

25192 Vol.3  
2000

BANGLADESH

**EDUCATION  
SECTOR  
REVIEW**

Volume III

*Also from UPL*

*edited by*

*Qazi Kholiquzzaman Ahmad*

**QUALITY OF EDUCATION AND CAMPUS VIOLENCE**  
Case Studies of Dhaka and Rajshahi Universities

*edited by*

*A K Jalaluddin and A Mushtaque R Chowdhury*

**GETTING STARTED**  
Universalising Quality Primary Education  
in Bangladesh

*Kamal Siddiqui*

**TOWARDS GOOD GOVERNANCE  
IN BANGLADESH**  
Fifty Unpleasant Essays

*edited by*

*Kamal Siddiqui*

**LOCAL GOVERNMENT IN SOUTH ASIA**  
A Comparative Study

**LOCAL GOVERNMENT IN BANGLADESH**

*Kamal Siddiqui et al*

**OVERCOMING THE GOVERNANCE CRISIS IN  
DHAKA CITY**

*Rehman Sobhan*

**RETHINKING THE ROLE OF  
THE STATE IN DEVELOPMENT**  
Asian Perspectives

*edited by*

*Hasnat Abdul Hye*

**GOVERNANCE**  
South Asian Perspectives

*Quazi Azher Ali*

**DECENTRALISED ADMINISTRATION  
IN BANGLADESH**

*edited by*

*Abdul Bayes & Anu Muhammad*

**BANGLADESH AT 25**  
An Analytical Discourse on Development

*edited by*

*Willem van Schendel & Kirsten Westergaard*

**BANGLADESH IN THE 1990s**  
Selected Studies

*Mohammad Mahbubur Rahman*

**BUREAUCRATIC RESPONSE TO  
ADMINISTRATIVE DECENTRALISATION**  
A Study of Bangladesh Civil Service





**BANGLADESH  
EDUCATION SECTOR REVIEW**

**VOLUME III**



# BANGLADESH

## EDUCATION SECTOR REVIEW

Volume III



*Published for The World Bank*  
The University Press Limited

The University Press Limited  
Red Crescent Building  
114 Motijheel C/A.  
P.O Box 2611  
Dhaka 1000  
Bangladesh  
Fax : (88 02) 9565443  
E-mail:upl@bttb.net.bd  
Website: www.uplbooks.com

First published 2000

© The World Bank 2000

*All rights are reserved. No part of this publication may be reproduced or transmitted in any form or by any means without prior permission of the publisher. Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.*

*The judgments made in this report do not necessarily reflect the views of the World Bank's Board of Executive Directors or of the governments they represent.*

*Cover design by Ashraful Hasan Arif*

ISBN 984 05 1572 1

Published by Mohiuddin Ahmed, The University Press Limited, Red Crescent Building, 114 Motijheel C/A., Dhaka 1000. The text has been set in Palatino by Shishir Bose of Mark Printing & Packaging, 618/1 North Shajahanpur, Dhaka 1217. Printed at The Laminators, Gandaria, Dhaka.

## Contents

<b>Part One</b>	
<b>BANGLADESH</b>	
<b>TECHNICAL VOCATIONAL EDUCATION AND TRAINING</b>	<b>1</b>
<b>EXECUTIVE SUMMARY</b>	<b>3</b>
<b>TECHNICAL VOCATIONAL EDUCATION AND TRAINING</b>	<b>5</b>
A. Dimensions and Distinguishing Characteristics	5
B. Status of Knowledge of the Sub-Sector	6
C. Recent Developments (1995–1998)	7
D. Evaluation of the System of TVET	7
E. Government Plans and Policies	11
F. Priority Issues	12
G. Strategy and Policy Options	13
H. Financial Implications of Reforms (Possible Investments)	18
I. Studies Needed	18
<b>ANNEX</b>	<b>20</b>
A. Technical Education Board (TEB)	20
B. Directorate of Technical Education (DTE)	22
C. Polytechnics	26
D. Vocational Training Institutes (VTIs)	29
E. Ministry of Labor and Manpower	30
F. Technical Training Centres (TTCs)	31
G. Ministry of Youth and Sports	32
H. Ministry of Agriculture	34
I. Other Ministries and Non-Government Providers Involved in TVET	34
J. Underprivileged Children’s Education Program (UCEP)	35
K. Technical Vocational Education and Training (TVET)—Plans and Policies	38
L. Previous External Assistance, Analyses and Recommendations on TVET	42
M. Asian Development Bank Views about Vocational Training, 1995	46
<b>REFERENCES</b>	<b>51</b>
<b>LIST OF TABLES</b>	
1.1: Dimensions of TVET, 1997	5
1.2: Comparison of Public and UCEP-Administered Vocational Training	8
1.3: Towards Development of a Long Term Strategy for TVET	15
A-1 : BTEB Approved Courses and Institutions	21
A-2 : Training Programs under the DTE	23

A-3 : Current Projects under DTE	24
A-4 : Planned Projects by DTE	25
A-5 : Planned Increased in TVET Student Intake Capacity	25
A-6 : Training Programs of the Ministry of Youth and Sports	32
A-7 : Agriculture Education and Training Institutions	34
A-8 : Comparison of Success Rates: UCEP and Public Training Institutions	37
A-9 : Planned Institutions and Enrollments	39
<b>LIST OF CHART</b>	
Chart 1.1: Organogram of the Directorate of Technical Education	23

## Part Two

### BANGLADESH HIGHER EDUCATION

53

#### EXECUTIVE SUMMARY

55

#### HIGHER EDUCATION

A. Dimensions and Characteristics	59
B. Status of Knowledge of the Sub-sector	62
C. Strengths	62
D. Weaknesses	63
E. Effectiveness and Quality	65
F. Costs and Internal Efficiency	69
G. Government Plans and Policies	71
H. Development of a Long Term Strategic Framework	73
I. The Vision for 2020: Outward Linkages and Greater Resource Mobilization	74

#### ANNEX

82

A. Statistical Profile of Universities (Percent of Examination Takers)	82
B. University Grants Commission (UGC)	86
C. Degree Colleges and the National University	89
D. Bangladesh Open University	93
E. Private Higher Education	95
F. Bangladesh Institutes of Technology (BITs)	98
G. Campus Violence	99
H. Higher Education Plans and Policies	101
I. External Analysis of Higher Education	104

#### REFERENCES

109

#### LIST OF TABLES

2.1: Universities: Institutions, Students and Teachers, 1997	59
2.2: Enrollment by Field of Study in Public Universities, 1997	60
2.3: Number of Degree Colleges and Enrollments	61
2.4: Dimensions of Degree Colleges by Location	67
2.5: Strategic Objectives and Means for Higher Education	78

A-1a: Public Universities in Bangladesh, 1997	82
A-1b: Public Universities in Bangladesh, 1997 (Continued)	82
A-2 : Rate of Increase and Decrease of University Students, 1987-97	83
A-3 : Enrollments by Institutions, 1994-97	83
A-4 : Enrollment by Public University and Field of Specialization, 1997	84
A-5 : Students per Teacher, 1994-97	84
A-6 : Recurrent Cost per Student	85
A-7 : Success Rates Among Applicants for Degrees, 1992-96	85
A-8 : UGC Organization and Functions	86
A-9 : Degree Colleges by Highest Degree Awarded	90
A-10: Private Universities (June 1997)	95

**LIST OF BOX**

Box 2.1: North South University	97
---------------------------------	----

**LIST OF CHART**

Chart 2.1: Organogram of the University Grants Commission	88
---	----



**Part One**

**BANGLADESH  
TECHNICAL VOCATIONAL EDUCATION AND TRAINING**

**Richard Johanson**



## EXECUTIVE SUMMARY

**The Vision for 2020.** The key aim by 2020 is to establish much closer linkages between skill training and job markets. By 2020, Bangladesh will have a much greater diversity of provision and targets of skill training. The impact of TVET on poverty alleviation will have been increased through greatly expanded public financing of TVET for disadvantaged groups, much of it for income generation in the informal sector. Major reforms will also have been achieved in the delivery of TVET. For the most part, publicly financed TVET will be delivered through cost sharing arrangements with non-governmental institutions and employers. Local management will have replaced central management of the remaining publicly delivered TVET through decentralized authority to managers of public training institutions. Instead of providing training, the central government will concentrate on the functions and activities not easily done by non-governmental providers, namely development of information systems, policies, standards, curricula, teaching materials, and instructor training. Nonpublic resources would be mobilized through partial cost recovery from beneficiaries; through use of facilities for income-generating production; and by establishment of financial partnerships with enterprises.

The current system of TVET has several advantages it can build on to attain this vision. First, the system is small, absorbing only about 2 percent of the education budget and enrolling only about 30 thousand students at the certificate and diploma levels combined. This makes for easier structural changes. There are several good quality public training institutions, including some TTCs under the Ministry of Labor, and Rural Training Centers under the Ministry of Youth. Several TTCs and VTIs have become more flexible in their non-regular programs offering short-term training on a cost-recovery basis. Good models exist for skill training by some non-governmental institutions. The Technical Education Board is a small, self-supporting, and relatively effective organization for curricula, teaching materials and trade tests.

Four overlapping issues stand out as the most important problems in TVET.

- **Lack of linkages to the job market.** The main problem with formal and nonformal TVET is lack of linkages to employers and the job market. Employers complain that training programs do not produce the skills they require. No incentives are given to managers or instructors to consult with employers. Moreover, the rigid, centralized training system limits the possibilities of capitalizing on local responsibilities and initiatives.
- **Lack of impact on poverty reduction.** The second issue is lack of diversification in training clientele. TVET is almost exclusively geared to in-school male youth in grades 9—10 as part of SSC Vocational. Underprivileged youth outside the school system, especially girls, do not have access through the TVET system for the skills they need to help them raise incomes in the informal sector.
- **Ineffectiveness of training support and delivery.** In contrast with the relatively weak performance of the government financed and operated institutions, the nongovernmental sector has demonstrated—albeit on a very small scale—the capability to develop local needs-based curriculum customized to the experiences of trainees, and has achieved strong employment rates for graduates. On the other hand,

government support needs to be strengthened for key functions of policy development, information and evaluation, standards development, and the development of teaching materials and trainers.

- **Underfinancing.** TVET is expensive, but costs the beneficiaries—students and enterprises—virtually nothing. The government shoulders practically all the costs, including providing trainees with stipends and subsidizing their accommodations. At the same time, equipment and consumable supplies are chronically underfinanced in most public institutions. The training establishment looks to the central government to solve this problem, but the government lacks the funds. External financing is seen by some as an alternative, but a one-shot injection would not be sustainable.

Over the medium to long term the best hope for a vibrant system of skill training is to turn it over to the private sector. This means (a) establishment of an employer controlled independent training authority, and (2) non-government delivery of publicly-financed skill training for underprivileged youth. In the interim, Bangladesh should decentralize authority to managers of public training institutions, greatly expand public financing of TVET for disadvantaged groups, and deliver that expanded training through non-governmental institutions. More specifically:

- Closer links should be forged with formal and informal job markets. Policy recommendations include: (a) creating an independent training authority owned, managed and financed for the most part by enterprise associations; (b) in the interim decentralizing authority to managers of public TVET institutions together with performance incentives and accountability; (b) requiring public institutions to become self-sufficient and to find their own training markets, in part through local job analysis surveys; and (c) where appropriate, privatizing public vocational training institutions.
- TVET should broaden its impact through diversification of clientele and programs. Policy recommendations include: (a) reconsidering the current policy emphasis on the SSC (Vocational) program in favor of post-school modular training for older youth; (b) redirecting training priorities toward underprivileged groups, including training in income-generation skills and self-employment; and (c) diversifying technical education, including upgrading for employed technicians and introduction of post-diploma entrepreneurship training.
- TVET should shift funds toward more effective non-governmental modes of delivery and to strengthen the supporting role of the public sector (as opposed to direct provision). The report recommends that public funds should be used to build non-public TVET. This requires measures to expand publicly-financed training provided through non-governmental institutions, and policies to encourage the development of quality private TVET. The public sector, in turn, should concentrate on the support functions that non-governmental institutions and the private sector cannot easily do.
- Finally, TVET should mobilize resources in a sustainable way to overcome chronic underfinancing. This could be done by (a) introducing beneficiary financing together with means-based scholarships for needy students; (b) using TVET facilities for commercial contracts and production; and (c) establishing partnerships with enterprises.

## A. DIMENSIONS AND DISTINGUISHING CHARACTERISTICS

1. TVET is provided by formal, non formal and informal means. Each is reviewed below.
2. **Formal technical education and vocational training.** Formal TVET<sup>1</sup> is provided within the school system at the certificate level (Grade 8 + 2 years), diploma level (SSC + 3 years), and degree level (HSC + 3-4 years). The following table presents the dimensions of the system:

**Table 1.1: Dimensions of TVET, 1997**

	Responsible agency or Ministry	No. of Institutions	No. of Students	Percent Female Students	Student- Teacher Ratio
<b>1. Degree Level<sup>2</sup></b>					
Textile and Leather Inst.	Education	2	0.8	6	15:1
<b>2. Diploma level</b>					
Polytechnics	Education	20	17.0	7	17:1
Monotechnics	Education	3	0.9	6	11:1
Agriculture Training Inst.	Agriculture	12	7.0	n.a.	n.a.
<b>3. Certificate</b>					
VTIs	Education	51	5.8	17	11:1
TTCs	Labor and Manpower	12	5.1	3	11:1
Commercial Inst.	Education	16	4.2	17	39:1
<b>4. Teacher Training</b>					
TITC and VTTI	Manpower and education, respectively	2	0.1	22	3:1
<i>Source: BANBEIS November 1998, UGC 1996. Note no statistics are collected on vocational training provided by NGOs and in proprietary training institutions.</i>					

3. The Ministry of Education (MOE) establishes curricula, standards, and examinations for vocational and technical education through the Technical Education Board (TEB, Annex A). The Directorate of Technical Education (DTE) is responsible for planning, development coordination and supervision of TVET under the MOE (Annex B through D). The Ministry of Labor and Manpower (MOLM) provides skill training through its technical training centers (Annex E and F). Altogether, the output of the formal system for skills has increased from about 5,000 to 10,000 per annum. TVET absorbs about 2 percent of the MOE budget, and less than 10 percent of the much smaller MOLM budget. Attempts to shorten courses, merge TVET under a single ministry, and establish a high level national body on skill development failed in the 1980s.<sup>3</sup>

- 1 TVET programs are diverse in terms of levels and subjects of skills taught and varying lengths of training. It is difficult to make accurate generalizations about such a heterogeneous field.
- 2 Excluding the BUET and three science and technology universities.
- 3 Short, modular courses were resisted by students who wanted mostly certificates that would enable them to engage in further studies. Teaching staff of VTIs resisted adopting the full-year training program of the Ministry of Labor and Manpower. The national skill development agency failed because of the difficulty of convening a group of such high level representatives, lack of representation of employers, and lack of a properly staffed and funded secretariat.

4. **Non formal skill training** is the delivery of organized courses outside the regular school system. In addition to programs of the MOLM, non formal training is provided by the Ministries of Youth and Sports (see Annex G) and Women's Welfare. The Ministry of Youth has 21 rural training centers for imparting skills to people under age 30 for self-employment and income generation in livestock, pisciculture, and poultry farming. Several non-government institutions, such as UCEP and MAWTS, also provide non formal skill training. UCEP delivers highly effective training for 1,500 trainees (disadvantaged working children) in three cities (see Annex J). Caritas provides short term vocational training through mobile means. The World Bank estimated that about 30 Non-government institutions were involved in providing school-based occupational skill training in the early 1990s, but that total enrollments were only about 2,000 students.<sup>4</sup> Reportedly, large numbers of people are given some income-generation skills in conjunction with the provision of micro-credit through organizations such as Grameen Bank and BRAC. The Department of Technical Education of the Ministry of Education recognizes about 160 nonprofit vocational schools and makes a token contribution (averaging about Tk. 7,000) for their operation. The schools are small, averaging only 25 trainees each (total capacity is 3,600). Courses typically last from four to six months and the most popular trades reportedly were tailoring/sewing, embroidery, and bamboo/cane works for women, and electrical, welding, radio/tv, refrigeration, and carpentry for men.

5. A large number of private trade schools also exists with the aim of creating profits. In the early 1990s it was estimated that over 200 such trade schools existed; no estimates have been made of the capacity of the institutions. The growth of private trade schools is primarily connected to large scale export of skilled and semiskilled manpower, primarily to the Middle East. These institutions offer non formal and non-standard training of short duration. In general they do not have highly qualified facilities or instructors. They are not required to register or be recognized by any training agency.<sup>5</sup>

6. **Informal training** is ad hoc training that is usually given in the workplace. The vast majority of people who have acquired occupational skills—such as welding, turning, carpentry, and bicycle and small engine repair—have acquired them through informal apprenticeship or other on-the-job training. The traditional apprenticeship, or the informal guild system, is responsible for teaching most of the skills imparted in the country. This system comprises a master craftsman teaching employees, usually in exchange for free labor or sharply reduced compensation. Examples include welding, turning, furniture making, and bicycle rickshaw manufacturing and repair. The system has much to recommend it: the teaching is effective in imparting skills, costs the government nothing, and integrates otherwise unemployed youth into jobs in the informal sector. However, it also has problems. The master is only able to teach the skills he possesses, which limits the scope of skills imparted. Apprenticeship takes a long time and the master—apprentice relationship is often exploitative.

## **B. STATUS OF KNOWLEDGE OF THE SUB-SECTOR**

7. Vocational training issues are relatively well understood, although somewhat dated. Technical and vocational training was covered by a sub-sector survey by the World Bank in 1989/90, several studies by the ILO in 1995, and a review by Utah State University, financed by the ADB in 1995. These studies focused on skill training for industrial enterprises. Relatively less has been written on technical education (e.g., polytechnics) at the diploma level and engineering education at the degree level. Non formal skill training constitutes an important gap in knowledge about the sub-sector.

---

<sup>4</sup> World Bank, *Bangladesh: Vocational and Technical Education Review*, 1990, p. xii.

<sup>5</sup> ADB report, *Vocational Training for the People's Republic of Bangladesh*, September 25, 1995, pp. 77-82

### C. RECENT DEVELOPMENTS (1995 —1998)

8. The main developments that have occurred in certificate-level vocational training are the introduction of: (1) the SSC (vocational) stream in the TTCs and VTIs and as an option in secondary schools; (2) short courses on basic trades in the TTCs/VTIs; and (3) tailor-made short courses on a cost-recovery basis in the afternoons and evenings. The SSC has also been introduced as an optional stream in 250 general secondary schools. The secondary school students in this program use VTI/TTC workshop capacity for their practical work. This saves investments by avoiding the establishment of costly workshops in the general secondary schools. As part of the introduction of SSC, the training programs of the TTCs and VTIs were integrated and they now offer virtually the same formal programs. These changes markedly increased the popular demand for training within vocational training institutions, increased enrollments, and considerably improved use factors of the facilities. The previous sector reports on TVET (by the World Bank and the ADB), made special note of the low-use factors in existing training facilities (less than 50 percent on average). Most institutions have now achieved an 80 percent capacity utilization rate, and some institutions have started to operate on a double shift. Systematic data are not available on completion rates (the proportion of entering students who complete final examinations successfully), but interviews and anecdotal evidence suggest they have improved over the previous low rates of 40 to 50 percent for VTIs and 60 percent for TTCs to about two-thirds to three-fourths of incoming students. Employment rates may also have increased somewhat, owing to growth in overseas employment, which reached 231,000 in 1997 and increases in export-oriented manufacturing. What has not happened is a reduction in the length of training programs, establishment of better linkages with employers, or delegation of authority to training institutions to manage their own affairs.

### D. EVALUATION OF THE SYSTEM OF TVET

#### 9. *Strengths*

- Entrance is reasonably competitive at all levels of formal skill training. Well-developed exit standards exist, i.e., skill testing and certification is well developed and managed.
- The Technical Education Board (TEB) is small, self-supporting and a relatively effective organization for developing curricula and trade tests.
- Good models exist for skill training by non-government institutions (including UCEP and MAWTS). There are also good models of industry involvement in providing child labor not only with basic education, but also with vocational training through non-government institutions, including both UCEP and a similar but cheaper model, Suravi.<sup>6</sup>
- TTCs and VTIs have become more flexible in their non-regular programs by offering short term training programs on a cost-recovery basis in the afternoon and evenings to those who have completed their formal schooling.
- Several comparatively good quality public training institutions exist, including some of the TTCs under the Ministry of Labor and Manpower, the Surveyor's Training Institute under the Ministry of Education and some of the rural training centers of the Ministry of Youth.

Table 1.2 compares the attributes of NGO vocational training under UCEP with public vocational training.

---

6 The Bangladesh Garment Manufacturers Export Association (BGMEA) has cooperated with UNICEF and the ILO in establishing a "Garment Workers' Education Program." This program pays half the costs associated with providing former child laborers in the garment industry with basic education as well as (for those who qualify) vocational training.

Table 1.2: Comparison of Public and UCEP-administered Vocational Training<sup>7</sup>

Criterion	VTI/TTC	UCEP
• Labor-market information	Surveys rarely done	Surveys of labor market done regularly by separate cell
• Linkages with industry	Few, but some employer involvement in curriculum development and through internships	Intensive, including Industrial Advisory Committee, sectoral committees and frequent contacts with employers through mandatory shop-floor assignments, organized by separate UCEP office
• Entrance requirements	Class VIII of formal education	Class 7 or 8 equivalent of non formal education
• Aspiration of students	Majority wants to go on to further education	Virtually all want to enter blue collar occupations
• Length of training program	2 years	1 — 2 years
• Length of supervised industry practice	3 months, but only done sporadically	3-12 months, done systematically
• Number of hours per day	5-6 hours	3.5 hours
• Number of days per year	<192	270
• Average attendance rate	60-70 percent (?)	90 percent
• Average students per teacher	12	18
• Average working hours per week of instructors	35	>50
• Degree of supervision of students and instructors	Loose supervision; frequent instructor absences reported for some institutions	Intense supervision of students by instructors and of instructors by management
• Percent practical work of total hours	60	80
• Assessment of student work	Assessment at end of each year and end of the cycle	Continuous assessment
• Instruction and teaching	Theory, demonstration; preparation to pass terminal examination; occasional use of job sheets, especially in TTCs	Focus on practical competencies, and attitudes to work; highly structured daily lesson plans and job sheets
• Student stipends and boarding	Tk. 100/month	None
• Commercial work contracts for supplemental income and practice	Not permitted	Yes, e.g., auto repair, armature rewinding
• Operating cost/student	Tk. 16,000 — 30,000/p.a.	Tk. 12,000/p.a.
• Average internal success rate <sup>8</sup>	<50 percent	95 percent
• Focus on exit examination	Strong emphasis on credentials, SSC (Voc)	Basic Skills Test I & II
• Average employment rate	40 percent	95 percent
• Use of tracer studies	None	Information kept on all graduates, including type of employment, salaries and career progression

Source: Staff estimates

### Weaknesses

10. The overall impact of the formal TVET system within Bangladesh is minimal. The output of technical/vocational education at the certificate level amounts to only 1.8 percent of the graduates at SSC level, and the output of diploma technicians is only 1.4 percent of the output of HSC holders. Moreover, formal training is miniscule<sup>9</sup> in relation to the informal ways the people actually become skilled. The outputs

<sup>7</sup> Main programs, excluding short-term training, e.g., afternoon and evening programs

<sup>8</sup> Proportion of students who complete the final year of studies and pass the final examination. (In the case of TTCs/VTIs, 80 percent completion x 60 percent pass rate = <50 percent).

<sup>9</sup> As stated in Volume I of this review, according to the 1995 Labor Force Survey, only 0.4 percent of those in the labor force had received any vocational/technical/commercial training.

of the formal system account for only a minute fraction of the occupational skills acquired each year. Moreover, relatively few of the graduates of formal VTIs enter local employment, at least in trades. TVET has a poor record in terms of placement of graduates in employment, including only about 60 to 65 percent for TTCs and about 40 percent for VTIs. Unemployment is also common among graduates of polytechnics. Those who do get jobs are often employed overseas as unskilled labor in jobs that do not require their specific training.<sup>10</sup> Those who do not find jobs often seek further studies at higher levels if they are eligible.<sup>11</sup> The public system is not complemented by a widespread or vigorous system of non-government vocational training (non-government institutions and proprietary institutions).

### *External Efficiency*

11. The main problem is lack of sufficient linkages with employers and the labor market.<sup>12 13</sup> Employers typically do not participate in determining content of training programs.<sup>14</sup> Courses tend to be offered in response to social demands, not based on labor market surveys and analysis. Labor market information is not collected systematically.

- Employers complain that the government is unable to change curricula quickly (i.e., introduce new courses, expand those in demand and reduce or close those for which demand has slackened) to keep up with technological changes in enterprises (TEB, for example, updates curricula once every five years). Polytechnics, in particular, were slow to integrate computers and instrumentation as integral parts of training in all fields.
- The clientele of formal vocational training (VTIs and TTCs) tends to be inappropriate. Those with grade VIII qualifications often aspire to further education and white-collar occupations; many have little or no intention of entering the job market and practicing the trade skills acquired.
- Training institutions lack linkages with the local labor market surrounding the institution. This is caused by excessive centralization and rigidity in the system. The heads of training institutions must follow uniform training programs and cannot alter curricula to meet local circumstances. Financial controls are also inflexible and institutional managers cannot give incentives and rewards for good teacher performance. In short, there is a lack of delegation of authority to the heads of training centers.<sup>15</sup>

10 The VTI east of Dhaka claimed that 40 percent of its graduates were employed overseas.

11 The scope for access to higher education, however, is limited. Only about 10 percent of certificate holders go on to studies at the polytechnics; only 5 percent of the diploma holders from polytechnics are eligible for admission to degree programs at the BITs.

12 According to the 1990 World Bank review, "The main problem seems to be a lack of clear labor market connections. TTC/VTIs cannot be made into good investments unless more of the graduates find employment in the fields in which they were trained." *Bangladesh Vocational and Technical Education Review*, Washington, The World Bank, July 1990, p. 44

13 Staff of the Ministry of Education admit that the linkages are weak, but point out that some linkages do exist, namely in the industrial attachments of two months that certificate and diploma students are supposed to take at the end of their studies, and in the consultations with some employers during the preparation of curricula approximately every five years.

14 Employers have not shown much interest in responding to previous invitations from the Ministry of Education for collaboration on vocational programs. The DTE has had difficulty in organizing industrial attachments for students. Enterprises typically are unwilling to pay for the costs of such attachments. Even successful programs in the NGO sector, such as UCEP, find it difficult to involve employers. Most traditional employers have little interest in training, preferring to give on-the-job training as necessary. Disinterest is particularly acute in loss-making state-owned enterprises. However, there is a growing appreciation for skills in competitive, export-oriented manufacturing.

15 According to the review by the ADB team in 1995, "The current public vocational training system... suffers from rigidity and inflexibility.... The present training system can be regarded as a rigid type of skill training, where it is difficult to change instructor posts, vary course lengths, and provide new equipment and training materials for other types of training programs." Final Report, September 25, 1995, Utah State University for the ADB, TA No. 2130-BAN, pp. 127, 132.

- Training institutions do not carry out occupational analyses of the skills in demand in the local area.
- Training is rarely provided for upgrading those already employed in occupations, including skills in the non formal sector.
- Few girls are being provided the opportunity to learn skills needed for formal sector employment; reasons include lack of hostels and secure transport, as well as traditionally low demand by employers for female workers.
- Women in the labor market have few places where they can receive training for raising their incomes through productive activities.
- Underprivileged youth tend to be screened out of the education system before qualifying for entry into vocational training.
- Stipends in technical and vocational education are provided on the basis of merit rather than need.

### *Effectiveness*

12. Low quality is reflected in relatively low pass rates for many vocational and technical training institutions. About one-third of those who finish technical—vocational courses fail to pass the final examinations. Several factors account for the poor results. The managers and instructors of training institutions lack incentives for good quality teaching. Overcentralized control means school directors take few initiatives. Instructors lack accountability, as evidenced by poor attendance rates.<sup>16</sup> Most instructors have not had industrial experience in the skills they are paid to teach. Funds are lacking for in-service training of teachers or industrial attachments. There are few promotion possibilities to provide incentives to staff. Many instructors have occupied the same positions for decades without any opportunities for updating or enrichment. Dead wood tends to accumulate among teaching staff with few, if any, opportunities for recycling. In theory, 60 percent of the time is devoted to the acquisition of practical skills, but in practice it is much less. Most VTIs, polytechnics, and specialized degree programs suffer from outdated, obsolete, and worn out equipment. No budgets are provided for maintenance of equipment, and little for consumable supplies. The share of total revenue spending allocated to TVET declined by about 17 percent, from 2.4 percent in 1990/91 to 2.0 percent in 1996/97.<sup>17</sup> It declined further to 1.5 percent in 1997/98. Capital investment in TVET virtually dried up in the 1990s.<sup>18</sup> Within the institutions students receive group, rather than individual, training. Lesson plans and job sheets are rarely used in the training. Institutions, consequently, cannot properly impart the intended practical training. At the diploma level, intended internships for students at the end of their studies are often not implemented. As a result, polytechnic graduates have not acquired practical shop floor skills. The outcomes are that most graduates of vocational and technical programs are not skilled, and few go into appropriate occupations.

### *Internal Efficiency*

13. Training is virtually free and heavily subsidized.<sup>19</sup> Most students receive stipends and many receive subsidized hostel accommodation which adds to the cost per student of training.<sup>20</sup> Substantial resources are

16 This observation is disputed by the Ministry of Education, which claims that the attendance rate is not less than 80 percent. Others have observed that instructors typically show up for class, but may leave the institution during working hours, leaving classes without instructors.

17 Ministry of Education only, excluding Ministry of Labor and Manpower.

18 Government development expenditure on technical and vocational education fell from 15 percent of the total in 1988/89, to 12 percent in 1990/91, 5 percent the following year, and just 1 percent in the three consecutive years starting in 1993/94. It rebounded to 4 percent of the total in 1996/97.

19 In 1996 the DGTE proposed a fee of Tk. 1,500/semester per student for consumable supplies, similar to the accepted laboratory fee in secondary schools. The Ministry has not yet acted on the proposal. Because DTE is a government organization it is difficult for institutions under DTE to generate and keep funds from students and enterprises.

