
% Female	29.25	29.69	30.57
Social Science Total	28,145	28,572	28,216
Female	8,094	8,136	8,372
% Female	28.76	28.48	29.67
Law Total	2,984	3,245	3,141
Female	825	877	904
% Female	27.65	27.03	28.78
Science Total	28,806	37,434	33,164
Female	5,775	9,649	10,281
% Female	20.05	25.78	31.00
Engineering and Technical Total	28,299	20,520	24,003
Female	6,215	3,170	3,951
% Female	21.96	15.45	16.46
Medical and Veterinary Total	1,911	3,134	3,927
Female	432	909	1,092
% Female	22.61	29.00	27.81
Agricultural Total	7,465	6,883	6,480
Female	2,264	2,292	2,384
% Female	30.33	33.30	36.79
Business Administration Total	21,222	20,848	4,498
Female	3,493	3,853	685
% Female	16.46	18.48	15.23

Notes
1. The figures in this table exclude students at Bangladesh Open University and the National University. For both of these institutions, data based on academic discipline were not available.
2. Private universities only started reporting enrollment data based on academic discipline to the University Grants Commission (UGC) in 2008, so discipline-based data for the private universities could not be provided for the entire period covered in this table.

Source: Annual Reports of UGC from 2007-2009.

Table A4.2: Numbers of Higher Secondary Education Graduates, by Discipline and Gender, 2001–2009

Year	Results	Science		Humanities		Business Studies		Total	
		Total	Female	Total	Female	Total	Female	Total	Female
2001	Attended	126,315	33,013	305,157	157,575	94,283	18,549	525,755	209,137
	Passed	41,389	12,387	72,440	40,747	35,654	9,019	149,483	62,153
	% Passed	32.77	37.52	23.74	25.86	37.82	48.62	28.43	29.72
2002	Attended	139,097	38,368	293,478	155,504	105,721	22,402	538,296	216,274
	Passed	41,201	12,742	66,169	37,113	38,497	10,212	145,867	60,067
	% Passed	29.62	33.21	22.55	23.87	36.41	45.59	27.10	27.77
2003	Attended	126,021	37,501	254,555	142,769	120,931	28,713	501,507	208,983
	Passed	48,730	15,661	84,003	47,961	59,980	16,090	192,713	79,712
	% Passed	38.67	41.76	33.00	33.59	49.60	56.04	38.43	38.14
2004	Attended	117,766	35,928	240,987	136,073	124,728	32,109	483,481	204,110
	Passed	60,510	19,448	97,921	55,714	72,361	20,293	230,792	95,455
	% Passed	51.38	54.13	40.63	40.94	58.02	63.20	47.74	46.77
2005	Attended	96,500	30,109	204,313	115,609	114,275	31,075	415,088	176,793
	Passed	64,602	21,082	105,843	59,526	75,104	21,648	245,549	102,256
	% Passed	66.95	70.02	51.80	51.49	65.72	69.66	59.16	57.84
2006	Attended	82,199	26,989	206,498	117,848	123,327	36,132	412,024	180,969
	Passed	55,892	19,045	115,353	67,443	92,113	28,461	263,358	114,949
	% Passed	68.00	70.57	55.86	57.23	74.69	78.77	63.92	63.52
2007	Attended	87,207	29,894	211,298	123,133	133,330	41,594	431,835	194,621
	Passed	59,450	21,092	118,631	69,890	99,442	32,456	277,523	123,438
	% Passed	68.17	70.56	56.14	56.76	74.58	78.03	64.27	63.42
2008	Attended	95,805	33,343	242,092	145,160	158,242	52,884	496,139	231,387
	Passed	72,873	25,938	167,186	101,314	131,323	45,138	371,382	172,390
	% Passed	76.06	77.79	69.06	69.79	82.99	85.35	74.85	74.50
2009	Attended	94,523	33,710	237,725	142,031	156,854	54,363	489,102	230,104
	Passed	66,815	24,581	152,771	91,341	124,899	44,688	344,485	160,610
	% Passed	70.69	72.92	64.26	64.31	79.63	82.20	70.43	69.80
Total	Attended	965,433	298,855	2,196,103	1,235,702	1,131,691	317,821	4,293,227	1,852,378
	Passed	...	...	...	...	...	...	2,221,152	971,030
	% Passing	...	...	...	...	...	...	51.74	52.42

... = data not available.

Source: Government of Bangladesh, Board of Intermediate and Secondary Education.