20 Reportedly, parents do not have to pay for private tuition outside class hours for TVET students, a major expense in the general system at secondary and degree level.

wasted in technical and vocational training at present, even though the system is underfunded. Student—teacher ratios are only about 10 to 12:1. Training courses focus on certification and last longer than strictly necessary for occupational purposes. Overcentralized administration makes it difficult for institute directors to economize on resources. However, recent introduction of the SSC and basic trades programs for students in TTCs/VTIs has led to increases in the internal efficiency of institutions. Underutilization of physical capacity is no longer a problem, and completion rates are better than they were early in the 1990s.<sup>21</sup> Still, the operating costs of vocational training are high, probably in the order of \$300/student per year (24 times the cost of a student in primary education).

#### E. GOVERNMENT PLANS AND POLICIES

14. No national policy exists on the long term development of occupational training, but two recent documents, the Fifth Five Year Plan and the proposed National Education Policy, point to directions of intended changes. The Fifth Plan calls for enrollments in technical and vocational education to be increased from 3 percent at present to about 20 percent of the total at secondary level. Accordingly, the plan emphasizes expansion of the number and capacity of training institutions in line with emerging technologies. Specifically, the government plans to build dozens of new polytechnic institutes, VTIs, and TTCs. In addition, it intends to establish other textile and leather degree colleges, a technical teachers college, and a vocational teacher training institute. By 2002, enrollments are projected to increase from 4,500 students in polytechnic institutes to 20,000; from 2,600 in other technical and vocational institutes to 44,000; and from 12,800 in basic trade training to 30,000. The Fifth Plan also calls for diversification of course offerings in line with emerging technologies. Private involvement is to be encouraged in the delivery of technical and vocational education. In addition, the Plan proposes creation of an adequate base for labor market analysis and research on TVET, strengthening staff development programs, and forging closer links between training institutions and local economies.

15. The draft National Education Policy, which was prepared without consideration of fiscal constraints on the recommendations, calls for "the major portion of the education budget to be shifted towards TVET" (see Annex K). Under the policy, all secondary schools would have vocational streams; NFE would be provided for all school dropouts at existing training institutions after hours, and short courses would be introduced for those—particularly technicians—in the job market. The structure of diploma training would be extended by six months and the internship by three months. A credit system of student accounting would be introduced to facilitate progression of graduates to the next higher level. Individuals and private enterprises would be expected to share the costs of training, although it is not explained how this would be accomplished. In service training for teachers would be provided systematically. Finally, an overall industrial advisory council would be established to coordinate service offerings among the many government and non-government providers.

16. The Fifth Plan and the proposed National Education Policy touch on many of the critical issues in TVET. Positive features include explicit reference to the need for enterprise linkages at the central and institution levels; emphasis on training provision for new clientele, including upgrading and out-of-school youth; diversification of programs, including training in entrepreneurship; and encouragement of private involvement and beneficiary financing by students and employers. These are important priorities. The next step is to plan to accomplish them.

17. The main weaknesses of the plan and policy are their emphasis on expansion and greater public financing of TVET. Without needed reforms, plans for across-the-board expansion risk imposing existing rigidities on even larger numbers of trainees. Such expansion would dilute the capacity of the public sector

21 However, as observed by the World Bank review in 1990, "No increase in the internal efficiency (of vocational institutions) would be sufficient to improve the systems to a point where they would be considered good economic investments.... The efficiency of any VTE system *must* be measured by the ability of employers to absorb and utilize the graduates of the system." World Bank, 1990, p. 59.

to service adequately the existing institutions and may exacerbate unemployment among the graduates. Apparently no demand studies were done as a basis for selecting the new fields of study. Where needed, expansion could be accomplished at lower cost by expanding existing institutions (e.g., the textile and leather institutes) rather than creating separate new facilities. This underscores the impression that expansion is being sought for political rather than economic reasons. As stated in the 1995 ADB review, "It is possible to conclude that the present intake and training programs are more admissions-oriented than based on real industrial demand."<sup>22</sup>

## F. PRIORITY ISSUES

18. Among all the problems in the system of TVET, four overlapping issues stand out as the most important. They are discussed in sequence below:

19. **Lack of linkages with the job market.** The TVET system tends to be disconnected from the job market, both formal and informal employment. Employers do not participate in setting training policies. Public training institutions do not have mechanisms for consultation with employers, and no incentives are given to managers or instructors to establish them.<sup>23</sup> Moreover, the centralized system of training—in which curricula, staff, and resources are all controlled from Dhaka—also limits the possibilities of capitalizing on local responsibilities and initiatives. When there are not enough jobs for graduates, programs should be geared more to gainful work in the informal sector, e. g., livelihood skills, entrepreneurship, and self-employment. In sum, a key objective for TVET should be to forge closer links with formal and informal job markets.

20. **Lack of impact on poverty reduction.** This is a question of the clientele of the system. TVET is almost exclusively geared to in-school male youth in grades IX to X as part of SSC Vocational. The effectiveness of this approach should be evaluated. Similar programs have not proved cost-effective in other countries. Many of the graduates of SSC Vocational have no intention of entering the occupations for which they have been trained. Technical education is also narrowly focused on in-school clientele, whereas surveys show that only one-third of practicing technicians have ever received formal education in the field. This calls for more inservice and upgrading training for those in the workforce. TVET needs to diversify its clientele. Vocational training, in particular, has the potential to make a greater impact on poverty reduction by helping trainees become self-employed or generate income. Another main objective for TVET should be to broaden its impact through diversification of clientele and programs.

21. **Ineffectiveness of training support and delivery.** One of the main constraints on solution of problems in TVET is the prevailing view that the government must finance and provide training through a centralized system of control rather than seek an efficient division of responsibilities with the private sector. In contrast with the relatively weak performance of the government financed and operated institutions, the non-governmental sector has demonstrated—albeit on a very small scale—the capability to develop local needs-based curriculum customized to the experiences of trainees. Above all, several non-governmental institutions have established effective links with employers and have achieved impressive employment rates for their graduates. One of the challenges will be to find ways to expand the service delivery of effective non-governmental institutions in vocational and technical education. On the other hand, the government provides key support on which non-governmental institutions must rely. This support includes such things as development of favorable policy environments, training of instructors, development of teaching materials, and research/information on the employment market. A key objective for TVET is to shift funds towards more effective modes of delivery and strengthen the supporting role of the public sector (as opposed to direct provision).

<sup>22</sup> ADB, 1995, p. 110.

<sup>23</sup> The one exception is arrangement for enterprise-based work experience at the conclusion of training, which is observed more in the breach than as a matter of routine.

22. **Underfinancing.** TVET is expensive. It requires more instructors per student than general education because of the requirements for practice in workshops. It requires money for equipment, in-service training, and consumable supplies. Most of these necessary inputs are lacking or insufficient in public institutions at present. Most institutions look to the central government to solve this problem, but it does not have the funds. External financing is seen by some as an alternative solution. However, external financing would be unsustainable. In several years, the problems of underfinancing of equipment and supplies would reemerge and the problem would not have been solved. An important objective for TVET, therefore, is to mobilize non-public resources in a sustainable way to overcome chronic problems of underfinancing.

## G. STRATEGY AND POLICY OPTIONS

23. **Towards a Long Term Strategic Framework.** It is critically important to develop a long term strategy for technical and vocational training. First, the strategy should be based on the views of employers and likely developments in the industrial sector. The development of the strategic framework should aim to: (1) establish communication between employers and the training establishment, and (2) develop a solid partnership of cooperation in the financing and delivery of TVET over the long run. Stakeholders should prepare a shared strategy for the future. This would tend naturally to concentrate in the first instance on training for industrial occupations. Second, analytical work should be carried out to bring into sharper focus the skill requirements for income generation in the non formal sector. The vast majority of the population will continue to live in the countryside for the foreseeable future with limited means to earn a better living. Small experiments have been tried to provide skills for income generation, but the scale has been limited. A survey could be conducted on rural non-farm skills, along with an evaluation of current mechanisms for skill delivery within public institutions and non-governmental institutions. Programs with good results should be identified along with an analysis of constraints on their expansion.

24. **The Vision for 2020.** The key aim by 2020 is to establish much closer linkages for skill training with job markets. By 2020 Bangladesh should have a much greater diversity of provision and targets of skill training. The impact of TVET on poverty alleviation would have been increased through greatly expanded public financing of TVET for disadvantaged groups, much of it for income generation in the informal sector. Major reforms would also have been achieved in the delivery of TVET. For the most part publicly financed TVET would be delivered through cost-sharing arrangements with non-governmental institutions and employers. Local management will have replaced central management of the remaining publicly delivered TVET through decentralized authority to managers of public training institutions. Instead of the training provision, the central government role in TVET will be to perform the functions and activities not easily done by non-government providers, namely development of information systems, policies, standards, curricula, teaching materials and instructor training. Non-public resources would be mobilized through partial cost-recovery from beneficiaries; through use of facilities for income-generating production; and by establishment of financial partnerships with enterprises.

25. Three main strategic changes are necessary to realize the vision for 2020: (1) the government should make public vocational training more relevant and effective by turning it over to the private sector to own, operate and finance. This will take some years to accomplish. In the interim the government should delegate authority to managers of public training institutions,<sup>24</sup> require them to find their own training markets, encourage them to be more self-sufficient, and hold them accountable for results, (2) the government should provide additional resources for vocational training of underprivileged groups; and (3) this additional publicly financed training should be delivered through non-governmental institutions. These and other

---

24 Another long-range option to consider would be to convert DTE into an autonomous organization controlled by employers. This would improve linkages to the labor market, require greater accountability of staff and enable resource mobilization. The key requirement would be employer control. This appears to be the essential ingredient for success in other countries, e.g. SENAI in Brazil.

recommendations below are broadly consistent with recommendations made in the Fifth Five Year Plan and the proposed National Education Policy. They differ mainly in advocating that additional public provision of TVET should be channeled through non-governmental providers.

**26. Some basic principles underlying the recommended Strategy.** The recommended strategy is based on the following principles:

- (i) The public sector, in most countries, finds it extremely difficult to provide quality skill training that is linked closely to the job market. In the long run, the public sector in Bangladesh should concentrate on formal education and transfer vocational skill training to employers and non-government training institutions.
- (ii) The best hope for a vibrant skill training system in the long run is to turn it over to the private sector. The public sector in most countries finds it difficult to provide relevant, quality vocational training related to current needs in the labor market and Bangladesh is no exception. The necessary reforms of TVET cannot be achieved by tinkering with somewhat more interaction with industry. It requires a decisive role for the private sector in identifying training requirements, adjusting skill supplies to markets and managing training delivery. The best long term solution would be to develop an independent training authority owned, managed and financed by enterprise associations, as has been done with great success in Brazil (SENAI).
- (iii) This does not mean that the government would cease to have a role in vocational skills training. Rather, it means that its focus would shift to the things that are typically not done (or not done well) by private vocational providers, such as development of policy and standards, development of training materials and instructors, collection of statistics, monitoring of results, and financing but not on delivery of training.
- (iv) Private and public training institutions can be held accountable for results through the monitoring of outputs to determine whether they meet predefined standards (for example, completion rates for trainees, performance on exit skills tests and employment rates). Institutions would be rewarded or penalized according to the extent to which standards were met. The ultimate sanction would be to replace the management of the training institution.
- (v) Privatization should be undertaken gradually, but deliberately. This Review does not recommend changing all TVET institutions at once, but rather experimentation, evaluation of results, modifications in policies/practices, then proceeding further if warranted. It is recommended to start with a few specialized institutions (e.g. leather technology training or textile training for which there are corresponding industrial associations that could take over responsibility), and subcontracting the management of a few new VTIs or TTCs to the private sector.
- (vi) An alternative to privatization—perhaps second best—would be to decentralize authority to the management of existing public training institutions and hold them accountable for results.
- (vii) Most skill training should be provided outside the school system. In other terms, the school system should not aim to provide occupational skills to students. The reasons are that school systems typically do not do a good job in providing occupational skills and the students are often not serious about entering the occupation for which they are being trained. Within the school system vocational training also tends to be excessively lengthy. It is preferable that skill training be provided after completion of formal schooling for those already in, or about to enter, the labor market. The training should be short and intensive, with opportunity for continuous upgrading and updating.
- (viii) Public financing and private delivery. Financing and delivery of TVET should be separated. A fundamental change of view is needed. A government case for financing vocational training does not confer monopoly powers also to deliver it. Instead, efficiency suggests that the public sector "purchase" the outputs of TVET from the least costly sources for a given standard of training (or, for a given

expenditure, from the training institutions that maximize the outputs). Private training providers frequently can be more efficient in delivering outputs to standard than public institutions, and this should be tried in Bangladesh.

- (ix) Resource mobilization is essential and inevitable to raise the funds needed for improving quality of inputs in technical-vocational education and training.
- (x) Resource mobilization can come from a variety of different sources (see objective 5, below): tuition payments by trainees, receiving used equipment or instructors on loan from enterprises, using facilities for commercial contracts and production (e.g., training cum production). Existing regulations would need to be changed to allow public training institutions to raise, keep and spend the funds they mobilize with appropriate safeguards for transparency and accountability.<sup>25</sup>
- (xi) Cost recovery from trainees would not be expected to recover the full costs, except perhaps for marginal costs in evening courses. Cost recovery would normally be only cover a part of the costs. The appropriate proportion to be recovered would need to be determined after further study. Public financing would continue to be necessary at approximately current levels.
- (xii) Cost recovery is equitable. TVET confers upon the recipients substantial private benefits in the labor market in terms of increased income and standards of living. Much of the clientele of TVET tend to come from the middle income families or enterprises and many can afford to pay for services received. However, cost recovery should be introduced in conjunction with provision of scholarships for students from needy families.

**Table 1.3: Towards Development of a Long Term Strategy for TVET**

Objectives	Strategies
<p><b>1. Achieve greater responsiveness to job markets in publicly provided TVET.</b></p>	<ol style="list-style-type: none"> <li>1. Make a policy decision to turn over vocational skill training to the private sector and establish an independent training authority owned, operated and largely financed by employers. Start immediate planning for the creation of the new organization and transfer of public vocational training institutions to it.</li> <li>2. In the interim, decentralize authority to managers of TVET institutions               <ul style="list-style-type: none"> <li>• Give training managers the freedom to act (e.g., along with appropriate accountability—in terms of staffing, program content, enrollment numbers, and reallocation of budget).</li> <li>• Establish performance incentives for managers.</li> <li>• Make managers accountable to the center for results.</li> <li>• Provide managers with intensive training on institutional management.</li> </ul> </li> <li>3. Require public institutions to become more self-sufficient and find their own training markets.               <ul style="list-style-type: none"> <li>• Conduct job analysis surveys.</li> <li>• Establish local employer councils.</li> <li>• Institute cost-recovery mechanisms to pay at least for consumable supplies and equipment repairs.</li> <li>• Develop entrepreneurship and micro-enterprise training programs.<sup>26</sup></li> </ul> </li> </ol>

*Continued*

<sup>25</sup> Earning money can also become obsessive and get in the way of training, a common problem with 'training-cum-production' schemes. Balance is needed and the training objectives must not be obscured.

<sup>26</sup> In view of the importance of generating self-employment the government should make a major effort to develop and disseminate entrepreneurship training programs of different kinds, including linkages with credit sources. This can include. (a) broad-brush

Continued Table 1.3

Objectives	Strategies
	<p>4. Privatize public training institutions where appropriate, such as privatizing some single-purpose technical institutes (leather, textiles) to enterprise associations; this may include some subsidies, financial assistance, or other incentives to ensure a proper transition.<sup>27</sup></p>
<p>2. Broaden the impact of TVET by diversifying clientele and provision,</p>	<p>1. Reconsider the policy emphasizing school-oriented TVET</p> <ul style="list-style-type: none"> <li>• Evaluate the effectiveness of current SSC (Vocational).</li> <li>• Emphasize post-school TVET that is short and modular for older young adults.</li> </ul> <p>2. Expand the public financing of TVET to reorient it toward underprivileged groups such as women, and underprivileged urban and rural youth.</p> <ul style="list-style-type: none"> <li>• Make a major effort to expand training for informal sector occupations; it should focus on the 80 percent of the population living in the countryside with limited means to enable them to earn better incomes. After experimentation and evaluation a strategy should be developed for going to scale. These programs should reduce the opportunity cost to trainees by making them short and intensive.</li> <li>• Develop new programs, including entrepreneurship and income generation for informal sector activities.</li> <li>• Establish quotas for female participation in regular programs.</li> <li>• Evaluate the non formal training programs of the Ministry of Youth, finance expansion of successful programs, and improve the effectiveness of existing programs.</li> <li>• Analyze the system of traditional apprenticeship as practiced in the informal sector with a view to providing support for improvements.</li> <li>• Establish training fund to finance, on a competitive basis, new programs for underprivileged groups, coupled with rigorous evaluation of results.</li> </ul> <p>3. Within technician education, diversify training provision.</p> <ul style="list-style-type: none"> <li>• Broaden course offerings for regular students.</li> <li>• Develop upgrading programs for employed technicians</li> <li>• Prepare intensive two-month course in entrepreneurship for recent graduates.</li> </ul>

Continued

introductions of entrepreneurship principles for secondary and post-secondary levels; (b) intensive post schooling courses for those interested in becoming self-employed particularly for polytechnic and university graduates; (c) non formal training through non-governmental institutions, and (d) establishment of business incubators at selected training institutions. (See the ADB project proposal for more information on incubators.)

27 The justification for financial assistance to enterprise associations would be the cost savings that would be realized in public expenditures by transferring responsibility for operating costs to the private sector.

Continued Table 1.3

Objectives	Strategies
<p><b>3. Make non-governmental vocational training a major provider of TVET.</b></p>	<ol style="list-style-type: none"> <li>1. Expand provision of non-government-delivered TVET <ul style="list-style-type: none"> <li>• Channel new public financing of TVET to non-government delivery in stages.</li> <li>• Turn over some vocational training institutes to non-governmental management on a bidding basis, especially some of the new<sup>28</sup> VTIs/TTCs being established.</li> <li>• Establish fund for competition among non-governmental institutions for delivery of training programs.<sup>29</sup></li> </ul> </li> <li>2. Encourage the development of quality private TVET. <ul style="list-style-type: none"> <li>• Introduce incentives for opening or expanding proprietary vocational training, e.g., tax credits for donations, tax-exempt status for private school operations, partial subsidization based on performance in the market, and freedom to establish tuition rates.</li> <li>• Actively support development of an association of private technical/vocational training providers to represent the interests of proprietary training institutions.</li> </ul> </li> </ol>
<p><b>4. Concentrate the public sector on the functions and activities that non-government institutions and the private sector cannot do easily.</b></p>	<ol style="list-style-type: none"> <li>1. Rather than delivery of training, the central government should concentrate to: <ul style="list-style-type: none"> <li>• Establish and operate labor market information systems on a national and regional level to improve the accuracy of signals of skill needs.</li> <li>• Develop monitoring and evaluation systems about TVET, including evaluation of costs and outcomes, performance, and what works and does not work.</li> <li>• Policy development.</li> </ul> </li> <li>2. Establish effective government—industry coordination councils to plan development of the system.</li> <li>3. Standards development: Establish standards for, accredit, and monitor non-governmental vocational and technical training so as to provide the public with information about the quality, stability and relevance of the courses, and establish minimum levels of quality.<sup>30</sup></li> <li>4. Continue and improve trade testing and certification.</li> <li>5. Experiment with new curricula, based on advice from sector-specific industrial committees.</li> <li>6. Develop teaching materials.</li> <li>7. Expand and improve teacher and instructor training</li> </ol>

Continued

28 It would be easier to contract out the management of new training institutions to non-governmental institutions rather than attempt to install new management in existing institutions. For example, the non-governmental institutions could hire the staff of the new institution, whereas existing staff would perhaps resist changes to their conditions of service.

29 There is precedent for this: The joint ADB/World Bank project for NFE (February 1996) includes non-governmental delivery of literacy programs on a large scale, financed by external donors and the government.

30 Care must be taken to ensure that the government control over private vocational training is "light" and does not interfere with the proper incentives and functioning of the institutions.

Continued Table 1 3

Objectives	Strategies
<p>5. Mobilize non-public resources for TEVT.</p>	<ol style="list-style-type: none"> <li>1. Introduce partial but significant cost-recovery policies together with means-based scholarships. <ul style="list-style-type: none"> <li>• Change the stipend system in public training institutions from merit to need.</li> <li>• Sell courses, make more extensive use of afternoon and evening short courses on a cost-recovery basis, etc.</li> <li>• Introduce tuition charges, initially for consumable supplies and later for teaching charges.</li> <li>• Consider means to get more progressive industries to contribute to the operation of vocational institutions, e.g., by lending employees as part time instructors, providing used equipment, establishing funds for development of specific institutions, etc.</li> </ul> </li> <li>2. Use facilities for commercial contracts and production. <ul style="list-style-type: none"> <li>• Central government should grant permission for commercial work to be done at the institutes.</li> <li>• Facilities could be rented to local enterprises during idle hours for additional income.</li> </ul> </li> <li>3. Establish partnerships with enterprises, garnering financial inputs from local employers. <ul style="list-style-type: none"> <li>• Loan instructors from industry to training institutions.</li> <li>• Donate equipment.</li> <li>• Sponsor scholarships for needy students.</li> </ul> </li> </ol>

## H. FINANCIAL IMPLICATIONS OF REFORMS (POSSIBLE INVESTMENTS)

27. Implementation of the above reform measures would require some key financial support, including the following:

- Development of labor market information systems and capacities to monitor and analyze the system of TVET.
- Support for a secretariat to service a national council on occupational training.
- Strengthening instructor training.
- Establishment of a fund to finance experimental programs by non-governmental institutions and provide incentives for establishment of private training capacity.
- Technical assistance for an association of non-governmental and private training providers.
- Funds to finance expansion of non formal programs for disadvantaged groups.
- Development and dissemination of entrepreneurship programs.
- Provision of funds on a competitive basis for re-equipping and development of selected, deserving public training institutions that undertake reforms.
- Funds for expansion of facilities to be managed by non-governmental institutions.

## I. STUDIES NEEDED

28. The studies needed are:

- Costs and outcomes of SSC (Vocational) studies within vocational institutions.

- The operations, strengths and weaknesses of the traditional apprenticeship system for training skills in the informal sector.
- Constraints on the establishment and operation of proprietary vocational training and on in-service occupational training within enterprises.
- Costs and effectiveness of the Ministry of Youth's rural training programs that prepare trainees to open micro-enterprises and are linked with credit schemes.
- Feasibility studies for enterprise associations to take over existing specialized institutes (e.g., leather and textile technology institutes).

## ANNEX

### A. TECHNICAL EDUCATION BOARD (TEB)

29. The Technical Education Board<sup>31</sup> is the successor to the East Pakistan Technical Education Board. In its present form the TEB became operative in June, 1969. The Board comprises the following persons:

- (i) Director General of Technical Education
- (ii) Director General of Secondary and Higher Education
- (iii) Director, BIT, Gazipur
- (iv) Principal, Technical Teachers Training College, Dhaka
- (v) The Vice Chancellor of BUET, or his representative
- (vi) Three principals of polytechnic/monotechnic institutes
- (vii) A representative of the National Council of Technical Education

30. The Board has the following functions:

- prescribe courses of instruction
- arrange for development of learning materials
- grant (or withhold/withdraw) affiliation for non-government institutions
- set conditions for admission or transfer of students
- monitor the teaching-learning activities of the institutions
- arrange for distance learning activities
- conduct and regulate the examinations—including setting and collecting fees—and to evaluate performances and publish results
- grant diploma/certificate to successful candidates.

31. The TEB has 94 staff and is completely self-supporting based on examination fees. It is not dependent on the Government budget. The Board has two main sections: Curriculum Development and Textbooks and Examinations. The Curriculum Development Directorate is responsible for establishing all syllabuses and teaching programs in all technical/vocational training institutions, including short courses (e.g., trade training in VTIs), certificate programs, diploma programs (polytechnics) and even degree programs in monotechnics. Its scope of authority includes training programs by other ministries, including the Technical Training Centers of the Ministry of Labor and Manpower.

32. The Curriculum Directorate has a well developed process for curricula development. The Board forms a committee to do the work and appoints the people. These committees include industrial representatives. The committee evaluates the existing programs and does a survey, including job analysis and solicitation of the views of industrialists.

33. The Curriculum Directorate is also responsible for development of teaching materials in Bangla. So far it has developed 630 titles, enough for at least one book in each subject. The Board has its own printing facility, but has not found publishing such titles on small scale to be profitable.

---

31 This section is based on an interview with the staff of the Technical Education Board in May, 1998, and the publication "Education and Training Programmes," BTEB/ACAD/597/September 1995.

34. The Curriculum Directorate is responsible for inspection of affiliated institutions and assessment of academic activities. It has recently established a Research Cell to assist in its activities.

35. The Board gets little guidance directly from the labor market. The absence of a good labor market information system is the "weakest part of the system" according to the current Chairman. The Board, as does all of technical education, tends to follow a supply-oriented model which assumes the skills are needed. The view is held that even if the graduates are unemployed, they can produce something or be easily retrained later. One exception to the lack of labor market information is an excellent tracer study done by the staff of the Board in 1990 with financial assistance from the UNDP.<sup>32</sup> The recommendations of this study are still valid as witnessed by their similarity with the recommendations on technical/vocational education in the 1998 National Education Policy document (see section K on Plans and Policies in this annex).

36. Generally the examinations of the Board are recognized as valid and consistent. They are set by the best teachers and moderated by another group. The reputation of the TEB in examinations reportedly is better than that of the general examinations board. Part of the test is to examine practical knowledge, but this was recognized as needing more attention. In fact, actual instruction is much less than the intended 60 percent practical content. The pass rates of students have been declining, but this is attributed to the political conditions of the country not deterioration of the system as a whole.

37. *Issues:*

- The Board has not been able to establish effective channels of communication with employers.
- There is a notable minority of industrial representation on the Board, only 2 of 14 persons in 1995.
- It is not possible to revise curricula quickly in response to changes in technology. The average is only once per five years.
- The centralized process of curricula development does not easily allow for local relevance or differences. Standardized curricula reduce the initiative of teachers and causes them to ignore linkages with local labor markets. In response to this criticism, the TEB states that administrators and teachers of training institutes do not want authority and are quick to give it up to the center. This deference to the central authorities applies particularly to admissions and examinations, under which they tend to come under intense personal and political pressure, not to definition of curricula.

38. Overall, the BTEB has the following approved courses and affiliated institutes:

**Table A-1: BTEB Approved Courses and Institutions**

Approved Courses	Length (Yrs.)	Entry Qualifications	No. Affiliated Institutes		Entry Capacity (Students)		No. Specializations
			Public	Private	Public	Private	
<i>Teacher Training</i>							
Dipl. Technical Educ.	1	Dipl. Eng.	1	-	120	-	3
Dipl. Vocational Educ.	1	Cert. Voc. Edn	1	-	80	-	8
Cert. Vocational Educ.	1	Trade Cert + SSC	1	-	135	-	9
<i>Technician Training</i>							
Dipl. In Engineering	3	SSC	20	3	4420	360	13
Dipl. Monotechnics <sup>33</sup>	3	SSC	12	-	535	-	7

*Continued*

<sup>32</sup> "Report of the Tracer Study for Polytechnic Graduates of Bangladesh," UNDP/Unesco Technical Assistance Project BGD/001; Bangladesh Technical Education Board, 1991. See Annex C for a summary of the recommendations.

<sup>33</sup> Including printing (40 students intake); Ceramics (40 intake); Marine Technology (40 intake); Textiles (300 intake); Survey (80 intake); Forestry (35 intake).

Continued Table A-1

Approved Courses	Length (Yrs.)	Entry Qualifications	No. Affiliated Institutes		Entry Capacity (Students)		No. Specializations
			Public	Private	Public	Private	
Dipl. In Agriculture <sup>34</sup>	3	SSC, Science	11	4	2200	800	1
Dipl. In Agriculture <sup>35</sup>	1.5	SSC + I.S Trg.	11	-	6000	-	1
Dip. In Commerce	2	SSC	-	5	-	400	-
<b>HSC</b>							
HSC (Vocational)	2	SSC (Vocational)	51	-	1520	-	9
HSC (Business)	2	SSC	-	220	-	8,800	5
<b>SSC</b>							
SSC (Vocational)	2	Class VIII	62	510	5830	25800	21
SSC (Textile)	2	Class VIII	27	-	1080	-	2
<b>Nat'l Skill Standard</b>							
Grade II	1	Nat. Skill Std. III	-	2	-	80	4
Grade III	1	Class VIII	-	5	-	340	7
<b>Basic Trades</b>							
Sec. School Class IX	360 hrs	Class VIII	64	3	14100	900	21
Sec. School Class X	360 hrs	Class IX	64	3	9400	600	21

Source: TEB, handout, May, 1998.

## B. DIRECTORATE OF TECHNICAL EDUCATION (DTE)

39. The DTE is responsible for planning, development, coordination and supervision of technical and vocational education under the Ministry of Education. Its main functions are to:

- Assess the needs of skilled manpower at all levels.
- Prepare policy guidelines for the Ministry of Education on consolidation, improvement and expansion of TVET.
- Prepare project proposals and ensure effective implementation of approved projects and programs through continuous monitoring and evaluation.
- Prepare annual budget proposals for the DTE and TVET institutions under its purview and allocate funds in the approved budget.

40. The Directorate oversees several degree programs: the Technical Teacher Training College (TTTC), polytechnics and monotechnic institutes, the Vocational Teacher Training Institute (VTTI), and Vocational Training Institutes (VTIs). An overview of present programs follows:

<sup>34</sup> Via distance learning.

<sup>35</sup> For Block Supervisors, in service via distance learning.

Chart 1.1: Organogram of Directorate of Technical Education

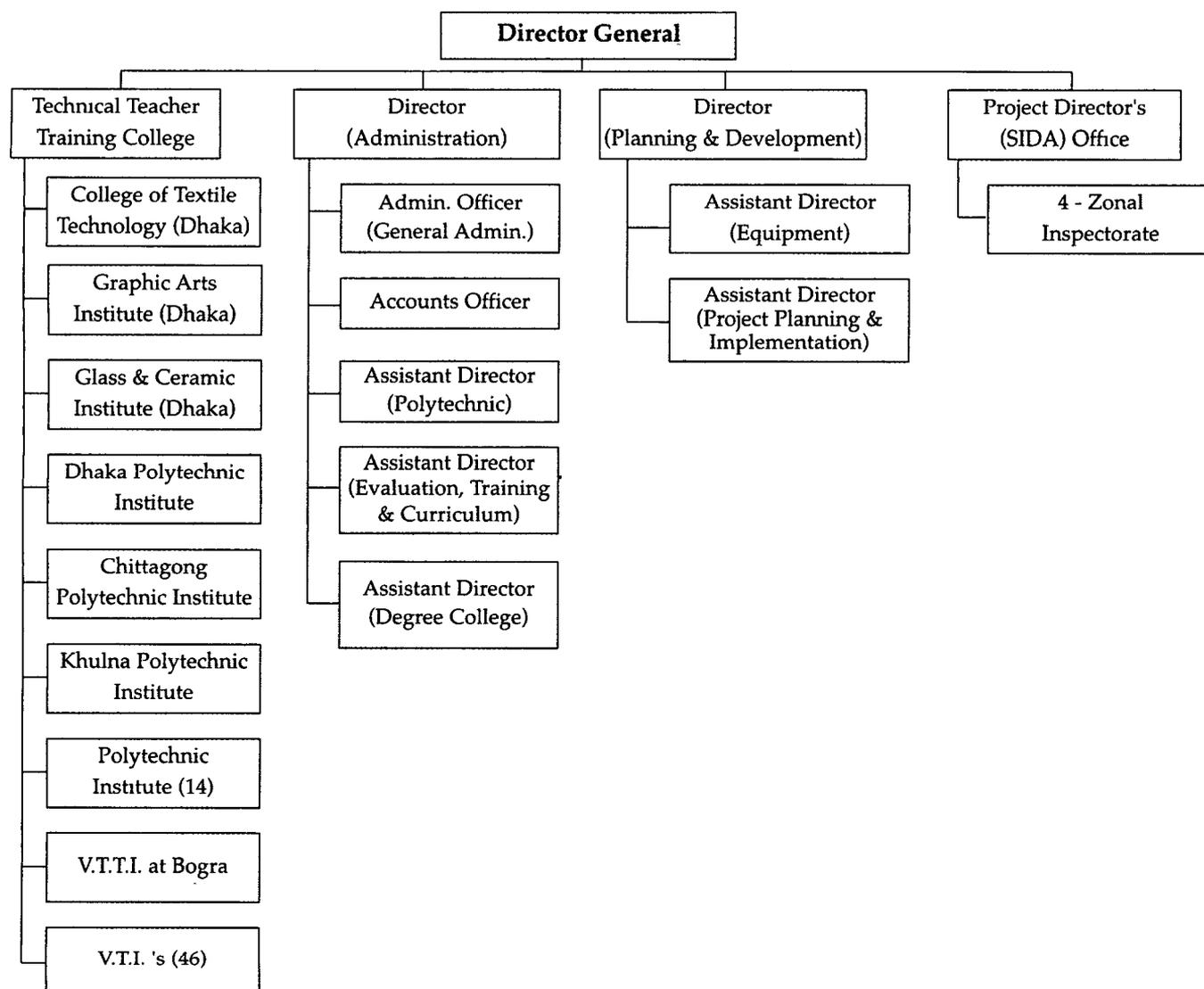


Table A-2: Training Programs under the DTE

Program/Institution	Entry Requirement	Length (Years)	Number	Intake Capacity (Students)	Examining Agency
<b>• BSc</b>					
College of Textile Technology	HSC	4	1	50	Dhaka Univ.
College of Leather Technology	HSC	4	1	30	Dhaka Univ.
<b>• Diploma</b>					
Polytechnic Institutes	SSC	3	20	4500	BTEB
Institute of Glass & Ceramics	SSC	3	1	40	BTEB
Graphics Arts Institute	SSC	3	1	50	BTEB
Survey Institute	SSC	3	1	30	BTEB
<b>• Certificate-SSC (Vocational)</b>					
Vocational Training Institutes (VTIs)	Class VIII	2	51	2800	BTEB
Secondary Schools (IX-X)	Class VIII	2	500	30000	BTEB

Continued

Continued Table A-2

Program/Institution	Entry Requirement	Length (Years)	Number	Intake Capacity (Students)	Examining Agency
• Basic Trades (TTCs/VTIs)	-	360 hours	64		BTEB
• Teacher Training					
BSc (Tech. Educ.) TTTC	Dip Tech.Edn	2	1	40	Dhaka Univ.
Dipl. Tech. Educ. TTTC	Dip. Eng.	1	-	120	BTEB
Dipl. Voc'l. Educ. VTTI	Cert. Voc. Edn	1	1	80	BTEB
Cert. In Voc'l. Educ. VTTI	SSC +NSSII	-	1	120	

Source: Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997.

41. Current projects underway include the following:

Table A-3: Current Projects under DTE

Project	Program	Expected Output	Cost (Tk. Millions)
• Introduction of SSC (Vocational) course in 500 non-government schools	SSC (Vocational)	1 <sup>st</sup> Yr. Intake: 30,000 students	1,198
• Establishment of 13 new VTIs and development of the existing 51 VTIs	SSC (Vocational) HSC (Vocational)	SSC: 5,660 (1 <sup>st</sup> Yr.) HSC: 5,660 (1 <sup>st</sup> Yr.)	697
• Introduction of HSC (Business Management) in 200 Schools & Colleges	HSC (BM)	1 <sup>st</sup> Yr. Intake Capacity: 800 students	379
• Writing and Publication of Books		630 books on different subjects	97
• Modernization of College of Textile Technology	BSc Textiles	1 <sup>st</sup> Yr. Intake: 100 students	263
• Modernization of College of Leather Technology	BSc Leather	1 <sup>st</sup> Yr. Intake: 60 students	326
• Student Stipends in post-secondary technical education	BUET, BIT, Polytechnic, Monotechnic students	82,425 stipends	228
• Students stipends in secondary-level vocational education	Students in SSC (Voc.), HSC (Voc.) and HSC (BM)	216,100 stipends	292
<b>Total</b>			<b>3,480</b>

Source: Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997.

42. One of the aims of the DTE is to increase the proportion of students in secondary education and post secondary education enrolled in vocational technical subjects from 3.5 percent at present to 10 percent by the year 2000, and then 50 percent by the year 2015. To help achieve these ambitious goals the following new development projects are planned by the DTE:

Table A-4: Planned Projects by DTE

Project	Program	Expected Intake or Output	Cost (Tk. Millions)
• Establishment of 13 new polytechnics and modernization of 20 existing polytechnics	Diploma in different technologies	1 <sup>st</sup> Yr. Intake: 3500 students	3,630
• Establishment of three new women's (Mohila) polytechnics	Diploma in different technologies	1 <sup>st</sup> Yr. Intake: 500 students	593
• Establishment of one Vocational Teachers Training Institute (VTTI) at Jessore	DVE CVE	210 teachers will be trained annually	185
• Establishment of one new College of Textile Technology at Khulna	BSc Textile Technology	1 <sup>st</sup> Yr. Intake: 120 students	676
• Establishment of one new College of Leather Technology at Chittagong	BSc Leather Technology	1 <sup>st</sup> Yr. Intake: 40 students	700 (est.)
• Introduction of SSC (Voc.) in 250 Dakhil Madrashes	Dakhil (Voc.)	1 <sup>st</sup> Yr. Intake: 10,000 students	1,647
• Modernization of the Survey Institute	Diploma Survey	1 <sup>st</sup> Yr. Intake: 40 students	95
• Modernization of the Glass and Ceramic Institute	Diploma Glass	1 <sup>st</sup> Yr. Intake: 40 students	179
• Expansion of the DTE		Office accommodations for officers, staff	135
<b>Total</b>			<b>7,840</b>

Source: Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997  
DVE = Diploma in Vocational Education  
CVE = Certificate in Vocational Education

43. The full financing has not yet been secured for the above planned projects.

44. As a result of these projects the intake capacity of the system of technical and vocational education is expected to increase as follows:

Table A-5: Planned Increase in TVET Student Intake Capacity

Level	New Institutions	Student Intake 1997	Additional Student Intake	Total Student Intake on Completion
<b>Technological</b>	1 Coll Textile Technology	80	210	290
(BSc)	1 Coll. Of Leather Technology			
<b>Technician</b>	13 Polytechnics	4600	4,100	8700
(Diploma)	3 Women's Polytechnics			
<b>Certificate</b>	13 VTIs			53500
SSC (Voc)	500 secondary schools	7800	45,700	2800
HSC (Voc)	250 Dakhil Madrashes	700	2,100	8000
HSC (BM)		4100	3,900	30000
Basic Trades		30000	-	

Continued

Continued Table A-5

Level	New Institutions	Student Intake 1997	Additional Student Intake	Total Student Intake on Completion
<u>Teacher Training</u>				260
CVE	1 Vocational Teacher Training	120	140	150
DVE	Institute (VTI)	80	70	120
DTE		120	-	80
BSc (Tech.Edn.)		80	-	103900
<b>Total</b>		<b>47700</b>	<b>56200</b>	

Source: Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997.

45. **Comments:**

- Expansion of VTIs is being done apparently without rigorous needs assessments of employment potential and demand.
- Rather, the capacity is being expanded in response to social demand by secondary school students for SSC (Vocational) programs, which give trade qualifications as well as SSC for entry to higher levels of education. Greater enrollment in SSC (Vocational) also means greater demand for vocational teachers. This has led to increased enrollments and utilization of facilities at existing teacher training institutions (VTI, TTTC).
- Substantial sums are being spent on stipends for students in secondary and post-secondary vocational and technical education. The economic justification for these subsidies is not clear.
- The active, export-oriented employers' associations in leather and textiles have not been asked to support financially the modernization and expansion of capacity of the respective technical colleges, or to help reform the teaching programs. Rather than creation of new institutions in leather and textiles, the Government should consider privatizing the existing colleges and giving incentives to enterprise associations to finance the expansion of training capacities.

C. POLYTECHNICS (DIPLOMA ENGINEERING)<sup>36</sup>

46. The existing 20 polytechnics give three year courses leading to the Diploma in Engineering. In addition, a two-month industrial attachment is given to most students at the conclusion of their studies. Total enrollment is about 15,000 students. The final examination is administered by the TEB. Fields of study include architecture, automobile, ceramics, civil engineering, chemical engineering, food processing, computer technology, electrical engineering, electronics, industrial engineering, mechanical engineering, power engineering, printing (graphic arts) and survey. Ceramics, printing and survey are given in single-purpose institutions, or monotchnics.

47. The demand for places is high in polytechnics. The Women's Polytechnic in Dhaka has six applicants for every available place; the Polytechnic in Rajshahi has almost 20 applicants per place. Many polytechnics, e.g., Rajshahi, operate on double shift to accommodate more students. Each institution administers its own admissions examination, but selections are made centrally based on SSC results and the examination. The proportion of females in the total enrollment is low, only about 6-7 percent. About two-thirds of students receive stipends based on merit. Students take about 35 class contact hours weekly. Instructors normally teach from 24 contact hours (junior instructors) to 18-20 hours (instructors) and 8-12 hours (chief instructors.)

36 This section is based on interviews with the DTE and visits to three polytechnics (Mohila, Dhaka; Comilla and Rajshahu), and Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997.

Dropout varies by institution, from about 10 percent in most polytechnics to about 25 percent in the female polytechnic (reportedly owing to lack of dormitory space.) About 60 percent of the teaching content is supposed to be taught in practical classes. Curricula have not been revised in more traditional fields (civil, mechanical and power engineering) since 1992. In other fields, a new curriculum was devised in 1997. Some courses (2 hrs/week in the last year) are taught in entrepreneurship. Most polytechnics are starting to offer short courses in the late afternoons and evenings, mainly in computer applications. Fees are charged for these short courses, 90 percent of the revenue from which stays at the institution.

48. Performance on final examinations is relatively weak, ranging from 40 percent pass rate in Comilla to 60 percent in Rajshahi. However, eventually 90 percent of the students in the final year pass by taking supplementary examinations in failed subjects. Employment prospects for graduates are poor. Reportedly a stock of 7,000 unemployed diploma engineers exists from previous years. One polytechnic estimated that 10 percent of the graduates were unemployed; 60 percent were employed in their own or other fields; and 30 percent went on to some form of higher education. Demand for further education is strong: most students would like to gain access to the Dhaka BIT. However, competition is strong for admission. The 20 polytechnics can send students only to that BIT.

49. Officers and staff of the polytechnics visited voiced the same concerns about problems within the polytechnics, viz. :

- Lack of material inputs for teaching, including recent equipment, raw materials, textbooks, journals and other teaching materials. For example, the Rajshahi Polytechnic has only 10 seats for its library and no journals. As a result, the teaching gravitates mostly towards theory. The 60 percent practical content cannot be implemented adequately.
- Exceedingly slow processes for filling teaching vacancies, so that staff in post often have to bear excessive teaching loads. The Comilla Polytechnic has a 25 percent vacancy rate for teaching staff (12 of 48 posts). Some staff are teaching up to 48 contact hours per week, more than a double load, without additional compensation.
- Lack of promotion possibilities for staff and lack of means to keep up to date with changes in technology. As a result, teaching staff feel that they are vulnerable to becoming obsolete quickly.

50. In addition, the following problems can be observed in the operation of the polytechnics:

- Excessive centralization. Administrators and staff of the institutes do not belong to the institutes, but rather the central administration. Most administrative decisions (admission numbers, curricula, etc.) are made centrally.
- Lack of articulation with local enterprises and industries: Staff arrange for industrial attachments for most students. However, local employers have little or no say about the content of teaching programs and operation of the polytechnics. When asked for what markets the students were being trained, staff at one polytechnic replied, "Ask the center."
- Entrepreneurship: Given the extreme difficulties that graduates face in the job market the provision of some entrepreneurship training as part of the course is to be applauded. However, it would probably be much more effective if—in addition—a concentrated short program (of say, three months) could be given to graduates after a period away from the institute (say, six months to one year). Such courses could focus on marketing surveys, preparation of business plans, applications for credit from available sources (e.g., the new employment bank), accounting and other practical issues in the start-up of micro-enterprises. Polytechnic graduates have a natural advantage in small-business creation and have been found to be the source of considerable entrepreneurial talent in other countries.

51. Although somewhat dated, one of the best analyses done on polytechnic education was a tracer study carried out by the staff of the Directorate of Curriculum of the Bangladesh Technical Education Board.<sup>37</sup> This study issued the following findings:

- Only 36 percent of employed technicians are graduates of polytechnics; the rest have had little if any formal technical training. This suggests considerable scope for upgrading and up-dating of practicing technicians. One of the recommendations was to establish sandwich courses starting with unqualified technicians. Another was to develop a program of short-term training, during convenient times for employed persons, for technological updating. Enterprises should be encouraged to sponsor their employees for such training.
- Employment prospects for graduates were not encouraging: 23 percent of graduates got employment within three months of graduation; 60 percent were employed after 18 months. These rates have apparently declined substantially; as graduates are finding much more difficulty in finding jobs now. As a result of limited job prospects about 40 percent of the graduates went on to further education. The survey forecast fewer job opportunities for civil engineering technicians (from 48 percent of the total to 34 percent by the mid 1990s) and power engineering (from 13 percent to 9 percent of the total job opportunities), and greater prospects for electrical (from 15 percent to 27 percent) and mechanical engineering technicians (from 24 percent to 30 percent). It is correct that electrical and especially electronic engineers at present have the most favorable employment prospects. The report recommended that the polytechnics introduce courses in computer science and instrumentation.
- The survey found that 12 percent of the graduates were self-employed. The lack of entrepreneurship training and especially capital were the most serious obstacles to self-employment. The report recommended that staff of the polytechnics design and conduct 12-week post-diploma entrepreneurship training on identification of business ideas, obtaining credit, marketing of products and obtaining services. This meritorious recommendation has not been implemented.
- The survey found that 30 percent of teaching posts were not filled; 91 percent of the teachers had no industrial work experience; none of the administrators had formal management training. These problems persist. The report recommended making technical teacher training and industrial experience compulsory. For those without such training, in-service opportunities should be provided.
- The survey pointed to problems in implementing the curriculum, owing to shortages of equipment, shortages of textbooks in Bangla and lack of teachers with practical skills. In particular, employers pointed to the inability of polytechnic graduates to communicate adequately in writing, their low level of cognitive knowledge and lack of manipulative skills. The report recommended greater use of job content surveys to identify knowledge, skills and attitudes valued by employers and then emphasize them in the teaching. Specifically, it recommended that the program for writing of textbooks in Bangla be strengthened, and that job sheets be developed for practical courses and staff trained in their use.
- The survey pointed to the discontinuity between training and working conditions in enterprises, i.e., the polytechnic training did not prepare students for the conditions they would face on the job. As a result, there was frequent turnover among those who got jobs. Half the graduates changed jobs once; 25 percent changed twice and 22 percent changed three times or more. The report recommended more rigorous training conditions approximating working conditions within the polytechnics. The industrial attachment program should also be strengthened with this aim in view.

---

37 "Report of the Tracer Study for Polytechnic Graduates of Bangladesh," UNDP/Unesco Technical Assistance Project BGD/001, Bangladesh Technical Education Board, 1991.

- The survey recommended that the TEB should monitor the operation of the institutes better. Rather than only checking the number of classes offered, it should look into qualifications of teachers, actual teaching in practical subjects, availability of textbooks and library facilities, etc.

#### D. VOCATIONAL TRAINING INSTITUTES (VTIS)<sup>38</sup>

52. VTIs provide two basic types of training.

53. **SSC (Vocational).** VTIs give two years of training for those with at least a Class VIII qualification towards a SSC (Vocational). The SSC (Vocational) is an integrated vocational and general secondary school certificate. The program requires 1440 class-hours of preparation (compared with 1000 class hours in general secondary education), with 60 percent of the time devoted to trade subjects. Skill levels are equivalent to National Skill Standard III (Class IX) and II (Class X). The principal courses offered are automobile mechanics, drafting (both civil and mechanical), electricity, farm machinery, machinist, radio and TV repair, refrigeration & air-conditioning, and welding. Upon successful completion graduates receive both a secondary school certificate and a trade certificate. The SSC (Vocational) graduate thus can enter into the job market or can proceed for further studies in technical or general education.<sup>39</sup>

54. **Basic Trade Training.** In addition, VTIs provide "basic skills training" for 360 hours to students of secondary schools (or those out of school) leading to a vocational qualification at NSS Standard III. Basic trade courses are organized in the afternoon and evening to optimize the use of physical facilities after the normal working hours. Students of Class IX and X of nearby secondary schools and madrasahs attend basic trade programs once a week (usually Fridays) for four classes over a period of two years. A wide range of specializations are taught in basic trades: welding, armature winding, auto mechanics, building maintenance, computer applications, drafting, house wiring, farm machinery, furniture and cabinet making, general mechanics, machinist, masonry, plumbing and pipe fitting, radio TV, refrigeration and air-conditioning, turner. The VTI shift is about 36 contact hours per week, for a working year of 40 weeks.

55. VTIs are typically small institutions, averaging only 120 students each on a single-shift basis in the existing 51 institutions. They are usually located in rural areas, and 80 percent of them include farm mechanics as an option. Female enrollments are generally low, averaging only 15 percent of the total. Because of their small size, the number of staff per student also tends to be low in the smaller institutions, between 7 and 10.

56. VTIs operated at much less than full capacity in most of 1980s and 1990s. However, introduction of SSC (Vocational) increased the demand for places significantly. The incentive for students to take SSC Vocational is that they obtain both trade certification for employment and general educational qualifications for access to further education. Two-thirds of the students receive a stipend of Tk 100/month plus free boarding in many cases. The addition of courses in basic trades has also increased use factors appreciably. Many VTIs have as many or more students taking basic trade courses on a second shift or weekends as are enrolled in regular courses. Basic trade programs tend to be self-supporting based on fees charged. Staff complain universally about lack of up-to-date equipment and budget for consumable supplies.<sup>40</sup>

57. Pass rates for students vary from year to year. In the Chapai Nawab VTI the pass rate in 1997 was 56 percent and increased to 76 percent in 1998. Students not passing the examination are given another opportunity as external candidates for subjects failed in the following year. Most pass the second time.

---

38 This section has been prepared on the basis of visits to two VTIs (near Dhaka and in Chapai Nawab, Rajshahi District, discussions with the DTE, and review of documents, including Directorate of Technical Education, "Technical and Vocational Education Programmes," July 1997.

39 In fact, graduates at this stage are relatively young for entry to the labor market.

40 The telephone at the Chapai Nawab VTI was disconnected because the institution's budget had insufficient funds to pay the bill over several months.

58. Job opportunities are limited for graduates. The training programs are not linked to the local job market. A high proportion of the graduates of some VTIs (40 percent in the VTI near Dhaka) reportedly go abroad. However, in Chapai Nawab all the graduates want to go on to further education and 80 percent reportedly do.

59. The cost per student at a small VTI (Chapai Nawab) is about Tk 17,000 per student compared with about Tk 1,800 for general secondary education. The VTI east of Dhaka stated that its cost/student was about Tk. 40,000. Several factors may explain these relatively high costs, including (a) relatively low number of students per teacher; (b) inclusion of pension and other social charges in the teacher salaries; (c) provision of stipends and boarding to most of the students.

60. Given the high costs and low rates of immediate employment, the expansion of VTIs on the present structure would seem to be questionable. However, an additional 12 VTIs are in the process of being established and constructed.

## E. MINISTRY OF LABOR AND MANPOWER

### *BMET*

61. The functions of the Ministry of Labor and Manpower,<sup>41</sup> in part, are to provide skills training and retraining; provide employment services both overseas and in-country; collect labor market information; provide vocational guidance and generate employment through self-employment. These functions are carried out through its Bureau of Manpower, Employment and Training (BMET).

62. The Employment Department focuses much of its efforts on arranging employment in economically advanced, labor shortage countries, such as in the Middle East and Malaysia. It placed more than 900,000 persons in overseas employment between 1991 and 1995, from which total remittances of Tk 188.4 billion were earned. In 1997 the figures were 231,000 persons employed abroad and remittances of Tk. 60 billion. The activities of BMET locally in generation of self-employment are much more modest, totaling 9,500 persons placed in self-employment during 1991-95. The placements decreased from 2,500 in 1993 to just 1,000 in 1995.

63. The Training Department within BMET is responsible for supervision of the activities of the Technical Training Centers (TTCs), preparation of standard training curricula and teaching materials, development of linkages with industries and organization of programs for upgrading industrial workers.

64. BMET is also responsible for organizing apprenticeship training. However, this is moribund with only 100 apprentices enrolled in 1998 (down from 350 in 1995)—mostly with multi-national companies. The 1962 Apprenticeship ordinance is now out of date. None of the loss-making state owned enterprises want to take on apprentices. The BMET also arranges for the upgrading of about 300 workers per year on modern technologies, such as CNC machines.

### *Plans*

65. Among the objectives of BMET over the Fifth Five Year Plan<sup>42</sup> are the following:

- To raise productivity of labor through skill development and upgrading of technology.
- To ensure access of women in vocational training and employment.
- To encourage private institutions/organizations to participate in imparting training for human development.
- To stress the generation of self-employment.

---

41 This section is drawn from an interview in May, 1998 with the BMET and "Handbook of Information on Training Activities," BMET

42 Fifth Five Year Plan, 1997-2002, Section 26.4-26.6

66. Strategies are not very extensive for achieving these objectives. All that is mentioned is to include involvement of local government institutions in organization of skill development training, and to establish an employment bank for funding self-employment schemes. Specific programs include unspecified in-plant and apprenticeship training programs to increase the output and productivity of skilled workers. The Plan also calls for the establishment of a "few advanced training institutes", mainly to ensure an adequate supply of trained instructors. Projections for institutional training more than double the present capacity of 8,000 trainees to 20,000 trainees in 2001/02. Apprenticeship training is also expected to increase sharply from 100 at present to 3,000 by the end of the plan period. Apart from calling for a suitable new apprenticeship act, no explanation is provided on how present obstacles to apprenticeship training are going to be overcome.

67. The Fifth Plan<sup>43</sup> allocates Tk. 150 million for skill development projects under Labor and Manpower, or 32 percent of the total allocation for new projects under this sector. The most recent ADP included funds for acquisition of land for an additional 13 TTCs, including one exclusively for women and one for aboriginal populations.

### *Issues*

- Training programs within TTCs have not been dimensioned on the basis of industrial surveys, nor have they kept up to date with the latest technologies. According to the BMET, curricula now need to be revised. There is a widespread lack of up-to-date technology.
- The BMET pointed to the large number of agencies involved in vocational training (Education, Manpower, Youth, Welfare and NGOs) and the lack of a coordinating agency. This results in overlapping of responsibilities and some duplication of efforts. In the 1980s, under an IDA project, a high level National Council for Skill Development and Training (NCSDT) had been established. However, it never functioned—in part because of its lofty membership—and was abolished. No coordinating agency has since been established.
- The BMET also referred to the lack of an overall training policy, with an adequate legal basis, to influence employers to participate in vocational training. Less regulation of vocational training would provide an environment and incentives for the private sector to establish vocational training.

### **F. TECHNICAL TRAINING CENTERS (TTCS)**

68. At present there are 11 TTCs in the country plus an Institute of Marine Technology providing training in two year programs leading to the SSC (Vocational) in some 21 trades. Annual enrollment is currently some 8-9,000 trainees (of whom only about 10 percent are female.) The two year training program includes nine months of institutional training and three months of industrial attachment.

69. TTCs offer the same program as the VTIs, namely the SSC (Vocational) for its full-time students and trade training for part-time students on a fee-paying basis in the afternoons/evenings and weekends. The main difference between VTIs and TTCs is that TTCs are larger institutions, can offer more trades, and are better equipped—in part because of investments by IDA in a vocational training projects in the early 1980s.

70. Another difference is that all regular students receive a stipend (compared with two-thirds at VTIs), and the average stipend is twice that at VTIs (Tk 200/mo. vs Tk. 100/mo.) Training is free to the regular trainees, who receive free accommodation and Tk 200/month stipend. During the internship trainees receive Tk. 450/month income.

71. In the early 1990s the TTCs operated at only about two thirds of capacity and only trade qualifications were taught. As a result of increased demand because of the introduction of SSC (Vocational), basic trades and evening classes, the TTCs now operate at virtually 100 percent of capacity. Enrollments in basic trades are sometimes double that in formal programs (e.g., the Rajshahi TTC).

---

43 *Ibid.*, Table 26.10.

72. According to the BMET TTCs are conventional vocational training institutions, but efforts are underway to introduce new specializations, such as garment making and computer technology. Applications for admission are double or triple the available places. Employment rates for graduates are reported by BMET to be about 60—65 percent, which would appear to be higher than that of VTIs, and 95 percent in the Institute of Marine Technology.

73. The TTC in Comilla reported that its recurrent cost per student was about Tk 50—60,000. This is more than 25 times the cost of a student in general secondary education. The high costs are attributable to the relatively low number of students per teacher; costs of operating equipment, including repairs and consumable supplies; and the provision of stipends for all students and hostel accommodation for many of the students.

74. TTCs suffer from many of the same problems as VTIs. There is a lack of up-to-date technology (i.e., much of the equipment tends to be out of date. More modern equipment—such as computers—are in insufficient supply.) In addition, the institutions tend to work in relative isolation from local labor markets. No industrial advisory committees exist, either at local, district or national levels.

75. Twelve additional TTCs are being constructed, including one for women and one for aboriginal populations in the Chittagong Hill Tracts. The target is an annual output of 8-9,000 graduates from regular programs.

#### G. MINISTRY OF YOUTH AND SPORTS

76. The Department of Youth within the Ministry of Youth and Sports provides training leading to self-employment for people in the age group 15-30 years. Up to June 1997 about 630,000 youth had received training in different trades. Out of those trained nearly 60 percent took up self-employment projects, the majority with financial assistance provided through the Ministry.

77. At present the Ministry has 208 training centers distributed as follows:

**Table A-6 : Training Programs of the Ministry of Youth and Sports**

Type of Center	Duration	Number of Centers*
Youth Training Centers (livestock, poultry and pisciculture)	3 months	21
Pisciculture Training Cultures	1 month	64
Technical Training Centers	4 months	5
Secretarial Training Centers	1 year	5
Zonal Resources Training Centers	Various	4
Steno-typing Training Centers	6 months	32
Block Batik Printing Training Centers	3 months	9
Dress-making Training Centers	4 months	68

\*Note: Some premises encompass more than one training center. For example, outside Rajshahi one house occupied both a Garments and Dress-Making Training Center and a Stenographic Training Center.

Source: Department of Youth Development, "The Programmes of the Department of Youth Development at a Glance," no date.

78. In addition, the Department provides mobile training courses' up to one months in duration, in which the instructor organizes courses at the local level in borrowed premises (madrasah, school, house) with the help of extension agents and other resource persons. Entry requirements for mobile training are Class V. In the Rajshahi area, over 1200 persons have been trained thus far by mobile methods.

79. The head office of the Department of Youth is organized around three main projects.

- The **Thana Resource Development and Employment Program (TRDEP)** aims at poverty alleviation through provision of training and micro-credit in rural areas of 32 Thanas. The program makes

progressively larger loans to family-based groups of at least five members each. Loans are Tk 3,000 the first year; Tk 4,000 the second year; and Tk. 5,000 the third year. If the group is successful after three years, it can qualify for an entrepreneurship loan of Tk. 10-30,000. Interest rates are currently 16 percent on the declining balance and reportedly 99 percent of the loans are repaid in full. Local "group animators" form groups, give advice and arrange non-formal training in small business operation. Branch managers in the Thana supervise the animators, and in turn are supervised by four zonal managers. The Asian Development Bank has supported the project with a micro-credit revolving fund. The project initially aimed at reaching 250,000 target beneficiaries, but reportedly has already exceeded the target six months before project completion.