Table A4.3: Graduates by Academic Degrees in the Public Universities, 2001–2012

Year		Academic Degrees							Total
		Degree (Pass)	Degree (Honors)	Bachelor's (Tech)	Master's	Master's (Tech)	PhD/ MPhil/ MS	Certificate/ Diploma[a]	
2001	Number	84,029	28,540	4,094	36,727	622	372	11,799	166,183
	Percentage	50.56	17.17	2.46	22.10	0.37	0.22	7.10	100
2002	Number	84,617	29,968	4,442	40,984	613	485	13,256	174,365
	Percentage	48.53	17.19	2.55	23.50	0.35	0.28	7.60	100
2003	Number	49,228	40,869	4,649	35,652	935	607	15,999	147,939
	Percentage	33.28	27.63	3.14	24.10	0.63	0.41	10.81	100
2004	Number	58,442	49,569	8,857	44,662	175	1,213	23,457	186,375
	Percentage	31.36	26.60	4.75	23.96	0.094	0.65	12.59	100
2005	Number[b]	86,374[c]	52,990	6,192	49,299	205	1,736	87,990	284,786
	Percentage	30.33	18.61	2.17	17.31	0.07	0.61	30.90	100
2006	Number	22,142	22,154	9,489	67,422	1,166	1,204	39,635	163,119
	Percentage	13.57	13.58	5.82	41.33	0.71	0.74	24.30	100
2007	Number	23,031	23,226	6,389	65,327	1,397	1,434	38,008	158,915
	Percentage	14.49	14.62	4.02	41.10	0.88	0.90	23.92	100
2008	Number	50,330	57,509	6,898	32,967	1,514	824	2,460	150,988
	Percentage	33.33	38.09	4.57	21.83	1,003	0.55	1.63	100
2009	Number	64,185	60,786	8,508	55,668	1,392	2,862	2,348	195,745
	Percentage	32.79	31.05	4.35	28.44	0.71	1.46	1.2	100
2010	Number	73,091	79,258	8,573	61,243	1,856	1,134	66,940	292,095
	Percentage	25.02	27.13	2.93	20.97	0.64	0.39	22.92	100
2011	Number	90,016	87,365	8,661	85,979	1426	1,516	3,432	278,395
	Percentage	32.34	31.38	3.11	30.88	0.51	0.55	1.23	100
2012	Number	91,006	9,7045	11,842	103,394	1781	1,566	1,651	188,051
	Percentage	29.52	31.48	3.84	33.54	0.58	0.51	0.54	100

Notes:
1. In this table, each percentage is calculated based on the total number of students graduating in the relevant year.
2. The percentages may not necessarily add up to 100% due to rounding off.

[a] "Certificate" refers to such programs as the Secondary School Certificate and the Higher Secondary Certificate. Similarly, "Diploma" is a kind of certification after completing specified courses for a specified duration, for example, 2-year Diploma or 1-year Diploma, often considered as a pathway to enter into a Degree program. For example, Diploma Engineering course (4-year program after SSC).

[b] The figures in this row include all Bangladesh Open University (BOU) graduates in 2005, including those completing BOU's Secondary School Certificate and Higher Secondary Certificate programs, as data on tertiary graduates alone from BOU were not available, according to Fakhrul Islam, a leading compiler of data for the UGC's annual reports. Thus, this number does not represent the actual total of higher education graduates from public universities in 2005. Mr. Islam said that the figures for the other years do represent the total of tertiary education graduates, as BOU data excluded the graduates from its nontertiary programs.

[c] These figures for 2005 appear quite high compared with the other years, but there was no explanation for this wide variance in the University Grants Commission (UGC) *Annual Report - 2005*.

Source: University Grants Commission, Annual Reports, 2001-2012.

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This publication is part of a series of six country reports on technical and vocational education and training (TVET) and higher education in Bangladesh, Nepal, and Sri Lanka. Each report presents current arrangements and initiatives in the respective country's skills development strategies. These are complemented by critical analyses to determine key issues, challenges, and opportunities for innovative strategies toward global competitiveness, increased productivity, and inclusive growth. The emphasis is to make skills training more relevant, efficient, and responsive to emerging domestic and international labor markets. The reports were finalized in 2013 under the Australian AID-supported Phase 1 of Subproject 11 (Innovative Strategies for Accelerated Human Resource Development) of Regional Technical Assistance 6337 (Development Partnership Program for South Asia).

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