- The **Youth Training and Self-Employment Project** covers 470 thanas throughout the country, including 10 thanas in metropolitan areas. The project is based on the Commonwealth Youth Forum in India, is entirely government financed, and has two aspects. First training is imparted to youth for 3-4 months in such subjects as typewriting and computer training. Then small loans are arranged for trainees to engage in self-employment. Since its inception 210,000 youth have been trained under the project, including 92,000 in 1996-7. About 40 percent of the youth (35,000) obtained credit following the training, and reportedly a total of 60 percent of the youth (64,000) became self-employed after the training in 1997.
- The main objective of the **Youth Training Center Project** is to train youth in livestock, poultry and pisciculture as a means of entry into self-employment. Non-formal training is provided for three months in 21 residential youth training centers (capacity = 100 trainees each, or 400 per annum based on four courses) on the practical aspects of animal and fish rearing. So far, 42,000 youth have been trained under the project, with an annual target of 9,600 trainees. Entry requires a minimum of Class VIII, but often trainees have HSC, and some even B.Sc. and master's degrees. Trainees are paid Tk 500/month for food plus free accommodation during the training. The centers receive more than 300-400 applications—solicited in part through advertisements in national newspapers—for each 100 places. Entrants are selected at the Deputy Director's (Thana) office. Trainers are typically graduates of the Bangladesh Agriculture University. The training program is reportedly innovative, involving about 10 visits to villages for interviews with farmers and extension agents, and motivational presentations by former trainees who have established successful small businesses. The Ministry claims that 72 percent of trainees enter into self-employment with incomes of Tk 5,000-Tk. 50,000 per month. About 40 percent of the trainees receive loans from the Ministry through District Committees based on business and project proposals. The project is supported by a loan from the Asian Development Bank. Twenty-four additional centers are under construction.

80. Objectives of the Fifth Five Year Plan<sup>44</sup> are to encourage youth towards gainful self-employment through motivation, training, micro-credit and other inputs. Increased women's participation would be sought with a target of at least 50 percent participation in all skill development and training programs. Expanded facilities would be provided for improving working skills, including suitable training in technical, vocational and professional fields. Skill training programs include increasing the number of residential training centers in livestock, poultry and pisciculture from 21 centers at present to 64 centers (one in each district). Annual training capacity will be increased from 13,300 to 40,200. In addition, a block and batik printing center will be established in all districts, particularly for female participants. Mobile training for short duration will be organized at union and thana levels. Entrepreneurship training will be imparted to 50,000 youth during the plan period, and about one million youth are expected to be trained in different fields. The total outlay for youth development is Tk 6.3 million including Tk. 4 million in spill-over projects. Skill development would receive Tk. 250 million for new projects

44 *Ibid.*, Sections 23.33-22.35.

81. The projects of the Ministry of Youth make important claims of success, in terms of throughput of trainees, successful establishment of self-employment and high rates of repayment of loans. These should be: (a) verified through an independent evaluation, (b) the amount of secondary employment generation<sup>45</sup> be ascertained, and (c) rates of return calculated on the investment in training and credit provision. A favorable evaluation would provide a strong basis for additional investment in this highly important endeavor.

## H. MINISTRY OF AGRICULTURE

82. Agricultural education is provided at various levels in the country, as follows:

**Table A-7: Agriculture Education and Training Institutions**

Level and Type	Qualification Granted	Duration (years)	Number of Institutions	Of which Private
Agriculture University	Degree & Post Graduate	4 +	2	0
Agriculture College	Degree	2, 3	6	2
Agriculture Training Institutes (ATIs)	Diploma	3	12	0

*Source: Ministry of Agriculture*

83. According to the Ministry of Agriculture there are no certificate courses (one or two years) in the ATIs. Also, little vocational training exists in agriculture. Previously a few experimental courses in agricultural mechanics were given on the repair of power tillers, but this has not been repeated.

84. The bulk of agricultural training for middle level operatives is given through the ATIs. At present about 7,000 students are being trained annually in diploma courses of three years' duration. However, not all the time is spent in residence. In 1992 and 1993 the Technical Education Board and the Ministry of Agriculture designed a program for training block supervisors and other grassroots level workers in agriculture using distance means. Entry level is SSC (Science). Each year the trainee spends six months in the ATI and the rest of the year attending classes at the thana level two times per month.

85. In addition, in 1994 the Government introduced agricultural as a comprehensive subject in the curriculum of secondary schools in Grades 6-10.

## I. OTHER MINISTRIES AND NON-GOVERNMENT PROVIDERS INVOLVED IN TVET

86. The Ministry of Women's Affairs actively promotes women's development through skill development and training programs. The major areas of training are on poultry, dairy, livestock, food processing, plumbing, electronics and other selected nontraditional areas.<sup>46</sup>

87. The Ministry of Social Welfare seeks to give women opportunities to realize their potential and establish themselves in society through such means as education, training and employment.

88. The Bangladesh Small and Cottage Industries Corporation (BSCIC), a semi autonomous corporation under the Ministry of Industries, gives training in trades and handicrafts through its five VTCs outside Dhaka. Most of the courses are four to six months in length in women's crafts, handicrafts and industrial

<sup>45</sup> The reader of "Success Stories of Self-Employed Youths, '97," Department of Youth Development is struck immediately by the employment creation generated by those who have established successful livestock, fish farming and dress-making businesses. So far these highly important secondary effects of the youth projects has not been quantified. Another impression from the same document is that the most successful graduates are those with relatively high levels of prior education, HSC and above, and many come from families with relatively high incomes.

<sup>46</sup> This section comes from the ADB report, "Vocational Training for the People's Republic of Bangladesh," September 25, 1995, pages 77-82

crafts. In addition, the Small Cottage Industries Training Institute in Dhaka gives courses to persons engaged in developing small and cottage industries.

89. The Bangladesh Industrial Technical Assistance Center (BITAC) gives initial training for new entrants in technical careers and advanced training for employed workers to boost industrial productivity. Programs are 14 weeks in length and are conducted three times a year. About 300 persons are trained per year, about a third from the private sector.

90. Non-government Vocational Training. Over 100 non-government organizations have taken initiatives in the field of vocational training. Most programs are directed at the poor. The Association of Development Agencies in Bangladesh (ADAB) coordinates the activities of non-government organizations and the Association of Private Non-Profit Trade Schools (APNTS).<sup>47</sup> The Department of Technical Education of the Ministry of Education recognizes about 160 non-profit vocational schools and makes a token contribution (averaging about Tk. 7,000) for their operation. The schools are small, averaging only 25 trainees each (total capacity = 3,600). Courses are typically from four to six months and the most popular trades reportedly were tailoring/sewing, embroidery, bamboo/cane works for women; electrical, welding, radio/tv, refrigeration and carpentry for men.

91. A large number of private trade schools also exists with the aim of creating profits. In the early 90s it was estimated that over 200 such trade schools existed; no estimates have been made of the capacity of the institutions. The growth of private trade schools is primarily connected to large-scale export of skilled and semi-skilled manpower, primarily to the Middle East. These institutions offer non-formal and non-standard training of short duration. In general they do not have highly qualified facilities or instructors. They are not required to register or be recognized by any training agency.

#### J. UNDERPRIVILEGED CHILDREN'S EDUCATION PROGRAM (UCEP)

92. UCEP, established in the early 1970s as a non-government organization, seeks to raise the living standards of poor urban children and their families. It focuses on the target group of working street children, including domestic servants, vendors, hawkers, factory workers, shop assistants, fire wood collectors or rag pickers, porters and day laborers. UCEP believes that only education, and particularly skill development, can empower these children. Its vision is to "be a leading human resource development organization in providing cost-effective non-formal education, marketable skills training and employment promotion for urban poor working and distressed children and adolescents in Bangladesh."<sup>48</sup>

93. UCEP's program can be divided into three stages.

- The first stage is accelerated non-formal basic education starting at age 10 or 11. Under this program a student spends 2.5 hours per day in school for 270 days per year.<sup>49</sup> One grade is covered each 135 days, thus making basic education up to grade 8 possible in about four to four-and-a-half years. About half the graduates from the non-formal basic education program are admitted into vocational training.
- The second stage consists of fundamental skills training for 3.5 hours daily, which may vary in length as follows:
  - Para-trade training, six months of basic skills training in one of four trades; or
  - One to two years of fundamental skills training in one of fourteen different trades, of which one year is provided in the training institution. This institution-based training is followed by 3 months to one year of work experience on the shop floor that is governed by a UCEP-enterprise contract.
- The third stage is placement in gainful and sustainable employment, and follow-up on the job.

<sup>47</sup> *Ibid.*, p.79.

<sup>48</sup> "Underprivileged Children's Educational Programs (UCEP)-Bangladesh," 23 May 1998, UCEP, Dhaka.

<sup>49</sup> "The children can continue to work and earn while they attend school. This greatly adds to the motivation of parents to send them to UCEP schools." (As noted in M. Haque, *Human Development in South Asia*, 1998, section 9.6)

94. UCEP has 30 general schools for non-formal basic education working on three shifts per day in four major cities of Bangladesh. Total enrollments were 18,300 in 1997. Skill training is given in three training institutions working on two shifts each, training a total of 1,400 trainees, of whom one-third were female. The para-trade program, which started only recently, enrolls about 160 students at a time, almost half of whom are female.

95. UCEP is financed mainly by external donor contributions from Denmark, Norway, the UK and Switzerland.

96. UCEP and its skill training programs are characterized as follows:

- An Industrial Advisory Council helps design appropriate curricula, provides advice on labor market trends, provides on-the-job training for UCEP trainees and helps find employment for graduates after training.
- Employment Committees are established by sector to look intensively at UCEP training programs; UCEP, in turn, assiduously attempts to implement the recommendations of the Committees.
- The Job Placement and Employment Support Service office of UCEP "...keeps close links with the labor market through direct contact with potential employers and industrialists, collects related information through continuous labor market survey and performs labor market needs analysis."<sup>50</sup>
- Based on feedback from employers, UCEP attempts to provide trainees with: (a) basic literacy and communication skills; (b) fundamental (but not specialized) occupational skills; and (c) proper attitudes to work.
- Trainees are closely supervised by instructors, who have been trained by UCEP in its training methods; instructors in turn are carefully supervised by UCEP administration and given continuous feedback on their performance.
- The content of each lesson is highly structured. Instructors spend time outside class preparing daily lesson plans; job sheets are provided to students illustrating the objectives, steps and a checklist for each exercise. Practice (80 percent of instructional time) is emphasized over theory (20 percent of the time).
- Instruction is individualized in the sense that trainees have to perform tasks individually, not merely observe demonstrations by instructors as in other training institutions.
- Considerable attention is devoted to development of proper work attitudes on the part of trainees. Trainees are counseled on conditions in the workplace.<sup>51</sup>
- Student performance is evaluated continuously, rather than leaving assessment to the end of the course;
- Training is made as realistic as possible to actual conditions on the shop floor; in part, this is aided by doing actual work for customers (e.g., rewiring motors for commercial enterprises).
- Trainees work in industry after completion of one year of fundamental training to perfect and develop their skills in the workplace. These arrangements are governed by a flexible contract and trainees are paid an average of Tk. 450/month during training.
- Instructors are required to visit enterprises frequently to supervise trainees and graduates.
- UCEP has a rigorous tracer system to follow up on graduates in the labor market.<sup>52</sup>

50 Ahmadullah Mia, UCEP Director, "Impact of UCEP on Skilled Manpower Development, *Independent*, 29 August 1997, p.6.

51 "UCEP provides not only skill training, but also gives emphasis on the development of proper attitude to work and a socialization process that prepare the trainees to have the best adjustment to organizational situation. The trainees are given comprehensive orientation that they will have to cope with following the training. Regular counseling sessions help trainees acquire proper attitude to work and other virtues including discipline, sincerity, attentiveness, proper behavior with colleagues and supervisors, punctuality and loyalty to the organization. UCEP has learnt through its feedback mechanism that these virtues are commonly desired by the employers, as much as the skills, and UCEP has designed its training programme accordingly." *Ibid.*

52 "UCEP has a regular monitoring system of employment together with data on earnings level, job characteristics and mobility, etc. This system is another feedback arrangement intended to promote efficiency of skills training programme." *Ibid.*, p.7.

97. UCEP has extraordinarily high completion and employment rates for its graduates, both averaging about 95 percent. This means that nine of every ten entrants are effectively employed. UCEP estimates that it takes eight months of employment for the graduate's income to match the training costs (a proxy for cost recovery); and one year to recover the costs of one year of training. This performance contrasts with the public sector, as follows:

**Table A-8: Comparison of Success Rates: UCEP and Public Training Institutions**

Institution	Completion Rate (% of initial entrants who complete the course)	Examination Pass Rate (% of those taking the final exam who pass)	Employment Rate of Graduates (% employed within 6 months)	Overall Success Rate (Col.2 x Col.3 x Col. 4)
(1)	(2)	(3)	(4)	(5)
Govt. Voc. Inst. <sup>53</sup>	80	70	40-50	25
UCEP	95	100	95	90

98. The cost per student of UCEP training is approximately Tk.14,000 per year, compared with about Tk. 20-40,000 in VTIs and Tk. 60,000 in TTCs.<sup>54</sup>

99. UCEP attributes its cost-effectiveness to the following key factors:

- Focus on the proper target group, i.e., those with "blue collar working aspirations", those who intend to enter the labor force after training as semi-skilled workers.
- UCEP's continuous linkages with industry,<sup>55</sup> which ensure that trainees are trained in the knowledge, skills and attitudes sought by employers, and also that employers are aware of the competencies of UCEP graduates.
- The focus on acquisition of skills and competencies through highly structured, supervised individual "hands-on" instruction (rather than being driven by credentials and certificates).
- Intensive work by instructors, both in the class, in outside preparations and in visiting enterprises (as opposed to high rates of absenteeism in many public training institutions).
- Proper in-service training and supervision of instructors by UCEP management.
- Shorter and more intensive in-institution training programs (one year maximum compared with two years for TTCs/VTIs), and higher number of students per instructor (16:1, compared with 10 or 12:1 in public training institutions).
- Block release work on the shop floor, supervised by instructors, as an integral part of the training program.
- Rigorous follow-up of each graduate in terms of employment, earnings and performance on the job.

100. UCEP cites the following problems in its operations:

- High staff turnover. Senior instructors are highly in demand in the marketplace and can command wages well above those UCEP can afford to offer.
- Staff retraining. Replacement of instructors is difficult because current instructor training programs tend not to impart the necessary practical skills. More importantly, it is difficult to find instructors with the proper exposure to shop floor conditions and with proper attitudes. These must be developed through in-service training at UCEP, which is time-consuming.

53 An average of VTIs and TTCs.

54 The VTI east of Dhaka said its operating costs per student were Tk. 40,000; the VTI in Rajshahi district (Chapai Nawab) claimed its costs were Tk 17,200 per student. The officers of the TTC in Comilla said its recurrent costs per student were between Tk. 50-60,000.

55 UCEP calls this its "dynamic linkage" and stresses that it must be continuous, throughout the life of the training program, not a "one-off" exercise.

- Resource constraints make it difficult to expand service offerings to meet the needs.
- Industrial cooperation is labor-intensive and difficult. Many employers are reluctant to participate and contribute, particularly "first generation" employers to whom labor is simply an input to be purchased at the lowest possible cost. "Second generation" employers, particularly those in competitive industries, are beginning to recognize the importance of labor productivity to profitability, and, in turn, the linkage between productivity and skills.
- Labor unions have resisted employment of UCEP graduates; little success has been achieved with state-owned enterprises.
- Government does not provide tax incentives for private contributions to UCEP.

101. The margin of benefits of UCEP training compared with public training institutions is so wide that ways must be explored to replicate the programs over a wider scale. While desirable, however, replication of this highly successful model would be difficult.

- As stated above, UCEP finds it difficult to establish and maintain productive relationships with enterprises. This would be exponentially more difficult to do on a large scale, in part because interested employers are in the minority and UCEP has already made contacts with those.
- UCEP finds it difficult to recruit the right kind of instructors, and, once retrained, the attraction of higher salaries in enterprises leads to high rates of turnover. The UCEP program is labor intensive and depends on careful in-service training of instructors, especially to compensate for deficiencies in practical training within the formal system of technical teacher training, to provide experience on the shop floor and to inculcate proper attitudes to training.
- Moreover, UCEP draws most of its students from its own non-formal basic education programs. These graduates are well prepared to enter into UCEP vocational training and already have much of the self-discipline required for success. Drawing students from other sources would probably reduce UCEP success rates.
- No small measure of the success of UCEP can be attributed to its private management that can take decisions locally based on its own labor market surveys. It is the opposite of the current centralized pattern of public training institutions. In other words, private management seems essential for the success of the UCEP program, and it is not clear that the Government would be willing to "privatize" any of the existing training institutions.

102. These are some of the difficulties that must be overcome to replicate the UCEP model. Still, the model for training exists and should be tried in more locations, as a basis for expansion on a wider scale.

## K. TECHNICAL VOCATIONAL EDUCATION AND TRAINING (TVET)

### *Plans and Policies Fifth Five Year Plan (1997-2002)*

103. **Objectives.** In view of the fact that the technological base is too weak at present to produce sufficient technically trained manpower, the Fifth Plan calls for expansion of capacity and diversification of course offerings in line with emerging technologies. The main objectives of the Plan are:<sup>56</sup>

- To increase the present enrollment capacity of the technical and vocational institutions from 3.3 percent of the student population at the secondary level to around 20 per cent by the year 2002.
- To diversify technical and vocational education to meet manpower needs in areas of emerging technologies, such as information, genetic engineering, marine biology, bio-technologies, mining, instrumentation, electro-medical technologies, aviation.
- To strengthen the practical training basis of technical education.
- To encourage private involvement and initiatives in delivery of TVET programs.
- To create an adequate data base for research, labor market analysis and policy formulation in TVET.

<sup>56</sup> Section 20.13.2, Technical Education, *The Fifth Five Year Plan: 1997-2002*, Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.

- To strengthen staff development programs at the Technical Teacher Training College and initiate post-graduate programs in technical teaching.

104. The projections of numbers of institutions and enrollments at various levels are shown below:<sup>57</sup>

**Table A-9: Planned Institutions and Enrollments**

Institutes	1997		2002	
	No. Institutes	No. Students	No. Institutes	No. Students
<b>1. Degree</b>				
Textile	1	50	2	400
Leather	1	25	2	100
<b>2. Teacher Training</b>				
Technical Teacher Training College (TTTC)	1	120	2	400
Vocational Teacher Training Institute (VTTI)	1	120	2	400
<b>3. Diploma Level — Polytechnic Institutes</b>				
Government	20	4,500	68	20,000
Non-Government	0	0	7	
<b>4. Certificate Level</b>				
Vocational Training Institutes (VTIs)- Govt.	51	2,600	64	43,800
VTIs — Private	0	0	500	
<b>5. Vocational Courses for Secondary Schools</b>				
Basic Trades	51*	12,800	64*	30,000
SSC (Vocational)	250	14,500	500	30,000
Dakhil (Vocational)	-	-	250	15,000
HSC (Vocational)			200	8,000

Source Fifth Five Year Plan, Table 20.7, section 20.13.3

\* In existing VTIs

105. As shown in the above table, major expansion is envisaged in the number and capacity of training institutions. At the degree level, a new textile and a new leather institute will be established. The number of teacher training institutions would be doubled to four. The number of government polytechnic institutes will be increased from 20 to 68. Thirteen new VTIs will be established. In addition, vocational courses will be established in secondary schools, using VTI facilities, for a total of 83,000 students per annum.

106. The Fifth Plan budgets Tk. 5.1 billion for technical education, or 3.9 percent of the total for education as a whole.<sup>58</sup> This includes Tk. 2.7 billion for new projects in technical education, or 2.6 percent of all new projects in the sector. It is difficult to see how the major expansion plans will be accomplished with these limited resources.

107. The Fifth Plan notes frankly that TVET at present operates in isolation from the local communities in which they are placed. In order to establish better linkages with the local economy, NGOs, employers and local governments, the Plan advocates the following measures<sup>59</sup>:

- Local bodies should be associated with the management of TVET institutions.
- Public institutions should draw inputs and content for their training activities from the "work ambits in the surrounding areas".

57 From Table 20.7, *op. cit.*

58 From Table 20.8, *op. cit.*

59 Section 20.13.7, *op. cit.*

- Operation of technical training institutions on two shifts so as to extend coverage of basic trade courses for all students in secondary schools.
- Use available training facilities for short courses for out-of-school youth and workers in high-demand areas such as business management, design engineering, hotel management and catering, computer technology, farm technology, and instrumentation.
- Extend TVET programs through the Bangladesh Open University.
- Introduction of "sandwich" programs, alternating training with internships in industry.

**108. Comments.**

- The justification for the expansion of facilities is mainly a response to political and social demand, and an assumed demand by employers for skilled employees. However, employment rates from existing institutions are relatively low, about half to two-thirds.
- No explanation is given about incentives to the private sector to establish private (non-government) training institutions. Technical/vocational education is expensive, and private providers tend to invest in general rather than technical skills.
- The justification for establishment of new institutions, particular at degree and in teacher training, is weak given the low utilization rates for existing institutions. Operation on double shifts would be much less expensive than establishment of new institutions.

***National Education Policy, 1998***

109. Referring to the fact that only a minority of workers or mid-level supervisors have had training for their jobs and the alleged "dangerous obstruction" of production capability owing to lack or imbalances in skill training, the NEP<sup>60</sup> recommends major expansion of TVET services. The NEP makes the following recommendations:

**110. Linkages.**

- Greater linkages with employers should be sought by: (a) having industrial representation on the academic councils of each training institution; (b) organizing sandwich training programs; (c) rental of training facilities to private enterprises and use of the funds at the institution; and (d) incorporation of employers' views in national policy making.

**111. Policy and Administration.**

- A self-governing and self-financing Vocational & Technical Education Council should be established to do research, coordinate, integrate, set standards and make policy among the different Ministries, Directorates, NGOs and private entrepreneurs involved in skilled manpower development. Research cells should be established in every training institution.
- Within the Ministry of Education DTE should be made a separate division reporting directly to the Minister.

**112. Structure.**

- The length of polytechnic education (diploma level) should be increased from three years of institutional instruction to three and a half years and the industrial internship from two months to six months;
- The curricula of all secondary, higher secondary—including madrasah—be converted into vocational curricula in phases;

**113. Clientele.**

- Short training programs should be introduced to keep those in the job market up-to-date with latest developments.

---

60 This summary is taken from Chapter 6, Technical and Vocational Education, National Education Policy, June, 1998.

- Non-formal training should be provided to school dropouts at all levels in the basic trades by using the facilities of existing training institutions.

**114. Programs.**

- Training within polytechnics should be made multipurpose to prepare for a varied and changing job market, and monotronics and other polytechnics should be diversified by introducing a full range of diploma courses. Within this context, consideration should be given to introduction of fields related to increasing the nutritional status of the population, including livestock, horticulture, veterinary science and pisciculture.
- Master craftsmen should be created through a sandwich program alternating between industrial work experience and formal training.
- Entrepreneurship and creation of self-employment should be stressed in all vocational and technical syllabuses; soft loans should be provided for establishment of micro-enterprises by graduates.

**115. Transferability.**

- A credit system of academic accounting together with a cumulative grade-point average should be introduced in place of the present division and merit lists; graduates from one level should be eligible for entry to the next higher level (e.g., diploma holders in engineering should be eligible for admission to higher education) through credit transfers.
- At least one fourth of the admission places in polytechnics should be reserved for graduates from vocational courses at the secondary level.

**116. Inputs.**

- Teacher training and practical industrial experience should be made mandatory for all teachers at all levels; TTTC and VTTI should be expanded to provide this training, and the facilities of the BOU should be used for distance teacher training.
- Arrangements should be made for the compilation, translation and publication of sufficient Bangla language books for TVET.

**117. Finance.**

- The major portion of the education budget should be shifted towards TVET; expenditures should be shared with industry; students should bear half of the recurrent expenditures at secondary and college levels coupled with educational loans and subsidies.
- A fund should be established for providing lump-sum grants to training institutions for expansion and quality improvements in TVET.

***Issues and Evaluation of the NEP***

118. The NEP was drawn up by specialists without reference to resources required to implement the measures proposed, or other considerations of feasibility. In terms of TVET it was composed only of representatives of the Ministry of Education and cannot be considered a comprehensive document. It is decidedly expansionist, calling for vocational education to be added to the curricula of all middle and higher secondary schools, and for TVET to receive "a major portion of the education budget". It would add to the costs of polytechnic education by lengthening rather than focusing the programs and it would reinforce the already pronounced upward mobility of technical-vocational students rather than preparation for immediate entry to the workforce.

119. Still, the NEP has much to recommend it. It stresses the importance of linkages with enterprises; program diversification and provision of entrepreneurship training; service to new clientele with upgrading programs for those with jobs and initial training for out-of-school youth; requiring instructors to have practical work experience; and beneficiary financing of TVET by students and enterprises.

## L. PREVIOUS EXTERNAL ASSISTANCE, ANALYSES AND RECOMMENDATIONS ON TVET

### *External Assistance for TVET*

120. Since independence four external agencies have provided the bulk of external assistance for TVET. SIDA financed three projects (in 1976, 1981 and 1986) for a total of US\$ 16 million in grant assistance to support VTIs and the Vocational Teacher Training Institute. The UNDP has financed six grant technical assistance projects executed through the International Labor Office (ILO) for \$7.8 million, mainly for TTCs and the BMET. The World Bank financed a \$16.6 million project in 1979 through IDA to assist mainly TTCs. The Asian Development Bank financed a Rural Training Project under the Ministry of Youth (See Section G of this Annex) for \$16.3 million in 1990.

121. Since 1990 there have been no additional investment projects to support the sector. The only technical assistance projects in the '90s were a UNDP/ILO project for training and employment in the garment industry (1991; \$1.8 million) and on national system training reform (1993; \$0.7 million). From 1993-95 the ADB financed preparation of a new vocational training project. The proposal<sup>61</sup> called for an investment of about \$60 million for: (a) strengthening TTCs including public and private TTCs, a central foreman training center, a TTC for women, mobile training, establishment of a training fund and development of a labor market and management information system (\$45 million net of contingencies); (b) entrepreneurship development associated with TTCs, including entrepreneurship training, provision of micro-credit and establishment of production wings at TTCs (\$4 million, net); and (c) policy and administrative reform, including establishment of a national skills development board, and assistance to strengthen the BMET (\$2.8 million, net). Owing to a change of lending priorities, the ADB never followed through with the project and it does not appear in its current medium-term lending program.

### *World Bank Review of TVET, 1990* <sup>62</sup>

122. **Background.** The percentage of the labor force in industry, 6 percent, is one of the lowest in Asia. Similarly, females comprise only 7 percent of the labor force, one of the lowest rates in the world.<sup>63</sup> The population is undernourished: the per capital calories per day is the lowest in the region (1804 calories in 1985; and 36 grams of protein/day), and has declined in the last 20 years.<sup>64</sup>

123. The main providers of formal VTE are the MOE and the MOL. The system under the MOE includes four engineering colleges, 17 polytechnics, 51 vocational institutes (VTIs), 16 commercial institutes and several specialized colleges. Combined enrollment was about 20,000 students in 1986. The MOL supports 11 technical training centers (TTCs) that enrolled about 3000 students in 1986. In addition the Ministry of Youth and Development offers VTE courses to out of school youth. The Ministry of Social Welfare and Women's Affairs runs production-cum-training centers. The Ministry of Local Government and Rural Development and Cooperatives runs short training programs in agriculture. About 30 NGO-operated schools give school-based training, with annual enrollments of about 2000 students. The national apprenticeship scheme registered less than 300 apprentices in 1988.<sup>65</sup>

124. **Expenditures:** In 1987-89 VTE was allocated the third largest share (average 17.7 percent) of the budget for education, after primary and secondary education.

125. Numbers in parentheses in the following tables refer to pages.

61 Final Report, September 25, 1995, Utah State University for the Asian Development Bank, TA No. 2130-BAN.

62 *Bangladesh: Vocational and Technical Education Review*, Washington, The World Bank, July 1990.

63 *Ibid.*, pp. 2-3.

64 *Ibid.*, pp. 3-4.

65 *Ibid.*, pp. xi, xii.

### Policy, Planning and Administration

Problems	Recommendations
<ul style="list-style-type: none"> <li>The National Council for Skill Development and Training (NCSDT)—a high level inter-ministerial committee—is supposed to provide macro-level policy direction, but is inactive at present. (xii) It is not a statutory body and has not met since 1984 (8)</li> </ul>	<ul style="list-style-type: none"> <li>Reconstitute and revitalize the NCSDT, including reporting to an organization with the power and linkages to coordinate human resource development. (xvii)</li> </ul>
<ul style="list-style-type: none"> <li>The Bangladesh Technical Education Board provides valuable services to curriculum development and testing. (xvii) The BTEB is a small, relatively efficient organization of about 14 staff. It is a unique, self-supporting organization that generates income from institutional accreditation and student examination fees. (9)</li> </ul>	<ul style="list-style-type: none"> <li>The capacity of the Board should be expanded to include a broader range of quality control activities in school accreditation, examinations, certification, research and curriculum development, but should not expand beyond its well-defined scope of services (quality control, research and student performance (61).</li> </ul>
<ul style="list-style-type: none"> <li>The system is highly centralized: national level administrative input into both TTCs and VTIs is significant, including curricula and materials. Equipment; budgets and financial procedures, staffing criteria and selections; student selection criteria; teaching methods, standards and examination and certification of graduates. Locals mainly carry out national policies and provide monitoring and supervision. (10)</li> </ul>	<ul style="list-style-type: none"> <li>Provide greater authority to local administrators to target occupations in demand locally and manage their own resources. Decentralize some authority to local schools that have the willingness and capacity to demonstrate more creative and effective approaches to VTE service delivery (60).</li> <li>Establish pilot efforts at transferring responsibility for administration of one or more selected VTIs and TTCs to responsible agricultural or industrial organizations (37).</li> <li>As part of decentralization, strengthen training of administrators of VTE, including one year senior administrator training program and in-service training of all administrators every five years. (58, 61)</li> </ul>

### External Efficiency and Relevance of Teaching Programs

Problems	Recommendations
<ul style="list-style-type: none"> <li>Nationally-developed curricula are fairly well managed and designed, but are narrow in scope and restrictive to potential employment of students. (xviii-xix)</li> <li>Employers are often critical of the courses being offered in both the VTIs and TTCs; curricula are inadequate to the world of work; industrial organizations have expressed frustration in their attempts to provide advice and input to the system. (17)</li> <li>Curricula are not designed to teach work attitudes, employee/employer relationships. (17)</li> <li>The scope of course offerings in all of the training institutes is unnecessarily restricted (62)</li> </ul>	<ul style="list-style-type: none"> <li>Each school should conduct an occupational analysis of the employability area of that school to determine specific skills needed by firms in the area; adopt a more targeted curriculum for the local area (xix)</li> <li>Establish high level national advisory committee composed of industrialists (68)</li> <li>Require each VTE school to have an active industry advisory committee.</li> <li>Need to consider inclusion of affective objectives and training in future curricula (17)</li> <li>Adapt rural VTI curricula to the predominantly agricultural labor market. (56)</li> <li>Curriculum selection, modification and validations should be more within the purview of the training institutions, i.e., more flexibility should be given to local schools to initiate programs of instruction that meet local needs. (63, 70)</li> </ul>

Continued

Continued Table : External Efficiency and Relevance of Teaching Program

Problems	Recommendations
<ul style="list-style-type: none"> <li>• Low placement rate of students: enrolled students currently have about a 30 percent rate of employment in fields related to their training.(xiii) The main problem appears to be the lack of a clear labor market connection. (p. xv)</li> <li>• Lack of interest by employers in offering employment to graduates because the training is not related to the needs of employers. (xiii)</li> </ul>	<ul style="list-style-type: none"> <li>• Each training institute should conduct an occupational analysis of employment in the area of the institute. (70)</li> <li>• Establish a task force to investigate options for improved employment opportunities in VTE. (xvii, 70)</li> <li>• Place an embargo on new construction of formal VTE, except upon evidence of employer demands that cannot be met through existing VTE, correct targeting of student intake and community cost-sharing. (xviii)</li> </ul>
<ul style="list-style-type: none"> <li>• Rates of return were -4.5 percent (TTCs) and 1.3 percent (VTIs). (xiv) More investments in the VTI and TTC systems, as they currently operate, would not be wise (xix) However, reasonable improvement in two key factors would make the rate of return positive in the 8-10 percent range: (a) cutting the duration of courses in half and (b) raising the placement rate from 30 -50 percent (xiv)</li> </ul>	<ul style="list-style-type: none"> <li>• Consider eliminating a substantial proportion of the schools unless better articulation can be found between the supply and demand for trained graduates It would not be useful to continue to provide failure experiences for a large age of the graduates. (59)</li> <li>• Refrain from investments to build up the existing formal VTE system unless major reforms can be made to the system.</li> <li>• Cut duration of courses in half (See footnotes).</li> <li>• Raise the placement rate from 30 percent to 50 percent. (xiv)</li> </ul>
<ul style="list-style-type: none"> <li>• Non-formal VTE: NFE is better in targeting the right people to train (Grade 8 or less) and in holding the duration of training to less than 2 years (xvi) The non-formal delivery mode provides a modest hope for more successful VTE programs for the future (54)</li> <li>• A substantial proportion of the non-formal VTE programs in Bangladesh were started without sufficient evidence of employer demand. (xv)</li> <li>• The NF VTE programs do not comprise a large delivery system (i.e., no more than 20,000 which is far short of demand); programs are too small to achieve economies of scale. (xvi)</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage the private school movement to grow and prosper; minimize Government input to, and control of private, schools Within this context, the MOE should authorize and finance the BTEB to establish and manage an accreditation program for all private and NGO sponsored VTE schools with a view to achieving uniform minimum standards. (xix, 62, 70)</li> <li>• Provide financial support and incentives for expansion of NF TVE on an experimental basis. (xx, 71)</li> <li>• Conduct an in-depth study of the potential and barriers to apprenticeship schemes in Bangladesh. (61).</li> </ul>
<ul style="list-style-type: none"> <li>• Equity: The participation of females in secondary, formal VTE is very limited, only 1—2 percent of available places. (xvi)</li> </ul>	<ul style="list-style-type: none"> <li>• The Government should promote greater female participation in VTE through improvements of facilities, training of teachers, modification of curricula and improvement of recruitment and job placement systems for females. (xviii)</li> <li>• Invest in infrastructure to provide girls and women with increased access to reformed VTE, including a model training institution in Dhaka. (xx, 70)</li> </ul>

### Quality and Effectiveness of Instruction

Problems	Recommendations
<ul style="list-style-type: none"> <li>Teachers have limited industrial experience. (xiii) Fewer than 30 percent of the VTI teachers have any related industrial experience compared with about two-thirds of the TTC instructors. (14)</li> </ul>	<ul style="list-style-type: none"> <li>Adopt policy that all VTE teachers must gain at least two years of related industrial experience either before or within the first five years of employment. After five years, teachers should participate in an ongoing industrial attachment program. (56)</li> </ul>
<ul style="list-style-type: none"> <li>Many institutes (VTIs) are under-equipped, or have outdated, obsolete and worn-out equipment. (11)</li> </ul>	
<ul style="list-style-type: none"> <li>Maintenance of the VTIs is less than adequate; there is little if any government funds available to support the maintenance of the institutes. The results are equally distressing with the TTCs and the Ministry of Public Works. (12)</li> </ul>	<ul style="list-style-type: none"> <li>Government should institute measures to ensure and finance high levels of maintenance and security. (70)</li> </ul>
<ul style="list-style-type: none"> <li>Skill testing and certification are well developed and managed; however, the program of services is limited and the scope of skills being tested is narrow. (63)</li> </ul>	<ul style="list-style-type: none"> <li>The examination process should be opened to any person who is willing to pay for the right to be examined for certification (63)</li> </ul>
<ul style="list-style-type: none"> <li>Pass rates on final examination conducted by BTEB typically range from 40–60 percent of persons attempting the examination. (20).</li> </ul>	<ul style="list-style-type: none"> <li>Better teacher training.</li> </ul>
<ul style="list-style-type: none"> <li>Targeting of Students: The wrong students are often enrolled in VTE (69), those with the wrong occupational intent. Two-thirds of entrants to VTIs had SSC or HSC (Grade 10 and grade 12) qualifications. Half the students in the same survey had no intent to seek employment in the area in which they were being trained. (xii) (17)</li> </ul>	<ul style="list-style-type: none"> <li>Modify entrance requirements to admit students with lower qualifications, but with clear intent to enter blue collar occupations. (69) (xviii)</li> </ul>

### Internal Efficiency

Problems	Recommendations
<ul style="list-style-type: none"> <li>Student to teacher ratios are 7.6:1 in TTCs and 12.2:1 in VTIs, lower than the 15-25:1 ratios found in other countries. (xiii) From an efficiency point of view, the TTCs would be considered overstaffed. (13) The teacher:student ratio is 1.8:1 in the VTTI (15) Also, the number of support staff in the schools is high (4.8:1 student in VTIs and 6:1 student in TTCs), (15)</li> </ul>	
<ul style="list-style-type: none"> <li>Only about half the design capacity of TTCs and VTIs is being used. (xiii) The VTTI operates with relatively low enrollments, about half its design capacity. (15)</li> </ul>	<ul style="list-style-type: none"> <li>Abandon the concept of establishing small capacity VTE institutions; require that VTE training be centralized into larger, more efficiently organized schools with residential capacity. (69)</li> </ul>
<ul style="list-style-type: none"> <li>High dropout rates: VTIs currently lose about 56 percent of their entering cohort by the time off</li> </ul>	

Continued

Continued Table . Internal Efficiency

Problems	Recommendations
<p>placement; TTCs lose 37 percent. (p.xii) VTIs have an output-input ratio of about .278 and .398 for TTCs. (19)</p> <ul style="list-style-type: none"> <li>• VTIs are typically small (about 80 enrollees) (xviii) and about 55 students per administrator. (10)</li> <li>• Course offerings are too long in duration (xiii) for the objectives and skills being taught. (xviii) In most cases, the current curricula could be taught in six-month programs rather than one year, which is the current practice. (xviii)</li> </ul>	<ul style="list-style-type: none"> <li>• Government should abandon the concept of establishing small capacity VTE schools in rural areas for training secondary students in industrial trades. VTE training should be centralized into larger, more efficiently organized schools with residential capacity. (xviii)</li> <li>• The length of NSS III and NSSII programs should be substantially reduced to meet the individual requirements of each type of skill being taught, and each program should require an industrial attachment of up to three additional months.<sup>66</sup> (xviii)</li> </ul>

### Financing and Cost Recovery

Problems	Recommendations
	<ul style="list-style-type: none"> <li>• Support innovative schemes which do not require heavy initial investments by establishing a "Skill Development Fund." (xx)</li> </ul>
<ul style="list-style-type: none"> <li>• Inadequate resources available and inadequate support for schools in the more remote areas. (25)</li> </ul>	<ul style="list-style-type: none"> <li>• Consolidate institutions into ones of larger size to concentrate resources and achieve economies of scale.</li> </ul>

### M. ASIAN DEVELOPMENT BANK VIEWS ABOUT VOCATIONAL TRAINING, 1995 VOCATIONAL TRAINING PROJECT FOR THE PEOPLE'S REPUBLIC OF BANGLADESH<sup>67,68</sup>

#### Policy, Planning and Administration

Problems	Recommendations
<p>1. National Council of Skills Development and Training (NCSDT) has not been an effective body for policy coordination and leadership in TVET. Reasons include excessively high membership, lack of effective support and lack of information collection about TVET. (108-9)</p>	<ul style="list-style-type: none"> <li>• Establish a National Skills Development Board (NSDB) as a full-time secretariat to the NCSDT under the Ministry of Labor and Manpower. The NSDB would collect labor market information, conduct research on training needs, establish uniform occupational standards and coordinate training in the public and private sectors. (149-152)</li> </ul>
<p>2. The Bureau of Manpower, Employment and Training (BMET) has not functioned adequately owing to lack of funds and staff to serve as a Secretariat to NCSDT, lack of capacity for labor market information, analysis,</p>	<ul style="list-style-type: none"> <li>• Strengthen the BMET through staff training in terms of improved data collection, supervision, monitoring and evaluation of training programs under its purview. (153)</li> </ul>

<sup>66</sup> Government reductions in the length of courses to two-six month modular programs (and consolidation of VTIs and TTC under the MOL) in 1982 resulted in teacher and student unrest. The decisions were reversed. (p.14)

<sup>67</sup> Final Report, September 25, 1995, Utah State University for the Asian Development Bank, TA No 2130-BAN.

<sup>68</sup> TTC = Technical Training Center; VTI = Vocational Training Institute

Continued Table . Policy, Planning and Administration

Problems	Recommendations
<p>training needs assessment and planning and evaluation of training, and lack of capacity to develop curricula and instructional materials. (109-110)</p> <p>3. Lack of research and development capacity in the Bangladesh Technical Education Board (BTEB); lack of employer and industrial representation in development of new teaching programs and in testing and certification systems (111-113).</p> <p>4. Overly centralized and rigid system in which the local training institutes have little or no authority to make decisions on type or length of teaching programs, instructor posts and staff selection. (110)</p>	<ul style="list-style-type: none"> <li>• Establish research unit in the BTEB to carry out research on labor market information, VTE institutional effectiveness, relevance of curricula to employers' needs, the planning of VTE operations. (153)</li> <li>• Delegation of powers and increased level of authority at the TTC level for greater flexibility and to related programs to local industry needs; Example of such programs: NTRAMS (National Training and Research Academy for Multilingual Shorthand), Bogra. (127)</li> </ul>

### External Efficiency, or Relevance to Priority Requirements

Problems	Recommendations
<p>1. Low employment rate for graduates in fields in which they are trained (estimated in 1993 at less than 30 percent of graduates finding employment in their area of training, i.e., net employment rate. (98) SIDA survey found 50 percent gross employment rate. (101) The main reason for low employment rates is isolation of institutes from employers. At present there is little or no dialogue between industrial employers and training authorities or institutions. (99) Few schools have active industrial advisory committees. (99) Formal professional contact between employers and training facility personnel has been very limited</p>	<ul style="list-style-type: none"> <li>• Establish a high-level national advisory committee (224)</li> <li>• Form Industry Advisory Councils at every institution</li> <li>• Put considerable energy into notifying potential employers of vocational graduates (131)</li> </ul>
<p>2. In the case of private training providers, the linkage has been much stronger than with public training providers. (120)</p>	<ul style="list-style-type: none"> <li>• Survey the capabilities, performance and needs of private vocational training centers.</li> <li>• Encourage parallel system of private sector vocational training centers (127) by reducing policy distortions that discourage private investment in skills development.</li> <li>• Establish recognition and accreditation procedures for private training institutions.</li> <li>• Encourage non-profit NGOs that have demonstrated quality training; provide technical and financial support to private sector training through curriculum development and instructor training and soft loans for facilities and equipment. (134)</li> </ul>

Continued

Continued Table : External Efficiency or Relevance to Priority Requirements

Problems	Recommendations
	<ul style="list-style-type: none"> <li>Form and support an "Association of Private Training Centers. (134)</li> </ul>
<p>3. Lack of adaptation to local job markets: Little or no occupational analysis of skills in demand in the local area. Excessive effort at "uniformity in curricula, admission requirements, teachers' qualifications, etc. (127)</p>	<ul style="list-style-type: none"> <li>Increased level of authority (autonomy) at institutional levels to adapt to local industry training needs (127) Example: NTRAMS in Bogra.</li> <li>Require each school to conduct an occupational analysis study in their respective employability areas to determine specific skill needs of firms. (225)</li> <li>Custom fit courses at the institution level to meet demands of local industries (129) and limit centralized curricula. (227)</li> <li>Permit training institutes to carry out commercial production or repair or subcontract work for outside parties to increase the practical nature of training and increase cost recovery (136)</li> <li>Establish sheltered workshops or business incubators. (137)</li> </ul>
<p>4. Inappropriate Clientele: Lack of intent on the part of graduates to enter the occupation. (91) Admission texts do not properly test the "occupational intent" of admission seekers. Trainees hope to gain further academic education for more socially acceptable employment than a TTC course gives. (95) Those who leave school before grade 8 are far more likely to be motivated to learn a trade, but are ineligible to do so through the TTCs or VTIs. Those who can do not wish to, and those who wish to are not allowed. (95) Courses have remained inaccessible to the urban poor because (i) entry requirements are too high and (ii) courses are too long (1-2 years) and cause the urban poor to stay away from remunerative work for too long (138)</p>	<ul style="list-style-type: none"> <li>Flexible curricula of shorter duration in selected trades (see internal efficiency, below) should have lower admission criteria. (131) [Also, make provision for literacy and numeracy acquisition for entrants with lesser qualifications]</li> <li>Add mobile training for rural areas. (133)</li> </ul>
<p>5. Lack of feedback mechanisms to change and adapt course offerings</p>	<ul style="list-style-type: none"> <li>Establish a labor market information system for continuous interaction with institutions so they can adjust their curricula to meet current and future demands. (129)</li> </ul>
<p>6. Small scale of the TTC/VTI system: A combined output of 5,000 graduates per year would supply about 2.5 percent of the current demand for skilled and semi-skilled labor (about 200,000 p.a.) and only 1.4 percent of the projected need of 350,000 skilled and semi-skilled workers between 2001-2006. (124)</p>	<ul style="list-style-type: none"> <li>Expand the system of private training.</li> </ul>

Continued

Continued Table · External Efficiency or Relevance to Priority Requirements

Problems	Recommendations
7. Low enrollment of females (7 percent in TTCs), even in civil drafting, radio and TV and electrical trades	<ul style="list-style-type: none"> <li>• Establish private training centers for women.</li> <li>• Establish a Skills Development Fund to support women and underprivileged students to obtain vocational training. (224)</li> <li>• Expand opportunities for training in such fields likely to be suitable for women as: Sewing and fashion design; Food processing; Secretarial services; Architectural drafting; Electricity/electronics; Computer applications; Radio/TV repair and assembly; Air conditioning and refrigeration.</li> <li>• Ensure that well-trained female trainers are available to serve as role models for trainees.</li> <li>• Provide dormitory facilities to ensure effective female enrollment.</li> <li>• Include training in entrepreneurship, management and credit discipline.</li> </ul>

## Effectiveness in Achieving Goals, e.g., Quality

Problem	Recommendations
1. Fragmentation of responsibilities for skill training	<ul style="list-style-type: none"> <li>• Government should establish a single statutory governing agency for all vocational and skill training in the country</li> </ul>
2. Trainers lack industrial experience (only 60 percent of TTC staff, the rest had none). (94)	<ul style="list-style-type: none"> <li>• Establish systems to provide teachers with industry experience. (226)</li> </ul>
3. Low expenditure on non-personnel items (only 19 percent of per student costs. (94)	
4. Even trainees who have passed grade 8 do not have adequate literacy and numeracy rates to pursue a VT course successfully. (95)	<ul style="list-style-type: none"> <li>• Provisions should be made at the training institutions for providing literacy and numeracy proficiency to entrants that need compensatory education. (131)</li> </ul>
5. Over-centralization of administrative functions—both VTIs and TTCs (94,5)	<ul style="list-style-type: none"> <li>• Delegation of authority. (see first section, above)</li> </ul>
6. Technological irrelevance of some of the training: Facilities and equipment (in older TTCs and VTIs) outmoded and in poor repair. (98)	<ul style="list-style-type: none"> <li>• Establish building maintenance training programs at each training institute.</li> <li>• Update laboratory and instructional equipment, as justified within curricula endorsed by industry and according to lists suggested by industry.</li> </ul>
7. Some 30-40 percent of trainer positions remained vacant in early 90s (100)	<ul style="list-style-type: none"> <li>• Establish comparable wages with those in industry for comparable skills. (130)</li> </ul>

**Internal Efficiency**

<b>Problem</b>	<b>Recommendation</b>
1. High dropout rates: In 1990 20.3 percent for VTIs and about 24-30 percent in TTCs. (91)	<ul style="list-style-type: none"> <li>• Shorten training programs to modular training, reducing the opportunity costs of trainees and allowing flexible re-entry. (see below)</li> </ul>
2. Low utilization rates for the institutes, in particular, low utilization rates for TTCs in mechanical drafting (NSSIII=28 percent; NSSII=12 percent); carpentry (15 percent and 7 percent); building construction (16 percent and 7 percent) and plumbing (41 percent and 18 percent). Overall enrollments were only about 70 percent of capacity in 1993. (102)	<ul style="list-style-type: none"> <li>• Reduce entry requirements for trades in which there has been consistently low enrollment ratios (129)</li> <li>• Use training institutes for contract-based in-service training for industry. (130)</li> </ul>
3. Student:trainee ratios are lower than for other developing countries (student:teacher ratio of about 6-7 in TTCs ) (94)	<ul style="list-style-type: none"> <li>• Expand enrollments to capacity through lower entry requirements and shorter training programs or modular training.</li> </ul>
4. Low output-to-design ratios (51 percent in 1988 for TTCs and 40 percent in 1994). (94)	<ul style="list-style-type: none"> <li>• Lower entry requirements in selected trades; shorten training programs. (see above)</li> </ul>
5. High administrative and supporting staff cost per student (Tk. 3640 of total Tk. 8700, or 42 percent). (94)	
6. Courses excessively long for the skill being trained	<ul style="list-style-type: none"> <li>• Adopt competency based modular curricula to enable trainees to exit and enter training based on acquired skills. (129)</li> <li>• Use inputs from occupational analysis to distinguish the skills needed for occupational entry from those best learned on-the-job. (129)</li> <li>• Shorter, more intensive training periods will reduce the costs trainees incur as trainees. (129)</li> </ul>
7. Lack of cost recovery in the system	<ul style="list-style-type: none"> <li>• Establish production practice in selected TTCs_(TTCs are not currently permitted to carry out commercial production or repair or subcontract work for outside parties). (136)</li> <li>• Introduce sheltered workshop schemes, (e.g., business incubators) (137)</li> </ul>

## REFERENCES

- Asian Development Bank. *Vocational Training for the People's Republic of Bangladesh*; TA No. 2130-BAN, Utah State University, Final Report, September 25, 1995.
- Bureau of Manpower Employment and Training. May, 1998. "Handbook of Information on Training Activities," Dhaka.
- Department of Youth Development, 1997. "Success Stories of Self-Employed Youths," Ministry of Youth and Sports, Dhaka.
- Government of the People's Republic of Bangladesh. 1997. *Fifth Five Year Plan, 1997-2002*, Planning Commission, Dhaka.
- Haque, M. 1998. *Human Development in South Asia*, UNDP.
- Mia, Ahmadullah. 29 August 1997. "Impact of UCEP on Skilled Manpower Development", *Independent*, Dhaka.
- Underprivileged Children's Educational Programme. 23 May 1998. "Underprivileged Children's Educational Programs — Bangladesh," Dhaka.
- Technical Education Board. 1991. "Report of the Tracer Study for Polytechnic Graduates of Bangladesh," UNDP/Unesco Technical Assistance Project BGD/001.
- \_\_\_\_\_. 1995. "Education and Training Programmes," BTEB/ACAD/597/September, 1995.
- \_\_\_\_\_. 1997. "Technical and Vocational Education Programmes," July.
- World Bank. *Bangladesh: Vocational And Technical Education Review*, Washington, 1990.



**Part Two**

**BANGLADESH  
HIGHER EDUCATION**

**Richard Johanson**



## EXECUTIVE SUMMARY

**The Vision for 2020.** By 2020, government expenditures will focus increasingly on the lower levels of the education system. Upper levels of education will be financed through greater cost sharing with beneficiaries. Higher education will thus become less dependent on government financing and will mobilize significant resources outside public sources, e.g., cost recovery and revenue generation activities. Government should promote the growth of private higher education so that by 2020 at least one-third of university education and one-fourth of higher technical education is provided by private institutions. Higher education will also have ended its isolation by establishing better linkages to markets and the world. Within Bangladesh, higher education will have created close links to economic markets, and the composition of enrollments and course contents will respond to changes in demand. Outside Bangladesh, higher education will have tapped into worldwide knowledge generation and applications by using networks and information technology. By 2020, a revitalized and strengthened University Grants Commission will generate strategic information on the system and play a key role in allocating public resources to higher education on the basis of performance. The National University will have raised the quality of degree colleges substantially through rationalization, development of a rigorous accreditation system, and widespread use of information technology. Information technology will make independent study much more the norm: the general population will have ready access to continuing education or alternative degree programs through the auspices of the Bangladesh Open University. Well before 2020, violence spawned by criminal activities will have been eliminated from campus.

The key strengths of the system on which this vision for 2020 can be built include: pockets of excellence in teaching among key institutions; a relatively high proportion of Ph.D. holders among teaching faculty; the existence of key intermediary organizations, including the UGC, National University, and Open University; and private management of higher education, including 80 percent of degree colleges and the newly-established sixteen private universities.

The main challenges to realization of the vision for 2020 include:

- **Overcoming problems of external efficiency of the system** such as distortions in the allocation of students by field of study (only 2 percent of bachelor's degrees in 1996 awarded in technical fields); structural rigidities that impede the flow of funds to open, close, expand, and contract courses in response to market demand; and inadequate research output (research consumes only 0.5 to 1.5 percent of university budgets). Inadequate support for poor students is also an issue. A 1996 review estimated that poor households receive only 15 percent of public spending on higher education; the remainder is allocated to non-poor households. Female students made up only one-fourth of enrollments.
- **Restructuring subsector management.** Within universities, governing bodies tend to be dominated by teachers and lack outside representation from guardians and employers. Vice chancellors have few resources to supervise staff, allocate resources, and hold departments accountable for funds spent. Department chairpersons, who are rotated routinely, have little if any authority over teaching staff. The UGC is also weak in enforcing standards and holding institutions accountable for funds received.

- **Quality issues.** University managers complain universally about the absence of staff development programs for keeping them up-to-date. Most institutions lack information technology and international linkages. Salaries account for about three-fourths of all spending at university level; however, salaries are reportedly low, which leads to multiple employment and reduced dedication to teaching. The proliferation of degree colleges, without adequate control over standards, has eroded quality. Class sizes average 70 students in degree colleges, and teaching staff are reportedly below standard in subject-matter knowledge and teaching skills. Teaching materials are in short supply. The examination system favors factual knowledge over higher-order skills and is subject to widespread unfair practices.
- **Managing costs and improving efficiency.** Low per-student expenditures account for much of the low quality at degree colleges. Unit recurrent expenditures in government degree colleges were only 13 percent of those at universities. Per-student expenditures in non-governmental degree colleges were only half that, i.e., under 6 percent, of the per-student cost in public universities. The allocation of funds within the system tends to be based on precedent or influence rather than per-capita averages by field of study, which results in wide variation in per-student costs. Moreover, the beneficiaries of higher education tend not to share costs. Tuition charges make up less than 1 percent of the costs per student and have been declining. Government provides about 95 percent of total public university costs. Finally, the government imposes onerous conditions on private universities—including excessive capitalization and land acquisition requirements—that discourage their development.

In a resource constrained environment any expansion of capacity (especially in colleges, polytechnics and universities) inevitably means further erosion of quality unless there is both significant resource mobilization from non-government sources and improvements in the efficient use of current public provisions. Expansion is desperately needed, but expansion at public cost is certain to compromise the even more important goal of reversing the erosion of quality. Quantity without quality is the prescription for a national disaster. Quality without quantity is at least a possible basis for survival and one on which to build. Meeting even the minimal quality goals beyond basic education will require resource mobilization from non-public sources. Bangladesh has no choice in this unless it wishes to muddle through with things as they are now — which is to set the nation up for failure and its people for continued poverty. Restraint is therefore recommended on expansion of places in public universities. Cost recovery is also recommended to mobilize finances for quality improvements. A policy of cost recovery in public universities would be equitable because students in higher education tend to come from better off segments of society and the private benefits for university education are substantial.

Actions to meet the long term vision for higher education include the following steps:

- Increasing responsiveness to market signals, specifically for quicker expansion and contraction by field of study in response to student demands and establishment of positive incentives to strengthen fields of demonstrated demand.
- Establishing a more effective system of governance and management of higher education by strengthening the powers of the UGC, including accreditation of sub-units within universities; adoption of normative financing; and review and modernization of university statutes to introduce outside representation on governing bodies and strengthen the management role of the vice chancellor.
- Rationalizing the system of degree colleges through stricter accreditation, linkage of financing with performance, provision of financial incentives for improvements, and reform of examination systems.
- Curtailing expansion of capacity in public universities and mobilizing non-public resources to overcome chronic underfunding of higher education, including (a) cost recovery among beneficiaries (increased tuition charges in parallel with loan funds, scholarships, and investment in better learning

conditions); (b) strengthening the provision of private higher education by easing the restrictive regulatory framework on private higher education; and (c) making expenditures more efficient through adoptions of per-student (normative) financing and linking subsidies to performance.

- Investing resources in new teaching technologies, including information technology, and improving linkages with world knowledge generation and applications.
- Reducing and eventually eliminating campus violence caused by criminal elements; introducing academic performance criteria for competition in elections; changing the basis for student unions from residential facilities to departments; establishing, updating, and enforcing standards of student and teacher conduct.



## A. DIMENSIONS AND CHARACTERISTICS

1. Two almost completely separate systems of higher education exist: highly competitive universities and a vast number of degree colleges affiliated with universities. Total enrollments were about a half million students in 1997, 74,000 (15% of the total) in universities, and 426,000 (85% of the total) in degree programs at colleges. Degrees in higher education are given in the following programs: pass degree (HSC + 2 years), honors degree (HSC + 3 years<sup>1</sup>), and technical (HSC + 4 years). A master's degree can be obtained in one year after honors and two years after degree pass. These two types of institutions are dealt with separately below.

### *Universities*

2. (See Annex A, B, D, E, and F): The University Grants Commission (UGC), an intermediary body established in 1972 to act between the GOB and individual universities, performs six main functions, namely to: (1) assess the needs in university education and evaluate and recommend development plans to the Ministry; (2) identify financial requirements of the universities; (3) allocate operating and development funds from the GOB to the various institutions; (4) evaluate use of funds and implementation of development programs; (5) advise the GOB on establishment of new universities, including private universities, or expansion of existing institutions; and (6) collect and disseminate statistical information.

3. Access to university education is strictly limited; fewer than 10 percent of the 242,000 students who obtained HSC in 1996 were admitted to universities. The remainder went to degree colleges and technical institutions or entered the labor force. Over the past decade enrollments at the higher education level increased by only about 5 percent per annum (p.a.), which indicates restraint on the part of Government planners. The Government has been successful in holding enrollments at the university level in check, in part by channeling new students to degree colleges, to private universities, and to the Bangladesh Open University (BOU). More master's degrees of various types were awarded by the universities in 1997 than bachelor's degrees of all types (16,200 vs. 13,700). Still, many in the higher education community feel that an imbalance exists between undergraduate and graduate studies, i.e., that public universities are overburdened by undergraduate teaching. The public enrollment distribution by field of study in 1997 is shown in Table 2.2. Enrollments in engineering and agriculture were comparatively low, at 4.3 percent and 5.2 percent of the totals, respectively.

**Table 2.1: Universities: Institutions, Students and Teachers, 1997**

Category	Unit	Government	Private	Total
Institutions	(No )	11	16	27
Students	(000s)	67.8	6.2	74.0
Students per Institution	(000s)	6.2	0.4	2.7
Female Students	(%T)	24.2	16.8	23.6
Teachers	(000s)	4.0	0.6	4.6
Female Teachers	(%T)	15.3	13.5	15.0
Students per Teacher	(No.)	17.0	10.3	16.0

*Source: BANBEIS, 1998, and UGC 1998.*

<sup>1</sup> At Dhaka University the honors degree is four years in duration.

**Table 2.2 Enrollment by Field of Study in Public Universities, 1997**

Field of Study	Enrollment	% Total
Arts and Humanities	14,400	21.5
Social Science	14,000	20.9
Sciences	14,100	21.1
Commerce	8,300	12.4
Law	3,000	4.5
Agriculture & Related	3,500	5.2
Engineering	2,900	4.3
Master's/PhD	2,400	3.6
Other	4,300	6.5
<b>Total</b>	<b>66,900</b>	<b>100.0</b>

Source: Computed from BANBEIS, 1998, Section IV, Table 5.

4. One notable feature of the university sector is the recent establishment of government-recognized private universities. At present, 16 private universities enroll about 6,000 students, about 8% of the university total.<sup>2</sup> These universities take no funds from the government. Thirteen of the 16 institutions are located in Dhaka. In terms of financing, the university sub-sector absorbs a relatively low proportion of the government budget, about 8 percent of total education recurrent spending and between 3 percent (1995/6) and 8 percent (1996/7) of development spending in education. Overall, university education has the reputation of being reasonably good in quality, but is being eroded by chronic underfunding and student unrest.

5. The Bangladesh Open University (BOU) was established in 1992, basing its curriculum on that of the Institute of Distance Education (See Annex D). The

purpose of BOU is to provide practical formal and non-formal education and training on a flexible basis at low cost via distance means to those not able to attend regular programs. It offers a variety of programs at certificate, diploma, and degree levels. It provides two-year pass degree programs and instruction leading to a master's degree in business administration and education. It enrolled a total of 36,000 in early 1998, and has had a cumulative enrollment of about 125,000 in its programs.

### *Degree Colleges*

6. A survey of those who passed the HSC in 1993 showed that about 80% of them went on to higher education.<sup>3</sup> About 85 percent of all students pursuing pass and honors degrees do so through degree colleges rather than universities (See Annex C). Table 2.3 shows the number of degree colleges and enrollment for government and non-government institutions.<sup>4</sup> Overall, enrollments in degree colleges grew at about 8 percent per annum between 1993-97, compared with 5 percent per annum in universities.

7. Non-government degree colleges make up 70% of all degree colleges and 53% of enrollments. Most of the growth was registered in non-government degree colleges. Over the period 1991-97 the number of degree colleges grew by 58 percent, and enrollments in non-government degree colleges increased by 59 percent between 1993-1997. Enrollments remained relatively stable in government degree colleges except for an increase of 20,000 students in honors and master's degree programs. The proportion of females enrolled made steady progress, from 27% in 1993 to 33% in 1997.

2 UGC data on private universities are not current; enrollments may be larger. North-South University, for example, alone has over 2,000 students.

3 A.D.B., Higher Secondary Education Project, Eight Research Studies. Study 1, "Tracer study of higher secondary students following completion of HSC", March 1998. According to one A.E.D. study, 1998g, "normally a student with a second-division HSC pass will have no problem in being admitted (to a degree college.) A third-division pass will most probably secure admission, but this cannot be guaranteed." p. 2.

4 It is difficult to get a clear picture of the dimensions of degree colleges and their enrollments. Degree colleges often include enrollments at higher secondary (intermediate) level and the two levels are often not differentiated.

Table 2.3 Number of Degree Colleges and Enrollments

Year	Type	Number of Institutions	Enrollments at Degree Level and Above (in thousands)				Female as a % Total
			Degree Pass	Honors	Masters	Total	
1991	Govt.	204	-	-	-	-	-
	Non-Govt.	343	-	-	-	-	-
	Total	547	-	-	-	-	-
1993	Govt.	219	123.5	43.8	12.7	180.0	27.5
	Non-Govt.	384	137.8	-	-	137.8	26.9
	Total	603	261.3	43.8	12.6	317.8	27.1
1995	Govt.	224	109.9	55.2	27.9	193.0	29.8
	Non-Govt.	447	163.8	-	-	163.8	27.5
	Total	671	273.7	55.2	27.9	356.8	28.9
1997	Govt.	225	110.9	60.0	30.1	201.0	34.3
	Non-Govt.	543	219.6	4.0	1.8	225.4	31.6
	Total	768	330.5	64.0	31.9	426.4	33.1

Source: BANBEIS, 1998, Section II, Table 7; BANBEIS, 1996.

8. Graduates of degree colleges receive their awards through an affiliating university. The Government established the National University (NU) in 1992 to take over the supervision of degree colleges in all fields except agriculture, engineering, and medicine. The National University has six basic functions at the degree level, namely to: (1) review and approve applications by degree colleges for Government recognition; (2) to provide oversight and control of non-governmental college administration; (3) to regulate academic matters, including definition of curricula for all teaching programs; (4) to provide professional development of teaching staff at affiliated colleges; (5) to set examinations and award exams, currently in 45 subjects for about 400,000 students each year (including repeaters); and (6) graduate teaching and research in its own institutes. At present the NU has more than 900 affiliated degree colleges (697 at pass level, 103 at honors level, and 114 at master's degree level) with 700,000 students taught by 20,000 staff.<sup>5</sup> Dhaka and Chittagong Universities retain affiliation for an additional 41 degree colleges with 16,000 students. Bangladesh Agriculture University oversees three agricultural colleges. Non-governmental institutions account for about 80 percent of the colleges and 60 percent of the enrollments at the degree level. However, unlike private universities that receive no government funding, the government heavily subsidizes non-governmental institutions. The government finances 80 percent of the basic salary of sanctioned teaching posts in most recognized non-government colleges. The Prime Minister reportedly approved a proposal recently to increase this subsidy to 100% of basic salaries.

9. The number of degree colleges has increased rapidly in recent years, including the recognition of over 180 and 195 new degree colleges between 1993/4 and 1994/95, respectively. This expansion was accomplished without commensurate provision of trained staff and appropriate facilities.<sup>6</sup> As a result, the degree college sub-sector is widely regarded as poor in quality (except for traditional, selective colleges). The NU controls access to honors degree programs, but not admissions to degree pass programs, many of which practice open admissions. In addition to the NU, the BIT Council (Annex F) coordinates the activities of the four

5 It is not clear how these numbers can be reconciled with those in Table 6.3, provided by BANBEIS.

6 In the public sector the average number of students per teacher in degree colleges increased from 35 in 1985 to 56 in 1995. Data for the years 1990 and 1995, however, suggest a decline in the average number of students per teacher in private degree colleges, from 43 to 30. It is not known what proportion of these teachers were adequately qualified.

engineering colleges enrolling about 3,200 students. It has virtually the same functions as the UGC, only for institutes of technology.

10. Data on enrollments in degree colleges by field of study are hard to come by. However, it is clear that one of the striking characteristics of college enrollment is the dominance of general subjects. Enrollments in science-based subjects are extremely low (the actual percentages are not available from the National University). Enrollments in engineering at the BITs (former engineering colleges) are equal to only three fourths of one percent of the enrollments in degree colleges.

## **B. STATUS OF KNOWLEDGE OF THE SUB-SECTOR**

11. Few analyses have been done on higher education, in part because of lack of external donor interest in the subsector. The UNDP Post-Primary Sector Review (1994, see Annex I) includes some description and analysis of higher education from the early 1990s. The University Grants Commission produces annual reports that describe and to some extent analyze developments in the university system. Data collection is inadequate for both universities and colleges. For example, the NU does not collect routinely enrollments by field of study for the various degree programs. Insufficient analysis has been done on the key problems, issues, and constraints faced by higher education as it enters the twenty-first century. In particular, the situation of degree colleges remains undocumented. The plight of higher education management for both universities and degree colleges needs analysis.

## **C. STRENGTHS**

12. Higher education in Bangladesh has many strengths and advantages. At the university level, pockets of reasonably good quality teaching exists in some universities and faculties<sup>7</sup> and in a few colleges. In 1998 Dhaka University was ranked forty-fourth of 65 leading Asian universities, ahead of other well-known universities in the region such as Macquarie University (Australia), University of the Philippines, University of Delhi, Gadjah Mada University (Indonesia), Ritsemeikan and Doshisha Universities (Japan), the Science and National Universities of Malaysia, and Vietnam National University.<sup>8</sup> It ranked ninth in student selectivity, an indicator derived from number of first-year students accepted compared with total applicants and their performance on national examinations. Its overall ranking reportedly improved by seven places in 1999. About 40 percent of teaching staff in universities have Ph.D. degrees and another 30 percent have other higher degrees. The total is 70 percent Ph.D.s among teaching staff at Dhaka University. A valid admissions system and terminal examinations exist, i.e., the most academically able from among the applicants tend to be admitted and graduated eventually. At the better universities the quality of teaching of theory, at least, is reportedly high.

13. Private management is an important characteristic of much of higher education in Bangladesh. This includes 80 percent of degree colleges and the emerging private universities. Students in these institutions tend to pay for an important share of the costs of their education through tuition and other fees, including about a third to a half of the total costs in non-governmental degree colleges and all the costs in private universities. These institutions are an important factor in limiting the public costs of higher education.

14. The benefits of private higher education to the whole education system can be substantial. It provides a relief valve for the unsatisfied social demand for higher education and relieves the public sector of paying for the education of thousands of students. Over time, as quality improves, private provision of education can provide healthy competition for the public sector. Already there is evidence that the quality of some private university graduates is reasonably high, as indicated by the quality of entry level job offers received

7 E.g., Physics, biochemistry, economics, business, law, and finance/accounting at Dhaka University.

8 . "Asia's Best Universities: 1998", *Asia Week*, May 15, 1998, pp. 56-58.

by the first generation of graduates. Private universities can also be an effective means of bringing innovation in both content and methods of teaching in higher education. Sixteen private universities have been established, and twelve more applications have been reviewed and recommended by the UGC. While private universities are still in their infancy, it is evident that they are well attuned to labor market requirements. Private institutions have tended to concentrate on fields of study with high marketability and individual returns, namely: business management and accounting; computer science, engineering, and medicine (See Annex E). So far, the private universities have not established an association to promote their professional development and interests.

15. The system of higher education is also characterized by several strategically placed institutions. The UGC occupies an intermediary position and has the potential for rational allocation of funds among competing institutions. The BOU has the potential to provide a broad number of students with relevant higher education programs at low cost per student. At the degree college level, the NU is well placed to leverage quality improvements. In 1998 the NU revised curricula in about 30 basic subjects and introduced procedures for an admissions system based on written entrance examinations at degree honors colleges. The NU has also begun to give short in-service training in subject matter to selected junior teaching staff at degree colleges.

#### D. WEAKNESSES

##### *External Efficiency (Relevance)*

16. Society expects higher education to perform several vital functions. Among them are the creation of the knowledge, skills, and attitudes necessary for productive work in the economy, i.e., the preparation of skilled manpower. Higher education facilitates the development and transfer of technology essential for economic growth and development. Another expectation is that all groups in society gain equal access to the benefits of higher education. "External efficiency" is the criterion by which the outputs of the system are compared broadly with these needs and expectations.

17. Distortions exist in the allocation of students by field of study. At the university level the excessively high proportion of students in non-science and technology — about 70% — has been criticized. The UNDP review mentioned an inadequate number of places in science, technology, engineering, agriculture, and medicine. Overall 83 percent of university students enroll in general universities, versus 17 percent in agricultural, engineering, and science and technology. Underenrollment in technical fields is particularly acute in terms of outputs: technical fields accounted for only 2 percent of the bachelor's degrees awarded in 1996 and only 1.3 percent of postgraduate degrees.<sup>9</sup> The situation in degree colleges is similar, with an overwhelming emphasis on general subjects.

18. Unemployment has been a long standing problem among liberal arts graduates, particularly from the degree colleges, but recent reports also point to significant levels of unemployment even among engineers. Graduates of the BITs with B. Eng. degrees typically face six months to one year of unemployment. Employers also claim that engineers and other university graduates require extensive retraining on the job, more than those from universities in neighboring countries. Employers complain that the course content of teaching programs is often outdated and obsolete, particularly in fields that are developing quickly. With notable exceptions curricula in general are becoming more and more dated, particularly in science. This is caused by lack of linkages with external knowledge generation, such as teaching staff exchanges, periodicals, internet facilities and lack of teaching equipment for laboratories. It is widely believed in the university community that the gap in scholarship is widening between universities in Bangladesh and in more advanced countries.

---

<sup>9</sup> UGC, *Annual Report, 1997*, section 7.10.

19. Structural rigidities also impede the opening, closing, expansion, and contraction of courses in response to market demand. The distribution of enrollments by field of higher education tends to perpetuate itself. Admissions are geared to existing teaching capacity. Within universities, the department system is highly specialized and does not permit the kind of broad exposure most appropriate for a dynamic labor market. Management of the Institutes of Technology claim to have difficulty in opening new teaching programs in technologies geared to strong market demand. The system of affiliation among degree colleges does not engender flexibility in expansion and contraction of course offerings in response to student demand (a proxy for market demand). Once the number of teaching positions is fixed, institutions are not free to change the allocation of public funds by field. For example, enrollments in classical studies may have fewer and fewer students, while simultaneously computer science may be oversubscribed. However, it is not easy to reallocate publicly financed teaching positions from fields in surplus to those in excess demand. More flexibility is needed to give freedom to college administrators to allocate resources within institutions in response to market forces.

20. **Creation of New Knowledge.** Research output from universities does not reach its potential or societal expectations. Research, particularly in topics relevant to important local problems, has been substantially curtailed by the lack of recurrent budgets. The UGC provides some funds through two programs for academic staff and a research support fund. However, the level of funding is modest. Institutions spend the bulk of their funds on staff salaries (90 percent at BITs and 77 percent at universities). After expenses for transportation and utilities are deducted, this leaves little for research. In 1996, Dhaka University spent the equivalent of only 1.5 percent of its UGC grant on research; BUET spent 1.4 percent on research; at the University of Rajshahi the amount was less than 0.5 percent.<sup>10</sup> The present system of promoting academic staff, moreover, does not provide incentives to publish in professional journals—an indicator of new knowledge creation.

21. **Equity.** Admission to higher education is highly inequitable. Those who survive in the education system are those who can afford the opportunity costs of attendance. The poorer segments of society have dropped out much earlier in the education system. Children of white-collar workers (professionals, businessmen, civil servants, and teachers) are almost exclusively represented in higher education institutions. Despite the subsidies in the form of stipends and allowances, children of blue collar and landless laborers generally do not gain access to higher education. It costs 58 times more to enroll a student in the university compared than it does to enroll a child in primary school.<sup>11</sup> A student who enters the university already has consumed substantial education resources in the previous twelve years of study. A World Bank study in the early 1990s found that "The financing arrangements in the education system and the structure of enrollments result in highly inequitable distribution of public spending on education, with the 10 percent best educated people in a generation receiving as much as 76 percent of the cumulative public spending appropriated to the entire generation through publicly financed education."<sup>12</sup> The Bangladesh figure was more than twice the regional average of 36 percent.

22. Women are also underrepresented in higher education. The enrollment ratio for males in higher education was 5.4 percent of the eligible population and only 1.1 percent of females in the early 1990s.<sup>13</sup> Women occupy only about a fourth of the places in public higher education (and only 17 percent in private universities). BUET and other technical institutions have particularly low female enrollments, including only

---

10 *Ibid*, part 7.

11 See Volume I, Education Finance, Table 2.5. The annual cost per student in university was \$731 compared to just \$12.7 per student in primary education.

12 Jee Peng Tan and Alan Mingat, *Education in Asia: A Comparative Study of Cost and Financing*, World Bank, 1992, p.140.

13 Female enrollment in the universities increased from about 19 percent of the total to 24 percent between 1990 and 1997.

4 percent female enrollment in BITs. The BOU is an exception, with 60 to 70 percent of its enrollment female. The performance is somewhat better in degree colleges where about a third of the students are female.

23. Almost 10 percent of the budget for higher education is allocated to student stipends and subventions. However, the stipends are allocated on merit, not on the basis of economic need.

## E. EFFECTIVENESS AND QUALITY

### *Universities*

24. **Governance and Administrative Effectiveness.** Many observers feel it is time for fundamental change in the governance and administration of higher education. The legal basis for higher education is complicated. Some laws derive from colonial times; others come from the Pakistan era. Still other statutes were enacted just after independence when the notion of university autonomy was jealously protected; some feel self-governance and democratization of universities was carried too far. The universities tend to be inundated by elections, particularly for vice-chancellor and deans. Time spent on elections is at the expense of academic affairs. The syndicates or senates of the universities tend to be dominated by teachers, and lack any outside representation from the wider community—particularly guardians and employers. Funds tend to be allocated among the faculties and departments based on historical precedent or personal influence, rather than objectively on the basis of students enrolled and average costs. The office of the vice chancellor has few staff resources to supervise the faculties of the university and monitor the work of departments. The result is lack of accountability for funds spent.

25. The UGC was set up with relatively weak powers for coordination, planning, and resource allocation and, as a result, the Government tends to dictate the allocation of funds. Its ineffectiveness in enforcing consistent standards can be seen in the absence of uniformity among higher education institutions at the operational level, e.g., in admissions, examinations, teacher-student ratios, and costs per student. Funds are not allocated on a normative e.g., per-student, basis by field of study. As a result, some institutions enjoy relatively high per-student budgets at the expense of others (Annex, Table A-6). The UGC does not have the power to require substantive changes in universities. The Fifth Five Year Plan states, "While the UGC is enforcing discipline in the universities and channeling funds to different universities, its control over them is found to be less effective or it has little authority/ability to maintain discipline, efficiency and academic values in the universities."<sup>14</sup> As stated in the UGC annual report for 1997, certain universities are not preparing accounts in accordance with the rules. "As a result, it is not possible to determine if the funds released by the Commission are being duly utilized or not." Also, the report continued, "many universities are way behind in auditing the accounts. In many universities, three to four-year-old advance payments still remain unadjusted."<sup>15</sup> In short, institutions are not effectively held accountable by the UGC for funds they receive. A mechanism should be evolved to establish transparency and accountability in the financial dealing of public universities in Bangladesh. Finally, the process for election of vice-chancellors means they have little scope for changing and improving management processes after the election. The larger, more traditional departments (e.g., physics, history) have a disproportionate influence over decisions, for example, how to allocate enrollment increases.

26. **Quality of Learning.** Enclaves of excellence exist in many universities and colleges. Still, many problems impede strong learning achievements in universities. Pass rates for the first-degree change considerably from year to year and from institution to institution. They vary from 40 to 50 percent for the degree pass level, from 80 to 88 percent for the honors degree, from 64 to 93 percent for technical degrees, 64 to 93 percent for post-graduate general, and 54 to 95 percent for post-graduate technical (Annex, Table A-7).

<sup>14</sup> Fifth Five Year Plan, section 20.12 6

<sup>15</sup> UGC, *Annual Report, 1997*, Section 7.1

One of the reasons for indifferent quality is the system for appointment of teaching staff. The Dean does not select teaching staff; rather selection is done by a committee of senior administrators on which the Dean has a minority voice. Many claim this process leads to mediocrity. The UNDP review of post-primary education in 1992 adduced the following reasons to explain low quality: (1) inadequate professional preparation of teachers in both subject matter and teaching methods; (2) lack of academic supervision; (3) inadequate attention to research; (4) lack of teacher and institutional accountability; and (5) lack of sufficient suitable textbooks (See Annex I). Reasons (3) through (5) are still valid for almost all higher education institutions at the end of the 1990s, while the first two reasons apply now mainly to degree colleges. In some universities students do not even use textbooks, but rely on photocopies notes of students from previous years.

27. University managers complain universally about the lack of staff development programs and opportunity for updating skills. In addition, most institutions lack access to Internet connections for faculty, which they could keep current on developments in their fields.<sup>16</sup> Teaching methods need updating too. Private universities have a different problem: difficulty in hiring sufficient full-time staff. BITs reportedly suffer from long delays by the Public Services Commission in filling vacancies; these can take years. In the meantime, existing staff is saddled with extra workloads, students are not taught by specialists in the field or they even end up deprived of needed classes.

28. Department chairpersons, rotated automatically every three years (and deans every two years), have little, if any, authority over teaching staff. Teaching staff is expected to teach from 6 (for professors) to 16 contact hours per week (for assistant professors and lecturers). However, the actual average for all staff often tends to approximate that of professors. This shortchanges students when class sessions are not held. Teachers are not held accountable to university administration for performance. Deans can do little if a teacher fails to meet his/her teaching obligations. Equally serious, the system of teacher selection and promotion has become politicized with two pernicious effects: appointment and promotion of candidates with lower qualifications and academic publications; demoralization of the remaining staff and erosion of commitment to teaching.

29. Overall in public universities, salaries account for about three-fourths of current spending, an extraordinarily high proportion for higher education. "After the lion's share goes to the salary sector, most of the remaining part is used for the essential administrative and maintenance costs, with very little left over for the actual education sector expenses."<sup>17</sup> Little budget is left to finance teaching equipment, supplies and research. The proportion of recurrent expenditures devoted to teaching equipment, supplies, books and journals in 1996 was 6.1 percent at Dhaka University, 3.7 percent at Rajshahi University, 3.2 percent at Bangladesh Agriculture University, and 9.5 percent at BUET. These amounts are extremely low for universities.

30. Teacher's salaries are also reportedly low, particularly in fields with strong market demand. Low teacher salaries and motivation may be the most basic cause of quality deterioration in university education. Low pay in many cases leads to multiple employment and restricts the amount of time that teaching staff can devote to preparation and assisting students.

---

16 The only Internet connection in May 1998 at Dhaka University (with an enrollment of about 25,000 students in 1997) was in the computer science department. The University of Chittagong had no internet or Email facilities in July 1999.

17 The UGC lays parts of the cause at the feet of university administrators themselves. "Investigation into the cause of the steady rise in expenditure for salaries and allowances has revealed that the universities have ignored the Commission's policy regarding promotions/upgradation of teachers, officials and employees. Instead they have gone ahead to follow their own flexible policies for creating posts, promotions/upgradation. In some cases the number of filled posts outnumbers the post created." UGC, *op. cit.*

### Degree Colleges

31. The problems of quality in university education pale in comparison to those of the degree colleges. The proliferation of degree colleges, with inadequate supervision by the NU,<sup>18</sup> has eroded quality, led to a third rate system of higher education, and become a major problem. The NU sanctioned over 100 new degree colleges in each of the two academic years between 1994/95 and 1995/96. The expansion of recognized institutions, mostly upgraded from intermediate colleges, has occurred without commensurate provision of trained staff and facilities. In particular, many college observers fail to see how more than 103 honors colleges affiliated with the NU can operate honors and masters programs without highly qualified staff, library and laboratory facilities. Even Dhaka College, one of the premier institutions in the country, reportedly operates without sufficient basic science equipment.

32. Table 2.4 shows the smaller, perhaps uneconomic, size of the non-government degree colleges. Ironically, the number of students per teacher is much higher in government schools (55:1). If correct, the ratio must be one of the highest in the world for degree level teaching.<sup>19</sup> The table also shows the wide variation in students per teacher for the two types of institutions, from 50-65 for public institutions and 20-43 for non-government colleges.

33. In 1995/56, unit recurrent expenditures in government degree colleges were only 13 percent of the level of universities (Tk. 3,200 compared with Tk. 24,600, respectively). Public expenditure on non-government degree colleges was, at Tk. 1,400, less than half (44 percent) of the unit costs of government degree colleges and under 6 percent of the cost per student in public universities.

**Table 2.4: Dimensions of Degree Colleges by Location**

Category	Ownership	Division						Total
		Chittagong	Sylhet	Dhaka	Khulna	Rajshahi	Barisal	
Institutions	G	49	9	63	28	57	19	225
	NG	95	20	152	80	148	18	543
Students (000s)	G	110.9	17.6	180.1	67.0	113.9	36.7	526.3
	NG	130.3	10.3	204.0	79.5	131.7	31.1	586.8
Teachers (000s)	G	1.7	0.3	3.3	1.2	2.3	0.7	9.6
	NG	3.0	0.5	5.1	2.7	5.1	1.6	17.9
Students/College	G	2263	1955	2859	2392	1998	1932	2339
	NG	1372	515	1342	993	890	1739	1083
Students/Teacher	G	65.2	51.3	54.6	58.0	49.5	51.8	54.8
	NG	43.4	21.4	40.0	29.4	25.8	20.0	32.8

G = government; NG = non-government  
Source: BANBEIS, 1998, Section II, Table 10.

34. The "open admissions" policy of the Government often leads to overcrowding. Venal practices are also reported for admissions via student leadership at the college level. "In colleges student leadership has

18 Staff of the National University found this statement to be misleading. It stated that "the University does not accord affiliation at random without properly weighing merits and demerits of cases." (written submission). However, staff of the University are quoted in Annex as having said that if the University were strict in applying standards no new institutions would be approved. Instead, the University makes exceptions and gives colleges probationary status pending achievement of specified standards.

19 Other possible explanations include: (1) non-government schools are maximizing the number of teaching staff, (2) staff at non-government schools work part-time instead of a full load, (3) the government teachers work a double shift without being counted twice. The facts should be ascertained.

emerged as a factor that influences the administration to the helplessness of the authorities. In many cases students pressurize the administration, dictate terms to them, get a quota of seats, sell admission forms at high prices and get students admitted. Sometimes some unscrupulous elements in colleges also resort to unfair practices in admission matters."<sup>20</sup>

35. Overall class size averages 70 students in degree colleges, yet these institutions are not equipped to handle such large student groups. Almost all teaching staff (90 percent) hold master's degrees. However, many are below standard in subject matter knowledge and teaching skills. Raising the qualifications of teaching staff at the college level and in universities is made difficult by the relatively low output of homegrown Ph.Ds from within the system. In 1997, post-graduate sections of universities graduated only 76 persons with Ph.D. or M.Phil. degrees. This bottleneck places a severe constraint on the possibilities for raising the quality of degree level education.

36. The NU faces several issues that affect its effectiveness.

37. **Scale of the Problem.** The problems of degree colleges are massive. No single institution, no matter how effective, can hope to raise teaching quality quickly in more than 900 dispersed, often small, institutions. The NU has adopted a strategy of concentrating on honors degree colleges, which seems reasonable. However it has not yet decided on ways to make an impact on the broader problem. Similarly, it is difficult to imagine a national institution, located in one place that could supervise quality standards in hundreds of degree colleges. Frequent visits are simply impossible. Some sort of decentralization may be necessary, perhaps in collaboration with other HEIs such as the Open University. Raising teacher quality through short residential courses at the NU is not likely to make a quick impact on the overall problem of inadequate teacher qualifications. At most, the University could train about 1,250 of the 20,000 teaching staff per year; sustaining that level of enrollment would be costly and take an assiduous effort. At this rate it would take 16 years to recycle the entire teaching staff. Instead, the University needs to consider innovative ways of raising quality, e.g., dissemination of new teaching materials, use of distance methods to bring subject matter up to date, and reliance on more modern media for demonstration of better teaching. The numbers involved would justify design of new ways to reach the target audiences on a recurrent basis, rather than once every sixteen years.

38. **Management Information and Examination Processing.** Because of its central role, the NU could and should be collecting statistical information for analysis of the problems associated with degree colleges. Apart from publishing examination results by college, it produces little information about degree colleges. It does not provide information on enrollments by type of degree or field of study or on the number and qualifications of teaching staff. Moreover, processing of the examinations is done manually. This makes it difficult to get quick results and prevents the introduction of testing for other, higher order skills. "Delay in the publication of results is a matter of serious concern. The university has to own the responsibility, although there may be reasons beyond its control. For the thousands of answer scripts the university has of necessity to recruit examiners from the different universities and colleges situated far and near in the country. Dispatch and receipt of scripts is a time consuming process and coupled with this is the delay some examiners often make to complicate things."

39. **Enforcing Standards of Accreditation:** The NU should be more forceful in requiring adherence to minimum standards. It should expand the standards to include such criteria as minimum enrollment sizes, proper geographical distribution of facilities, and even performance on examinations. This will be difficult, given the political motivation behind the establishment of many colleges. Efficient use of scarce resources demands it.

---

20 Professor Abu Mohammed, Dean, National University, "National University Structure and Management," no date but quoting data from 1998

40. The use of standardized exit examinations is a two-edged sword in terms of quality. The examination system is a relatively positive element in keeping at least minimal quality standards. The examination gives a focus for studies and motivates students to learn. The examination system is relatively well understood by all students and teachers. Generally the better students in terms of academic ability get the better scores in the examination. Some screening device is needed to weed out performers from non-performers, particularly in view of the policy of "open admissions" at degree pass level.

41. However, problems exist. For one thing, it dictates the kind of knowledge that students must learn, predominantly the mastery of factual material, rather than analysis and problem solving. The examination system as currently practiced clearly encourages "cramming" by students. Exclusive dependence on the final examination does not favor the most effective learning, which is best emphasized through periodic testing and reinforcement. For another thing, the examination system is open to some corruption and use of unfair means. "Unfair practices in the examination are eating into the vitals of our whole system. Such practices are open and rampant, throwing the greatest challenge to the authorities. Examination centres are too many (in the last degree pass examinations there were 500 odd centres) even in colleges that do not deserve them. Centres in the remote areas are more the problem. The remoter the centre, the worse the situation. In many of the centres students adopt unfair means with unabashed defiance. The authorities have to remain silent spectators. Where an examination schedule is announced, there are groups of students to launch movements on this score or that to shift the date behind and to keep long gaps in between two papers. The situation often takes such a turn as leaves no option for the university but to acquiesce. Then strikes, hartals and natural calamities, which are not infrequent, invariably create situations (leading to session jams)."<sup>21</sup>

42. Still, given the size of enrollments and inadequate resources, the examination system helps define minimum standards and measures their achievement in an approximate way. Moreover, it offers the potential to begin introducing higher order cognitive skills in the academic process through reform of the examination system, thereby influencing changes in syllabi and teaching practices.

43. **Excessive Politicization.** Politicization of the educational process affects colleges as well as universities. The local member of Parliament must usually be appointed as the head of the governing body of degree colleges, and the deputy is the district commissioner. These persons reportedly use the colleges for political purposes to support their respective parties and get students and staff involved. This tends to distort the teaching purposes of the institutions (see following section on 'Student Unrest and Violence').

#### F. COSTS AND INTERNAL EFFICIENCY

44. Public subsidies per student and unit operating costs in higher education are currently about 58 times those in primary education. A study in the early 1990s found that costs per student in higher education in Bangladesh exceeded the regional mean by more than 90 percent.<sup>22</sup> The equity implications are that the state is subsidizing heavily students from the most well off segments of the population. However, costs per student are not excessive by international standards, in part because there are an average of 17 students per teaching staff. The system is also relatively efficient in terms of cost per graduate from the honors program and graduate studies, where completion and pass rates are relatively high.

45. Still, there are some signs of inefficient allocation of resources within the system. Budgets are distributed on the basis of precedent or influence, not per capita averages by field of study. Budgets are transferred to universities in three categories: salaries and allowance, educational contingencies and other contingencies. Roughly half of the salary category is spent on non-teaching staff. Moreover, about one fourth

21 Professor Abu Mohammed, Dean, National University, "National University Structure and Management," no date but quoting data from 1998

22 Tan and Mingat, p 112, 140 The unit costs of higher education were 191 percent of the regional average Bangladesh was second highest on this index of the 11 countries in the study, and was exceeded only by Papua New Guinea.

of the salary category goes for pensions because there is no regular retirement scheme. Managers have little flexibility in spending their budgets. Funds may not be transferred across categories. Any savings at the end of the year are returned to the exchequer. This process destroys any incentive to save and in fact works the opposite way. Budgets distributed to departments similarly cannot be reallocated.

46. Student teacher ratios vary widely among institutions and among faculties/departments within institutions (see Annex A). Universities and colleges are not quick to respond to changes in student demand — in part because of the balance of power held by traditional faculties in decision-making. Fields of study that are out of favor tend to keep and use their staff resources inefficiently. Similarly, costs per student range from Tk. 12,000 to 72,000 per student. The variance among general universities is two-fold: from Tk. 14,000 to 29,000 per student.

47. Universities tend not to follow sound business practices, even in managing their non-teaching resources.<sup>23</sup> Two key institutions, the NU and the Open University<sup>24</sup> have potential to improve efficiency in the system on a large scale in different ways, but are still young and have still have a long way to go to achieve full effectiveness.

48. In contrast with degree colleges—where most of the students pay tuition and the government only subsidizes part of the costs—the beneficiaries of university education tend not to share the costs. Students pay only a nominal tuition fee—a fraction of 1 percent of the recurrent expenditure per student.<sup>25</sup> The tuition rates have remained minimal for decades, and in fact have declined in real terms. In addition, students receive sizable stipends and heavily subsidized room and board. Absent any other appreciable sources of income, the net result is almost exclusive dependence of the university on state financing. In 1996, universities only raised 7 percent of their recurrent budgets outside the UGC allocation.<sup>26</sup>

49. Cost-sharing with the private sector is limited by onerous conditions on private universities. The recent amendment to the Private Universities Act increased substantially the deposit required against the possibility of default and maintained the requirement that private institutions own a minimum of five acres of land and buildings within five years. This could discourage even those institutions already approved, let alone new institutions. The government over-controls private universities. It even requires approval of the vice-chancellor, faculty deans, department chairmen and the registrar.<sup>27</sup> Such control is unnecessary and has the effect of discouraging otherwise suitable applicants. Private institutions and their students receive no public support, so it is in the financial interest of the state to encourage expansion of such institutions.

### *Student Unrest and Violence*

50. According to many observers the biggest obstacle to efficient teaching and learning is widespread politicization of university education<sup>28</sup> leading to strikes, student violence, and frequent, extended closure of institutions. Students often have forgotten the main mission of the university. Studies are subservient to

23 Two examples are the high maintenance costs of staff flats and the university-operated bus system at Dhaka University.

24 BOU has its own problem of internal efficiency, including a throughput of only 10 to 20 percent of registered students. This is not unusual for distance teaching institutions that depend on individual initiative and drive to complete the programs on a part time basis, but the rates should be increased.

25 The official scale of tuition fees calls for the payment of about Tk. 14 per year for studies towards a bachelor's degree in public institutions. This compares with a cost of between Tk 12,000 to 72,000 per student in public universities, and Tk. 3,200 in government colleges. Reportedly Dhaka University raises a total of Tk 3000 per student per year from various fees (equivalent to US\$60), but other universities are able to mobile much less (e.g., Tk. 400 or US\$8 at the University of Chittagong)

26 UGC, *Annual Report, 1997*, annexure H, excluding the National University The NU was the exception, raising 90 percent of its budget expenditures from registration and examination fees.

27 Reportedly the current government has used this requirement to 'encourage' the placement of persons from the same political party.

28 The problem is reportedly not so severe at the college level.

political activities, abetted by political parties. Political activities on campus have a strong, proud tradition in Bangladesh, but the recent phenomenon exceeds the parameters for normal political discourse and crosses the border of criminalization. This phenomenon occurs in most universities and several of the larger degree colleges. Some 30 percent of instructional days were lost in 1996 due to student unrest. This loss of instructional time leads to "session jam", with several cohorts of students packed into the institutions at the same time. It also means that, on average, it takes 1.5 to 2 years longer than planned to complete the degree program.

51. Campus violence is caused by several factors (see Annex G). The most obvious cause is student political parties and their armed wings. Controlling student halls has become a means of political mobilization, a base for extending influence and a license for rent-seeking activities. Student political parties, in turn, are supported and nurtured by national political parties. The dependent relationship of the university to government subjects the university to undue political influence, particularly the use of the national police force to maintain law and order on campus, and the almost exclusive financial dependency on the state. Finally, teacher politicization is most evident in the numerous elections for high level posts, new appointments, and teacher promotions. This has led to polarization or "tribalization" of the university community.

52. **Constraints on solutions.** Student politics exert a tight constraint on the possibility of rationalizing higher education, in particular to achieve greater cost recovery. Students managed to roll back more than half of a modest increase in tuition in 1998 at Dhaka University through organized protests. Lack of central financing is another constraint. At a time when institutions are starved for funds, politicians (see section G below) envisage even greater expansion. Ambiguous policies towards private universities and colleges may constrain their development. Officials often view private institutions with disdain and have recently imposed stricter bureaucratic controls.

#### **G. GOVERNMENT PLANS AND POLICIES (SEE ANNEX H)**

53. The Fifth Five Year Plan (1998—2002) and the recently proposed National Education Policy both make important recommendations concerning development of higher education in Bangladesh. However, they do not constitute a comprehensive higher education policy, nor are they perspective plans that are financially feasible for the long term.

54. The Fifth Five Year Plan sets the following priority objectives: (1) expand the system with emphasis on science and technology, (2) improve quality, increase selectivity, and encourage excellence, including developing existing institutions as centers of excellence and research linked with productive sectors; (3) arrest the deterioration of law and order on campus. Specifically, the Plan calls for the establishment of twelve new universities of science and technology in underserved areas. Another important program is the massive training of teachers outside the country, including scholarships for 300 teachers per year. The Plan allocates just 4.5 percent of the total education development funds to higher education programs.

55. The functions of the UGC will be reviewed to strengthen its role in resource allocation and control of quality standards. The Plan includes the intention to establish "accountability of performance" by institutions and teachers in higher education. It proposes the creation of performance criteria to be used as a basis for public financing of future expansion and developments at institutions. Similarly, it calls for the establishment of a system of performance evaluation of teachers and use of performance criteria for the promotion of teachers. One performance criterion would be a reasonable number of publications in recognized professional journals. The Plan also states that the examination system will be reviewed and the semester system gradually introduced.

56. The Plan addresses the critical issue of resource mobilization in higher education. Establishment of private universities will be encouraged and supported, especially in science and technology. Private

endowments/chairs would be sought in public institutions. Student fees will be raised in parallel with financial support for the needy. Private investment in education will become tax exempt. Selected degree colleges at district centers will be developed as centers for post graduate education, including ten institutions to be made on par with cadet colleges. Twenty women's colleges will be established in districts without them by nationalizing existing colleges. Quality improvement will be supported in other colleges through the provision of laboratory equipment, library facilities, and teacher training. Finally, the capacity of the NU will be strengthened to supervise and conduct administrative inspections of colleges.

57. The proposed **National Education Policy** (NEP, or Policy) was developed in 1997-98 by a team of eminent Bangladeshi experts. The proposed Policy states that the purpose of higher education is to instill knowledge, search for new knowledge, and build up skilled human resources. The draft Policy calls for a "complete reform" of higher education to make it suitable for the twenty-first century. Its main recommendation is for a restructuring of higher education. In contrast with pass degrees of two years at present and honors degrees of three years duration, the NEP calls for a system of four-year degree courses followed, where appropriate, by a 1 year master's degree. General colleges would offer three-year degree courses, followed by two-year master's degrees at other institutions. In district headquarters, high standard university colleges will be established providing four-year degree courses and post graduate studies. The same standard curriculum would be followed for both degree and master's courses in colleges and universities. The NU would determine the course and curriculum.

58. The proposed Policy supports the increase in number of places in engineering education. It advocates more attention to post graduate education and research on national engineering problems as well as upgrading the education of practicing engineers. It calls for greater autonomy for BITs to open new programs. It suggests better linkages with enterprises and more systematic internship practice for students. It recommends that collateral subjects, such as economics and management, should be introduced in engineering education.

59. More generally the proposed Policy asserts that teachers must be more involved in research and that teacher promotion should depend on the output of useful research as well as good teaching performance. It recommends the introduction of Bangla in all subjects, including the translation of modern science textbooks into Bangla, but also recognizes that teaching should continue in English for the time being, because translation is lagging. The proposed Policy calls on the government to provide all necessary resources to improve and match the standard of studies in developed and competitor developing countries. However, it also recognizes resource mobilization as highly important to supplement government financing. Important sources are tuition fees, bank loans, and personal donations. Admission and tuition fees could be raised through graduated tuition, according to ability to pay. Private universities receive guarded support in the proposed Policy, including a call for equivalent standards, curricula, and educational qualifications with public universities. An accreditation council should be established to monitor compliance of private universities with agreed upon standards. Finally, the proposed Policy calls for the UGC to play a wider role in the overall planning and raising of standards in higher education as a whole.

60. The Plan and proposed Policy contain valuable ideas on addressing critical issues in higher education. Particularly important are their recommendations on restructuring, improving teacher qualifications and performance, resource mobilization, and support for private higher education. The ideas are inchoate, but provide a basis for comprehensive long range planning for higher education. Neither document assesses rigorously the financial feasibility of their proposals. The Plan calls for relatively modest additional investment in higher education. The Policy is unfettered by concern for financial constraints. Both documents need to spell out more fully incentives for private sector investment, a critical measure to make the system more affordable. Some of the objectives also may be mutually incompatible, specifically quantitative expansion in costly science and technology and the improvement of quality through centers of

excellence. The most costly alternative, creation of six new universities of science and technology, is chosen over expansion of existing BITs and provision of strong incentives to the private sector. It is difficult to see the justification for expansion when current institutions are starved of operating funds for laboratories, books, journals, and Internet linkages. Other than strengthening the UGC and NU, little concern is voiced for reform of governance and administration of universities. Similarly, the major issue of indifferent and poor quality in degree colleges receives scant attention.

#### H. DEVELOPMENT OF A LONG TERM STRATEGIC FRAMEWORK

61. Before deciding upon any investment support, it would first be necessary to develop a long term view for higher education and address some of the basic issues. This vision should build on the Plan and proposed Policy as well as take into account likely developments in the global economy and technology. A consultative group or task force should be established and financed to think through long range requirements with the help of external consultants. This group should include: (1) representatives that employ university graduates, (2) administrators, (3) the UGC, (4) teaching staff, and (5) students. The product should be a written shared strategy and action plan for what higher education should be like in Bangladesh by the year 2020.

62. The long term strategy should be constructed through answers to the following key questions:

##### Questions of System Relevance

- How can the system be made to contribute to increased economic competitiveness and the needs of technological development and globalization?
- What changes should be introduced to increase the flexibility and responsiveness of higher education to changing economic patterns?
- How will the composition of enrollments and the content of training programs be aligned more closely with emerging economic and occupational demands?
- What should be done to achieve a productive yet affordable research capacity focused on the solution of Bangladeshi problems?
- How can the system cope with a vastly expanded eligible population pressing for equal access to higher education?
- How will the system grant equal access to all economic and social groups?

##### Questions of Effectiveness

- What will be done to overcome the corrosive criminalization of higher education?
- How should system governance and administration be reformed to achieve greater performance, accountability and efficient resource use?
- How can quality be raised across the board at a feasible continuing cost?
- How should examination systems be reformed to stimulate acquisition of analytical and problem-solving skills?

##### Questions of Costs and Efficiency

- What will be done to broaden the financial base of the system, including greater reliance on beneficiary financing and expansion of private education?
- How will the system take advantage of technological changes in communications and adopt innovative ways to transfer knowledge to students more efficiently?<sup>29</sup>
- How to introduce incentives for avoiding wastage and saving funds for priority purposes?

<sup>29</sup> The Internet and World-Wide Web are being used effectively in advanced countries for in-service up-dating and upgrading of teachers at all levels. See Ann Bradley, "Building a Better Teacherforce," *Education Week*, Vol. XVIII No. 5, October 1998, pp 45-47; or Ron Owston, *Making the Link: Teacher Professional Development on the Internet*, (Heinemann, 1998), and several web sites, e.g., the Mathematics Learning Forum <[nross@edc.org](mailto:nross@edc.org)>, Tapped In, <[www.tappedin.org](http://www.tappedin.org)>, International Netcourse Teacher Enhancement Coalition at [www.concord.org](http://www.concord.org); and TeachNet at [www.teachnet.org](http://www.teachnet.org).

## I. THE VISION FOR 2020: OUTWARD LINKAGES AND GREATER RESOURCE MOBILIZATION

63. By 2020 Government expenditures should have been focused increasingly at welfare expenditures on the lower levels of the system. Upper levels of education should be financed through greater cost sharing with beneficiaries. Higher education will thus become less dependent on government financing and will mobilize significant resources outside public sources (e.g., cost-recovery, revenue generation activities). Government should promote the growth of private higher education so that by 2020 at least one third of university education and one fourth of higher technical education is provided by private institutions. Higher education will also have ended its isolation by establishing better linkages with markets and the world. Within Bangladesh higher education will have close links with economic markets such that the composition of enrollments and course contents respond to changes in demand. Outside Bangladesh higher education will have tapped into world-wide knowledge generation and applications by using networks and information technology. By 2020 a revitalized and strengthened University Grants Commission will generate strategic information on the system and play a key role in allocating public resources to higher education on the basis of performance. The National University will have raised the quality of degree colleges substantially through rationalization, development of a rigorous accreditation system and widespread use of information technology. Information technology will make independent study much more of the norm: the general population will have ready access to continuing education or alternative degree programs through the auspices of the Bangladesh Open University. Well before 2020 criminal violence spawned by political activities will have been eliminated from campus.

64. The main challenges to realization of the vision for 2020 include:

- **Overcoming problems of external efficiency of the system.** Distortions in the allocation of students by field of study, including only 2% of bachelors degrees in 1996 from technical fields; structural rigidities that impede the flow of funds to open, close, expand and contract courses in response to market demand; inadequate research output (that consumes only about 0.5% - 1.5% of university budgets). Inadequate support for poor students is also an issue. A 1996 review estimated that poor households receive only 15 percent of public spending on higher education, the rest - 85% - being allocated to the non-poor households. Female students make up only one fourth of enrollments.
- **Substantially improving sub-sector management.** Within universities governing bodies tend to be dominated by teachers and lack outside representation from guardians and employers. Vice-chancellors have few resources to supervise staff, allocate resources and hold departments accountable for funds spent. Department chairpersons, rotated routinely, have little if any authority over teaching staff. The UGC is also weak in enforcing standards and in holding institutions accountable for the funds received.
- **Issues of quality.** University managers complain universally about the absence of staff development programs for keeping staff up-to-date. Most institutions lack information technology and international linkages. Salaries account for about three-fourths of all spending at university level, yet salaries are reportedly low which leads to multiple employment and reduced dedication to teaching. The proliferation of degree colleges, with questionable supervision by the National University, has eroded quality and led to a third rate system of higher education. Class sizes average 70 students in degree colleges and teaching staff are reportedly below standard in subject matter knowledge and teaching skills. Teaching materials are in short supply. The examination system favors academic themes easily measured through a traditional essay-type system.
- **Managing costs and efficiency.** Low expenditures per student account for much of the low quality at degree colleges. Unit recurrent expenditures in government degree colleges were only 13% the level of universities. Per student expenditures in non-government degree colleges were only half that, (i.e., under 6% of the cost per student in public universities). The allocation of funds within the system tends to be based on precedent or influence, not per capita averages by field of study. Other signs of

inefficient use of resources are wide variations in costs per student, underutilization of facilities in some degree colleges and low weekly teaching loads. Moreover, the beneficiaries of higher education tend not to share the costs. University tuition charges are less than 1% of the costs per student and have been declining. Government pays about 95% of total public university costs. Finally, conditions imposed by the government on private universities are onerous — including excessive capitalization and land acquisition requirements — and discourage their development.

*Some Basic Principles for the Recommended Strategy*

65. The recommended strategy is based on the following principles:

- **Resource Constraints and Mobilization.** One of the central messages of this Review is that in a resource constrained environment (see Volume I, Education Finance) any expansion of capacity (especially in colleges, polytechnics and universities) inevitably means further erosion of quality, already much too low everywhere by universal admission, unless there is both significant resource mobilization from non-government sources and significant efficiency improvements in current public provision. Expansion is desperately needed, but to succumb to the temptation to pursue it is certain to compromise the even more important objective of reversing the erosion of quality which everywhere is a much more demanding task. Quantity without quality is the prescription for a national disaster. Quality without quantity is at least a possible basis for survival and one on which to build. Meeting even the minimal quality goals beyond basic education will require resource mobilization from non-public sources. Bangladesh has no choice in this unless it wishes to muddle through with things as they are now — which is to set the nation up for failure and its people for continued poverty.
- **Cost Recovery is Equitable in Higher Education** (and not at lower levels). Contrary to common belief, cost recovery at higher levels of education actually supports the achievement of greater equity. As pointed out earlier in this paper and in Volume I, the beneficiaries of higher education tend to be persons from the comparatively wealthier segments of society. They can afford the costs of better preparation for entrance to higher education and can afford the opportunity costs of attendance — i. e. not to work while studying. The poor and extremely poor, almost invariably, have been selected out of the education system before higher education starts. This phenomenon applies to Bangladesh as well as other countries. Second, higher education confers enormous benefits that are captured mainly by the individuals through increased income and living standards following graduation. For these equity reasons cost recovery from the direct beneficiaries of higher education is appropriate (see Volume I, Education Finance, Section D). The equity effects of cost recovery can and should also be enhanced by combining cost recovery through tuition and other fees with scholarships for more underprivileged students based on means tests. Cost recovery, it should be added, also helps achieve efficiency objectives. Students who have to pay for their education tend to value it more highly and complete their studies in less time than if it is cost-free without limits.

It is important to be clear that the Review does not recommend full cost recovery in public institutions. Even in countries with strong policies on cost recovery for public sector institutions the revenue mobilized does not typically exceed a third of total costs. (In private universities, of course, tuition payments may well cover 100% of the costs). Targets for cost recovery need to be established for public universities in Bangladesh. It would be most appropriate to phase in the introduction of cost recovery over time to meet the revenue mobilization objectives.

- **Methods of Cost Recovery.** Deciding on the most appropriate methods of cost recovery from beneficiaries requires careful and extensive study. Some of the options include (a) tuition and other fees, e.g., higher seat rents in the residential halls, in combination with scholarships for needy students; (b) a graduate tax of some kind, (c) an income tax system for graduates, and (d) tuition increases along with access to loan funds. One method that has gained currency in several countries (Australia and the U.K., for example) are income contingent loans. These loans usually specify that a

certain percentage of one's future income will be recovered rather than an absolute amount. If there is no income, there is no repayment. If income is high, repayment is high. The advantages of this method are that repayment is proportional to income, it should prove fairer and less burdensome to students after they graduate. Administration of an income contingent loan scheme is difficult and works best in countries with universal social security and income tax systems. A question has been raised on whether such loans would yield much return given high unemployment rates prevailing for university graduates in Bangladesh. That is a fair question and needs further investigation, but it does not vitiate the underlying rationale for student loans. Another question is whether the government or banks should administer student loans. On that question the international evidence is categorical: banks operate student loan systems much better than governments. The public sector may, however, have to subsidize the administrative costs of loan schemes. In general student loans make tuition payments and cost recovery more acceptable and feasible.

- **UGC Role.** The UGC has not been able to carry out its charter because of inconsistencies with the University Law of 1993 that grants considerable autonomy to individual public universities. In particular, it has not been able to exercise due authority over the allocation of financial resources in the sub-sector. The UGC has not been able to play a key role in the management of the higher education sector as is done by similar organizations elsewhere, e.g., in India and the U.K. This review recommends that the UGC be given increased authority. Specifically, it is recommended that the UGC receive a clear mandate to:
  - Establish in collaboration with stakeholders minimum standards and norms for university education
  - Distribute resources among the public universities on the basis of those norms;
  - establish incentive schemes, i.e. performance-based payments; and
  - allocate rewards and punishment based on the performance norms.

If the UGC is going to remain powerless at present, it would be better to close it down or turn it strictly into a monitoring organization, but not to pretend that it has a role to play in sector management and rationalization.

- **Regulation of Private Universities.** Most interlocutors in the public sector feel that the government is not overregulating private universities. They point to the rate of growth of enrollments in private universities as proof that private universities are thriving.<sup>30</sup> The interest of the government in regulating private universities is to ensure that minimum standards are met and that students are not exploited. Upon recent investigation the UGC found that several private universities have not achieved the standards they promised on getting approval. Intake standards are reportedly lower than public institutions, i.e., less than HSC. Many private universities are extremely weak in terms of teaching space, library and laboratory facilities. Moreover, private universities tend to have few full-time teaching staff but instead use staff on a part-time basis from public universities. The leaders of public institutions say this parasitic relationship hurts their teaching.

Still, a strong case can be made that private universities are overregulated, or at least the government's regulation is misplaced. Current regulations emphasize whole inputs: approval of staff (which is excessive in the number of positions that need government concurrence); deposits to indemnify students against premature closure; availability of land and buildings within five years. Some of this is necessary, particularly the inputs necessary for quality teaching, e.g., qualifications of staff, adequate teaching space, library and laboratory facilities. The land requirement is particularly onerous for institutions trying to establish themselves in Dhaka where land prices are almost prohibitive. It is not clear why appointment of key staff must be regulated. Among other things, this opens up possibilities

---

30 Indeed, enrollments in private universities have grown from zero in the early 1990s to the equivalent of about 7.5% of enrollments in public universities in 1997.

of political influence and interference. In fact, availability of own teaching land and facilities is not really necessary for appropriate university teaching. Long term leases as often accepted in other countries as satisfying the government's interest — provided the space is sufficient and enough books and equipment are available to students.

The main point is not whether government should regulate private universities. They should. The point is what to regulate. The government should move much more and increasingly in the direction of measuring outputs from the system, rather than inputs. Output standards can be defined through mutual collaboration, e.g. performance of graduates on standard examinations, and the government's efforts could be focused on these. Institutions that fail to meet the output standards, and fail to make necessary improvements, could be closed. Ultimately, the acid test on outputs is degree of absorption in the labor market; that is, the market will decide.

It is in the interest of society and the government to encourage the establishment and growth of a vibrant private sector in university education. Barriers to that growth should be dismantled and new ones resisted.

- **Performance-based Allocations.** It is common for educational institutions to receive government subventions regardless of the use and outcomes of the subsidies. Bangladesh is no exception. At present budget allocations to universities tend to be based on history and influence of the administration, or on inputs (teacher salaries, equipment, utilities) and not on the outputs (student enrolled for one year or graduates) and products realized (e.g., research publications). The Review recommends that the government would achieve better value for its investments by shifting the balance in allocation criteria towards output measures in higher education (as well as in other subsectors). In other words, reward good performance and penalize poor performance. The indices would need to be worked out on the basis of careful study. However, they might include enrollments by field, completion rates, graduates produced by field, performance of graduates on standard exit examinations, volume and relevance of research produced, extension work completed, etc. Normative financing is one type of performance-based allocations. In addition special incentive rewards could be given for reaching special standards in predetermined areas, or sanctions applied for not meeting minimum standards.
- **Recruitment of Teaching Staff.** The UGC has prepared a set of standards for universities to follow in appointment of teaching staff, although these are not followed in many cases. The Review recommends consideration for the establishment of a University Services Commission to take over the selection of staff. Admittedly this is a second best solution to reduce political influence in teacher appointments, and risks the creation of another bureaucracy. The best solution rests with universities themselves. Any reasonable university structure would get rid of political interference in appointments and ensure that strong academic standards were met.

66. The following table sets out some ideas on a possible strategy for achieving the vision for higher education in 2020. The main strategies are to use central and intermediary organizations to leverage solutions; to make a concerted attack on the intractable problems of universities in terms of student violence, unproductive governance and lack of cost recovery; and to use the NU and BOU to address low quality in degree colleges. More specifically, Table 2.5 presents six policy objectives and means/steps to accomplish them. The key objectives are to: (1) overcome the corrosive criminalization of higher education; (2) establish a more effective system of governance and management of higher education; (3) mobilize non-governmental resources for higher education through cost recovery and efficiency measures; (4) raise the quality of teaching and research in university education; (5) rationalize the system of degree colleges for quality improvement; and (6) achieve equal access to higher education for all economic and social groups. The measures recommended to achieve these priority objectives are consistent with the provisions of the Fifth Five Year

Plan and the proposed National Education Policy, except for the issue of expansion of public universities through establishment of twelve new universities of science and technology.

**Table 2.5: Strategic Objectives and Means for Higher Education**

Objectives	Means
<p><b>1. Overcome the corrosive criminalization of higher education .</b></p>	<ol style="list-style-type: none"> <li>1. Obtain collaboration of political parties to the existing civil consensus on decriminalization of the campuses; development funds for improvement of each university should be tied to commitment and compliance with agreements to eliminate criminalization and excessive politicization of campus operations.</li> <li>2. Reduce the number of elections, which divert attention from academic affairs, and introduce some minimum academic performance criteria to qualify for competition in elections.</li> <li>3. Change the basis of student unions from residential facilities to departments, and establish merit as the basis for participation.</li> <li>4. Establish a charter of student rights and responsibilities.</li> <li>5. Update and enforce the code of teacher conduct.</li> </ol>
<p><b>2. Establish a more effective system of governance and management of higher education</b></p>	<ol style="list-style-type: none"> <li>1. Merge the UGC and BIT council into an effective organization, including: <ul style="list-style-type: none"> <li>• Power to negotiate and receive a lump sum, and to allocate resources according to objective criteria.</li> <li>• Greater authority to accredit sub-units within universities/ITs.</li> <li>• Power to sanction non-compliant institutions.</li> <li>• Greater capacity to identify and analyze problems and issues in higher education.</li> </ul> </li> <li>2. Change the university statutes <ul style="list-style-type: none"> <li>• Introduce significant outside (civil) representation on university syndicates.</li> <li>• Strengthen the management role of the vice chancellor <ul style="list-style-type: none"> <li>• Appointed, not elected</li> <li>• Full time secretariat to enable supervision of faculties and departments</li> <li>• Power to allocate funds</li> </ul> </li> </ul> </li> <li>3. Better internal use of university resources <ul style="list-style-type: none"> <li>• Introduce normative<sup>31</sup> criteria for allocation of resources within universities.</li> </ul> </li> </ol>

*Continued*

31 Normative financing, by definition, is the process of paying for education based on specified criteria. These criteria or norms are usually the average cost per student ("unit costs"). Norms for unit costs are, of course, different by field of study (e.g. agriculture, medicine, engineering and science, arts, law, etc.) The norms include both teaching and non-teaching expenditures and are typically averaged across the nation. The unit costs can be differentiated between undergraduate and graduate students. A norm can be established for research costs and added into the unit cost formula. Norms can also incorporate variations in cost of living across geographical locations. The various norms are combined into a formula for calculating a lump sum allocation per institution based on the number of students by field of study. In addition, normative financing can be used to allocate funds from a block grant among the various faculties and departments within a university. Normative financing is widely practiced in higher education, including in Europe (The Netherlands, Hungary, Romania), various state systems of higher education in the U.S., and in New Zealand and Australia. The advantages of normative financing methods are that it (1) reduces inequalities in allocations across universities, (2) gives incentives to institutional managers to economize and reduce costs per student, and (3) provides incentives to increase enrollments.

Continued Table 2 5

Objectives	Means
	<ul style="list-style-type: none"> <li>• Develop greater flexibility in staff contracting, including introduction of part time and adjunct professors.</li> </ul>
<p><b>3. Mobilize resources from non-public sources to overcome chronic underfunding.</b></p>	<ol style="list-style-type: none"> <li>1. Institute cost sharing among beneficiaries           <ul style="list-style-type: none"> <li>• Prepare a resource mobilization plan with wide participation</li> <li>• Seek consensus with student groups about raising tuition<sup>32</sup> in parallel with loan funds, scholarships, and better teaching conditions.</li> <li>• Use university resources to raise outside resources through rent, etc.</li> <li>• Contract research centrally with part of the income accruing to the institution.</li> <li>• Place the BOU on a self-financing basis through enrollment and examination fees from students.</li> </ul> </li> <li>2. Strengthen the provision of private education           <ul style="list-style-type: none"> <li>• Allow public financing of students in private education for cost-saving and equity reasons.</li> <li>• Ease the restrictive regulatory framework on private higher education, including the approval of appointments and the land requirements</li> <li>• Approve as new private universities those among the dozen that have applied and have been recommended by the UGC.</li> <li>• Establish an association of private universities, give it a place on the UGC governing council, and assist its development eventually into an accreditation organization for private universities.</li> <li>• Allow tax breaks for contributions to private universities.</li> </ul> </li> <li>3. Introduce efficiency measures to save public expenditures on higher education           <ul style="list-style-type: none"> <li>• Limit the growth of publicly subsidized enrollments in public colleges and universities.</li> <li>• Channel excess demand into private colleges and universities with the provision of additional scholarship funds for needy students; remove constraints on private institutions.</li> <li>• Expand existing institutions rather than create new ones (e.g., expand BITs rather than create new universities of science and technology).</li> <li>• Consolidate degree colleges to achieve economies of scale.</li> </ul> </li> </ol>
<p><b>4. Raise quality of teaching and research in public university education .</b></p>	<ol style="list-style-type: none"> <li>1. Institute key institutional changes that support quality improvement           <ul style="list-style-type: none"> <li>• Professional bodies to be placed in charge of setting quality standards where possible.</li> <li>• UGC to accredit departments based on achievement of performance standards.</li> </ul> </li> </ol>

Continued

<sup>32</sup> An open question is whether the funds likely to be raised through increased tuition would be worth the effort required to overcome student resistance. Efficiency and equity reasons suggest that substantial benefits would accrue from cost recovery. The resources thus raised should be spent on things that improve access for poor students and improve directly the quality of instruction (e.g., Internet access, books, and updating of program content).

Continued Table 2 5

Objectives	Means
	<ol style="list-style-type: none"> <li>2. Introduce reforms in teacher recruitment, development and incentives <ul style="list-style-type: none"> <li>• Establish a University Services Commission for teacher recruitment and promotion.</li> <li>• Provide funds for teacher upgrading and updating.</li> <li>• Hold teachers accountable for performance.</li> <li>• Establish wide access to Internet for updating of staff and students.</li> </ul> </li> <li>3. Provide greater financial support for critical inputs <ul style="list-style-type: none"> <li>• Finance the development of quality improvement plans for interested institutions.</li> <li>• Provide funds on a competitive basis for equipment, journals, books.</li> <li>• Allocate resources on a normative basis according to average costs by field (so as to eliminate pockets of underfunding).</li> </ul> </li> <li>4. Provide greater financial support for research <ul style="list-style-type: none"> <li>• Provide financial support for local professional journals.</li> <li>• Establish competitive fund with peer review to support research proposals based on merit.</li> <li>• Establish other incentives for staff to engage in research (e.g., performance conditions for promotion, etc.).</li> <li>• Implement the proposed Bangladesh Education and Research Net (BERNET) through UGC.</li> </ul> </li> </ol>
<p>5. Rationalize the system of degree colleges for quality improvement .</p>	<ol style="list-style-type: none"> <li>1. Establish criteria by which to assess institutional performance.</li> <li>2. Make a systematic evaluation of the strengths and weaknesses of the present system according to the institutional performance criteria.</li> <li>3. Reform the examination system to encourage higher order skills, e.g., problem-solving rather than rote mastery of factual material.</li> <li>4. Strengthen the accreditation functions of the NU to build up or weed out non-performing institutions; consider the establishment of zonal offices for this purpose.</li> <li>5. Provide quality improvement services, including distance teaching more systematically for in service teacher training in collaboration with BOU</li> <li>6. Establish centers of excellence in key fields based on honors colleges in regional headquarters.</li> <li>7. Establish a competitive fund to finance institutional improvement plans.</li> <li>8. Establish incentives to consolidate institutions to achieve minimum critical mass.</li> </ol>
<p>6. Achieve equal access to higher education for all economic and social groups .</p>	<ol style="list-style-type: none"> <li>1. Establish monitoring indicators for socioeconomic background of students.</li> <li>2. Make a plan for increasing the participation of women and economically disadvantaged youth in higher education.</li> <li>3. Shift stipends from merit to needs-based.</li> <li>4. Provide additional physical facilities and make other investments to enable increased female enrollments</li> </ol>

**Further Studies and Research Needed**

67. The following issues need more in-depth analysis:

- In-depth analysis of problems and issues in degree level institutions including analysis of enrollments by field of specialization; content of teaching programs; costs, financing and sources of revenue; outputs in terms of examination performance for various types of institutions; quality indicators; management practices and difficulties.
- Analysis of examination practices in both universities and degree colleges and their effects on quality and relevance of learning; identification of specific areas in need of reform.
- Analysis of the socio-economic backgrounds of the current student population in public universities and colleges of all types.
- Tracer studies on graduates from higher education, particularly in science and technology.
- Audit of management functions in universities to identify areas for reform and greater effectiveness.
- Feasibility of introducing some form of student loans in conjunction with increased cost recovery from beneficiaries.

**Investment Implications of Reform Measures in Higher Education**

68. The following kinds of investment support may be needed to help carry out reforms in higher education:

- Technical assistance for the UGC and the NU to strengthen their activities; study and prepare reform proposals on new university statutes; set up a university services commission; reform the examination system; plan financially for a self-sufficient BOU; prepare resource mobilization plans for universities; and develop a normative financing model to rationalize expenditures among the various institutions and faculties.
- Fellowships for upgrading teaching staff.
- Program for expansion of graduate education within universities in critical areas to increase the supply of qualified teaching staff for degree colleges.
- Preparation of comprehensive networking programs to give access for staff and students to the Internet for academic purposes.
- Establishment of a fund for upgrading universities based on individual long term development and investment plans, to be awarded on the basis of competition and review by application of rigorous criteria.
- Establishment of a fund for improvement of quality in degree college based on individual applications containing institutional improvement plans. Such a fund could finance staff development, equipment, journals, books, and specialized facilities (laboratories, libraries).
- Establishment of a fund for research, based on competitive applications and peer review.

## ANNEX

### A. STATISTICAL PROFILE OF UNIVERSITIES

**Table A-1a: Public Universities in Bangladesh, 1997**

University	Faculties	Departments	Students	Teachers	Students per Teacher	Students per Employee
University of Dhaka	10	41	19,400	1,247	15.5	5.5
University of Rajshahi	6	37	14,240	656	21.7	4.8
Bangladesh Agricultural University	6	41	4,300	396	10.9	2.0
Bangladesh University of Engineering & Technology	5	16	5,060	424	11.9	4.3
University of Chittagong	6	29	11,370	483	23.5	6.6
Jahangirnagar University	3	20	4,890	337	14.5	3.9
Islamic University	5	15	5,010	170	29.5	11.5
Shahjalal University of Science & Technology	5	13	1,970	188	10.4	8.2
Khulna University	3	11	1,070	114	9.4	5.3
<b>Total/Average</b>	<b>49</b>	<b>223</b>	<b>67,280</b>	<b>4,015</b>	<b>16.8</b>	<b>4.9</b>

Excluding the National University and Bangladesh Open University  
 Source: UGC, Brochure, May, 1998, BANBEIS, 1998, Section IV, Table 1a

**Table A-1b: Public Universities in Bangladesh, 1997 (Continued)**

	Available Accommodation		Recurrent Cost per Student (Tk)	Output of Graduates and Post-Graduates		
	Students (% T)	Teachers (% T)		Bachelors	Masters	MPhil & PhDs
University of Dhaka	52.9	43.3	28,240	4,690	6,770	12
University of Rajshahi	65.7	33.4	25,770	4,260	5,270	26
Bangladesh Agricultural University	97.3	61.9	72,140	730	320	12
B.U.E.T.	52.6	37.0	36,880	540	70	4
University of Chittagong	28.2	23.0	23,370	1,700	2,910	14
Jahangirnagar University	84.1	43.6	33,820	290	480	5
Islamic University	18.2	23.5	12,390	470	200	3
Shahjalal University of Science & Technology	29.7	18.6	21,340	280	190	
Khulna University	51.3		29,630	150		
<b>Total/Average</b>	<b>53.2</b>	<b>37.2</b>	<b>31,220</b>	<b>13,430</b>	<b>16,200</b>	<b>76</b>

Source: UGC Brochure and Annual Report, 1997.  
 Note: Numbers may not add due to rounding

## Enrollments

Table A-2: Rate of Increase and Decrease of University Students, 1987-97

Year	Students	Increase from Previous Year	Increase (percent)
1987	42,885	1,587	3.8
1988	45,317	2,432	5.4
1989	47,032	1,715	3.6
1990	47,888	855	1.8
1991	51,861	3,937	8.3
1992	52,722	816	1.7
1993	57,934	5,212	9.9
1994	62,095	4,161	7.2
1995	65,251	3,156	5.1
1996	66,461	1,210	1.9
1997	67,300	820	1.2

Source: UGC Annual Report, 1996; Brochure, May, 1997.

Table A-3: Enrollments by Institution, 1994-97 (Thousands of Students)

University	1994	1995	1996	1997	Increase (Decrease) 1994-97	
					Thousands of Students	Percent
University of Dhaka	22.9	22.4	20.6	19.3	(3.6)	(15.7)
University of Rajshahi	13.2	13.9	14.5	14.2	1.0	7.6
Bangladesh Agricultural University	5.0	5.0	4.8	4.3	(0.7)	(16.3)
Bangladesh University of Engineering & Technology	4.5	5.0	5.0	5.1	0.6	13.3
University of Chittagong	8.1	9.7	10.1	11.4	3.3	40.7
Jahangirnagar University	3.8	4.1	4.5	4.9	1.1	28.9
Islamic University	3.2	3.2	4.6	5.0	1.8	56.3
Shahjalal University of Science & Technology	1.0	1.1	1.5	2.0	1.0	100.0
Khulna University	0.6	0.7	0.8	1.1	0.5	83.3
Total/Average	62.1	65.3	66.5	67.3	5.2	8.4

Excluding the National University and Open Universities

Source: UGC Annual Report, 1996; Brochure, May, 1997.

69. Facts highlighted in the above tables include:

- Enrollment actually declined at two key institutions: Dhaka University (this was probably an intentional response to student unrest and violence) and Bangladesh Agricultural University.
- Over five years (1992-1997) university total enrollment increased 27.6 percent, or an average of 5.5 percent p.a.
- About one fourth of the total enrollment in universities is female.
- The majority of students (83.2 percent) was enrolled in six general universities. The remainder (16.8 percent, or 11,330 students) were studying in three specialized universities, viz., agriculture, engineering and the science and engineering university.<sup>33</sup>

<sup>33</sup> National totals should also take into account the enrollment in engineering subjects at the four Bangladesh Institutes of Technology (BIT).

- In 1996 approximately 36 percent of the students in all universities were studying in science faculties (23,800 students out of 66,500).

**Table A-4: Enrollment by Public University and Field of Specialization, 1997**

Faculty	DU	RU	JU	CU	BUET	BAU	IU	SUST	KU	Total
Arts	4591	4671	1228	2854			1071			14414
Social Science	3453	3347	1360	2689			2388	758		13995
Sciences	4222	3085	1726	3001		217	1210	900		14334
Commerce	2302	2676		2395			776		170	8319
Law	2302	465		279						3046
Humanities							732			732
Agriculture & Related						2567				2567
Engineering					4584					4584
Institutes	4290			147						4437
M.S., M.Phil/PhD				485		1733	105	96		2419
<b>Total</b>										<b>68847</b>

Note: "Sciences" includes science, biological science and pharmacy. "Agriculture & related" includes agriculture and technology, veterinary, livestock, fisheries and agriculture economics; "Engineering" includes civil, mechanical, electrical and architectural "Other" includes non-identified faculties

Source: BANBEIS, 1998, Section IV, Table 4

**Teachers**

70. Overall, the average number of students per teacher is relatively high. That is, teachers are well utilized from an efficiency point of view. The trend has been to reduce the number of students per teacher in several universities, including Dhaka, Rajshahi, BAU and the Islamic Universities.

**Table A-5: Students per Teacher, 1994-97**

University	1994	1995	1996	1997
University of Dhaka	19.2	18.6	17.0	15.5
University of Rajshahi	23.1	23.3	22.1	21.7
Bangladesh Agricultural University	12.5	12.7	12.2	10.9
Bangladesh University of Engineering & Technology	10.0	11.8	12.5	11.9
University of Chittagong	18.0	22.0	20.5	23.5
Jahangirnagar University	13.3	14.0	13.8	14.5
Islamic University	34.5	29.1	33.2	29.5
Shahjalal University of Science & Technology	12.0	9.7	8.5	10.5
Khulna University	11.9	9.4	9.1	9.4
<b>Total/Average</b>	<b>17.4</b>	<b>17.8</b>	<b>17.1</b>	<b>16.8</b>

Excluding the National University and Open Universities

Source: UGC Annual Report, 1996; Brochure, May, 1997

71. There is a high degree of variance among general universities. Excluding Khulna University, which only started recently, the range is from 14.5 at Jahangirnagar University to 29.5 at the Islamic University. The University of Dhaka enjoys a privileged position, with only 15.5 students per teacher compared with 23.5 at

Chittagong and 21.7 at Rajshahi. The range in students per teacher among the general universities seems difficult to explain if consistent criteria were being used for allocation of teacher posts among the institutions.

72. Between 1994 and 1996 the number of professors increased from 1005 (28 percent of the total) to 1887 (30.5 percent of the total). About 40 percent of the teaching staff held Ph.D. degrees, and 33 percent held other higher degrees.

### Recurrent Expenditures

73. Per student recurrent costs by institution have evolved as follows over the past several years:

**Table A-6 : Recurrent Cost per Student (Current Taka 000s)**

University	1994	1995	1996	1997	Increase/ (Decrease) 1994-97 (Tk 000s)	Percent Change
University of Dhaka	20.9	23.5	25.9	28.2	7.3	34.9
University of Rajshahi	20.1	20.9	21.5	25.7	5.6	27.9
Bangladesh Agricultural University	51.5	53.5	63.2	72.1	20.6	40.0
B.U.E.T.	32.8	31.6	36.2	36.9	4.1	12.5
University of Chittagong	26.7	22.3	23.0	23.4	(3.3)	(12.4)
Jahangirnagar University	31.4	32.6	33.5	33.8	2.4	7.6
Islamic University	7.8	7.9	10.5	12.4	4.6	59.0
Shahjalal University of Science & Techn.	23.4	25.8	21.7	21.3	(2.1)	(9.0)
Khulna University			36.1	29.6		
<b>Total/Average</b>	<b>24.6</b>	<b>25.7</b>	<b>27.5</b>	<b>31.2</b>	<b>6.6</b>	<b>26.8</b>
Excluding the National University and Open Universities						
<i>Source: UGC Annual Report, 1996; Brochure, May, 1997.</i>						

74. Highlights of the above table include:

- Between 1996 and 1997 overall average unit recurrent expenditures increased by 13.6 percent.
- Unit recurrent costs of higher education are about thirty times that of primary education and approximately twenty times that of secondary education.

### Outputs

**Table A-7: Success Rates Among Applicants for Degrees, 1992-96**  
(Percent of Examination Takers)

Examination	1992	1993	1994	1995	1996	1997
Graduate (Pass)	42.8	50.9	43.4	49.6	40.8	49.3
Graduate (Honors)	82.1	85.8	79.9	87.1	87.8	88.6
Post Graduate (General)	92.9	90.6	89.0	92.5	63.5	89.2
Graduate (Technical)	65.1	64.8	70.7	65.4	76.8	78.4
Post Graduate (Technical)	69.4	62.7	59.8	53.8	95.2	98.7
<i>Source: UGC Annual Report, 1997.</i>						

75. Over the past several years the universities have graduated more persons with master's degrees than with bachelor's degrees of all types. In 1997 the universities combined to produce 16,200 persons with master's degrees and 13,620 with bachelors degrees of all types. The bulk of the bachelor's degrees were produced in the degree colleges.

76. The very limited output of higher advanced degrees was striking in 1997. Only 76 Mphil and PhD degrees were produced that year. In 1996 the corresponding number was 1066.

77. In 1996, the most recent year for which data are available, showed that bachelor's degrees in technical fields (1913) made up less than 2 percent of the national total from all institutions; post graduate degrees in technical fields (356) made up only 1.3 percent of the total.

## B. UNIVERSITY GRANTS COMMISSION (UGC)

78. **Objectives and Functions.** The University Grants Commission was established in 1973 to act as an intermediary between the Government and universities. The basic purpose was to reinforce university autonomy by preventing the Government from dealing directly with any institution or group of institutions. According to the Presidential Order No. 10 of 1973, the UGC has the following main functions:<sup>34</sup>

- Assess the needs in university education and formulate development plans.
- Identify the financial requirements of the universities.
- Allocate operating and development funds from Government to the various universities.
- Evaluate implementation of development programs.
- Examine university development plans.
- Collect and publish statistical information on university matters.
- Advise the Government on establishment of new universities, or expansion of existing institutions.
- Advise the Government on proposals to grant the right to confer special degree awarding status on colleges.

79. The UGC has the right to visit universities for purposes of evaluating programs and making needs assessments.

**Table A-8 : UGC Organization and Functions**

Division	Functions
1. <b>Administrative</b>	<ul style="list-style-type: none"> <li>• Frame regulations and statutes of the UGC</li> <li>• Liaise with Government and universities</li> <li>• Manage and operate scholarship and fellowship programs</li> </ul>
2. <b>Planning and Development</b>	<ul style="list-style-type: none"> <li>• Formulate and supervise development plans for the universities</li> <li>• Evaluate development schemes submitted by universities</li> <li>• Formulate annual development programs (ADPs)</li> <li>• Supervise implementation of development projects</li> <li>• Collect and analyze statistical data on university education</li> </ul>
3. <b>Finance and Accounts</b>	<ul style="list-style-type: none"> <li>• Assess financial needs of universities</li> <li>• Control the expenditure of funds by universities</li> </ul>

*Continued*

<sup>34</sup> This and subsequent information is taken from the following source: 'Brochure,' University Grants Commission of Bangladesh, Publication No. 60, May, 1998 as supplemented by two interviews with the Chairman, UGC.

80. **Structure and Organization.** The UGC reports to the Minister of Education through the Secretary, Secondary and Higher Education. The UGC is composed of twelve members, including a Chairman, two full-time members and nine part time members (including three vice-chancellors by rotation, three professors of universities not represented by vice chancellors, the Secretary, Ministry of Education, a member of the Planning Commission and a representative at Secretarial rank of the Ministry of Finance). The UGC employs 150 staff organized in the four divisions shown above (Table A-8).

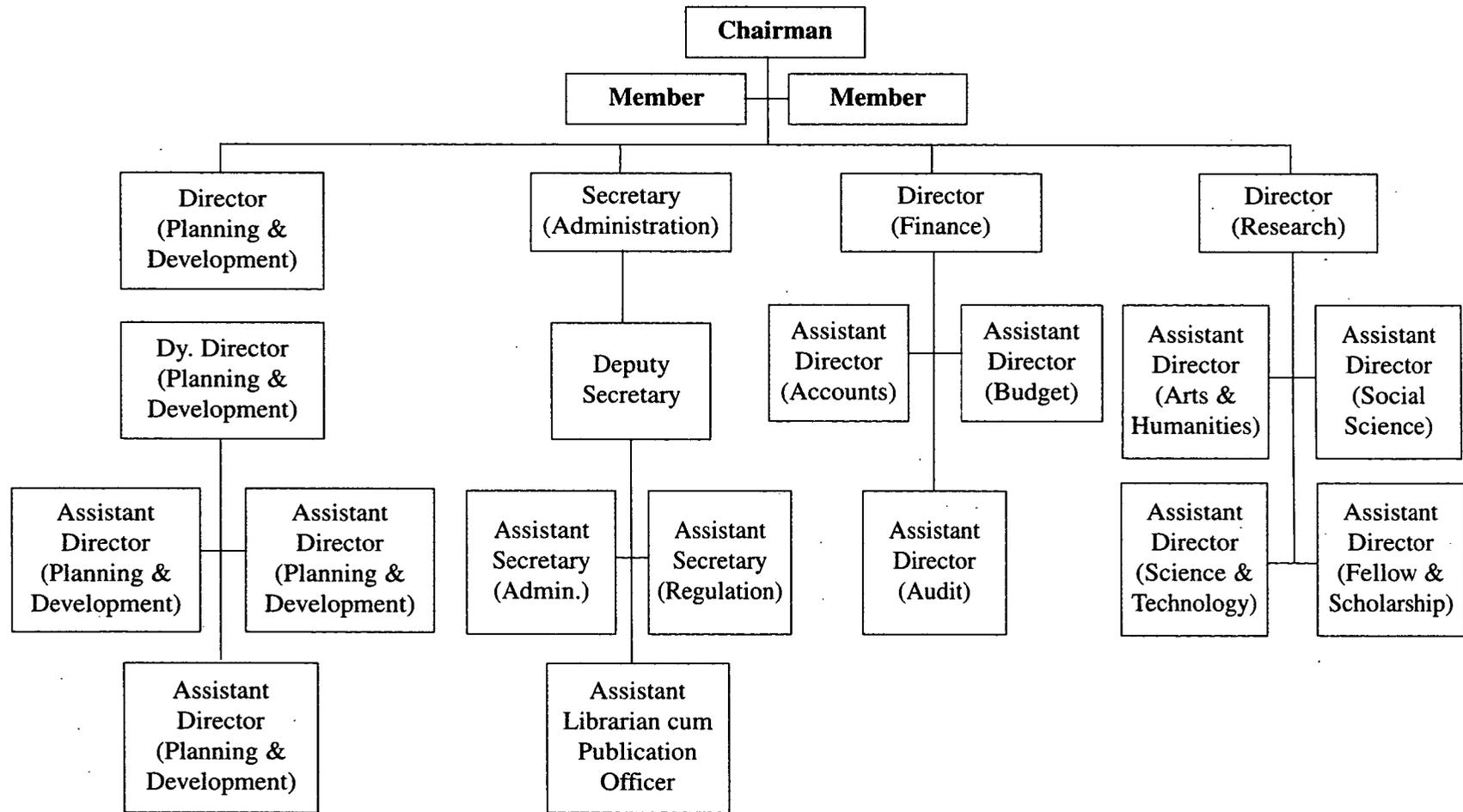
81. In addition, the UGC accommodates an Institute of Scientific Documentation with 35 staff. The Institute arranges and offers training courses on scientific instrumentation.

82. The UGC is establishing a resource center within the UGC for computer science and Internet programs for the purpose of training young teachers. It is also planning to establish a centralized library for use by all universities.

83. The UGC has been given increased responsibilities for monitoring and controlling the performance of private universities after their establishment under the recent revision of the Private University Act. Formerly, the UGC only evaluated the application for establishment of a new private university. The UGC is now expected to visit the private universities periodically and to assess whether the inputs (numbers of qualified teachers, library books, facilities, approved curricula) are being provided as planned and required.

84. The UGC plays an advocacy role on important issues in university education, e.g., chronic underfinancing of university education. It points out that university education absorbs only 16 percent of total recurrent costs, and that development expenditures have increased from about 8 to 14 percent of the total for education as a whole. Vis a vis the universities the UGC advocates that the universities raise their own resources through soliciting gifts from businesses, contract research, use of physical resources to generate rental income, etc.

Chart 1: Organogram of University Grants Commission



*Issues*

85. The UGC was not established originally with authority equivalent to similar organizations in other countries (e.g., UGC in the U.K. or in India). Consequently, it does not have the power necessary to require substantive changes in the university. It functions more as a coordinating body. Instead of making rigorous assessments of the strengths and weaknesses of each institution, and aggregating them into an overall analysis of the university sub-sector, the UGC administration takes the view that universities are competent enough to do their own assessments. On the issue of establishment of twelve new science and technology universities, on which the UGC's opinion was solicited by Government, the UGC took the position such major expansion was acceptable if the Government provides the funds. This ignores the likelihood that funds for expansion will be at the expense of adequately financing existing institutions, which have been starved for funds for decades.

86. The UGC only partly fulfills its mandate to collect statistics on the university sub-sector. Little or no data are available on enrollments by field of study or by year of study. Apparently universities do not wish to publish figures that would show the situation with regard to session jam, for example.

*Fifth Five Year Plan*

87. The Fifth Five Year Plan notes the key role played by the UGC in establishment of standards for university education and allocation of funds among institutions. However, it observed that "its control over (different universities) is found to be less effective or it has little authority/ability to maintain discipline, efficiency and academic values in the universities."<sup>35</sup> The Plan calls for a review in depth of the role of the UGC during the Fifth Plan with a view to making it a more effective organization, i.e., to introduce greater financial and administrative accountability of the universities through efficient supervision of their activities by the UGC. In terms of specific programs, the Plan calls for further development of the University Resources Center within the UGC and development of a computer network among universities through the UGC.

*Areas for Further Study*

88. Allocation criteria and practices of the UGC in distributing budget funds among the university, and similar criteria and practices used by key universities for distribution of funds within the institution.

**C. DEGREE COLLEGES AND THE NATIONAL UNIVERSITY**

89. The National University, established in 1992, serves two basic purposes. First, it is an affiliating university to rationalize and control degree-granting colleges. Prior to 1992 degree colleges were affiliated with one of the existing universities, which established syllabi, set and administered examinations and awarded degrees for students in the colleges. However, the universities were encumbered by their own activities and were not well equipped to supervise properly the affiliated colleges. The National University was established to take over and organize the affiliated colleges in all fields except agriculture, engineering and medicine.<sup>36</sup> As stated in the University's brochure, "The aim of the university is to promote higher education in colleges and to ensure and sustain its due standard. The immediate objective of the university is to organise and strengthen college administration as well as to improve the overall academic standard by updating the curricula and syllabuses and promoting professional quality of the college teachers through regular training programmes."

35 Section 20.12.6, *The Fifth Five Year Plan: 1997-2002*, Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.

36 The Ministry of Agriculture, the Bangladesh Institute of Technology Council and the Ministry of Health manage degree colleges in these fields, respectively.

90. Today, the National University has some 915 affiliated degree colleges. The distribution is shown in Table A-9

91. Second, the National University is a teaching university at the post-graduate level. As a teaching university it is subject to the University Grants Commission as any other university.

92. Just under 40 percent of the total degree colleges are public institutions (341). The rest are non-government institutions typically with public subsidies of about 80 percent of the salaries of originally established teacher posts. Over 700,000 students are enrolled in the affiliated colleges taught by more than 20,000 teaching staff. In sum, the National University oversees the education and training of 85 percent of the students undertaking higher studies for degrees.

93. The National University is governed as other universities in Bangladesh. The Prime Minister is Chancellor, the Vice Chancellor is appointed from a list proposed by the institution; the university is largely self-governing with the Syndicate the highest body and an Academic Council in charge of control of teaching programs.

94. The National University is organized according to the following components: (a) School of Undergraduate Studies; (b) Center for Post-graduate Education, Training and Research, which offers instruction in 10 disciplines; (c) the Center for Curriculum Development and Evaluation, which evaluates the syllabi and courses of colleges and updates their content; and (d) various Institutes, including the Institute of Humanities and Social Studies; the Institute of Liberation and Bangladesh Studies, and soon-to-be-established Institutes of Natural Science, of Life Science and of Development and Environmental Studies.

95. The main aim of the University is to set and improve teaching standards in the degree colleges. It accomplishes this aim through five basic functions:

96. **Recognition of New Colleges.** The National University must review and approve the applications of all degree colleges that seek Government recognition. It does this through its staff of 11 inspectors (1 head, four deputies and 6 assistants). The staff review applications in terms of minimum criteria for physical facilities, teaching staff, library and laboratory facilities. If the institution falls short, the staff can recommend approval contingent on making up any deficiencies within a specified number of years. As one administrator remarked, "If we were strict about initial criteria, there would be few colleges approved." Upon recommendation of the staff, the Academic Council grants provisional recognition for a period of three years, subject to reconfirmation based on performance of the institution. Approval allows the institution to admit students and have the students sit for examinations. It also enables the institution to apply for salary subsidies (80 percent of authorized teaching posts). Approvals for degree pass courses do not specify enrollment limits, but do set enrollment quotas and maxima for honors courses. Once the number of teaching posts is established, it is difficult to increase it later. Approval must be reaffirmed for all institutions each year. Institutions can be de-affiliated. This has been threatened and actually done in rare cases, but is very difficult and must be approved by the University Syndicate.

**Table A-9: Degree Colleges by Highest Degree Awarded**

Highest Degree Awarded	Number of Degree Colleges		
	Government	Non-Government	Total
Degree Pass	225	543	768
Degree Honors	54	12	66
Master's Degree	62	19	81
<b>Total</b>	<b>341</b>	<b>574</b>	<b>915</b>
<p>Note: The NU did not take over all colleges. Several prestigious colleges with historical ties to existing universities maintained their relationship. The University of Dhaka retains 38 affiliated colleges with over 15,000 students; the University of Chittagong has three affiliated colleges with 1200 students.</p> <p>Source: National University brochure</p>			

97. Between 1996 and 1997 over 100 new degree colleges were approved. The motivation for establishment of new degree colleges is mainly political. It affords a base or political foothold for political achievements. Accordingly, there is political pressure for approval and recognition of the new colleges. New colleges also respond to intense social demand for places in higher education. Rational geographic distribution of places is difficult and not normally a criterion for approval of new institutions.

98. **Oversight of Non-Government College Administration.** Once affiliated, the National University oversees the establishment of a Governing Body for the institution. The Vice Chancellor nominates the chair of the Governing Body, on which the University will also have its representative. When affiliated, the institution ceases to be private property, and becomes—in effect—owned by the Board of the institution and ultimately the government. The Board could not liquidate the assets of the institution and distribute the proceeds. They would revert to the Government. Non-government institutions have considerable freedom in terms of internal administration, level of fees to be charged (within limits imposed by the NU) and freedom on number of students to admit at the degree pass level and class sizes. The Governing Body, on which the NU has a representative, sets the annual budget, salaries and allowances for staff. Standards for staff recruitment are specified by the NU and the Governing Body in appointing new staff must follow appropriate procedures, including establishment of a Recruitment Committee with representation by NU. Contract staff can be fired by the Governing Body; dismissal of confirmed staff must have the approval of the NU. Non-government institutions must have their accounts audited annually. They have to follow prescribed syllabi.

99. **Regulation of Academic Matters.** The National University is active in defining admission procedures for honors colleges and in revising the teaching content for all programs. Admission to degree pass programs is virtually open, based on examination results in the SSC and HSC exams. Some selective colleges require written examinations, but this is the exception. However, the National University established in 1998 a uniform admissions system for all degree honors programs. The institutions, based on guidelines prepared by NU, prepare a written admission examination covering specified subjects. The exams are identified only by code numbers and, after grading by selected college teachers, are tabulated. No one can be admitted with marks less than 36 percent, regardless of HSC. Above this total, the admissions examination is weighted 40 percent towards admission and the HSC results 60 percent. College administrators are reportedly satisfied with the system because it takes pressure off them by individuals and politicians for circumventing the system. The examinations are given by different institutions at different times, within a window of about 20 days. This gives students the opportunity to apply to more than one institution or field of study. In addition, the NU introduced the requirement of annual examinations in all honors colleges. Progression to the next year of studies must be contingent on performance in the annual examination for the previous year of studies. The NU staff through committees of experts has also undertaken an extensive review of syllabi in all (about 30) degree programs, and have updated content based on modern practices.

100. **Professional Development.** The Act of Parliament that established NU emphasized its role in professional development and quality improvement in the affiliated colleges. The NU undertakes to improve the standard of teaching through its program of in-service teacher training. The NU facilities have the capacity to train 50 students in each of five disciplines for a total of 250 teaching staff being trained simultaneously. However, this capacity is limited by the lack of hostel facilities. Training programs are organized, mainly in subject matter content, for 46 days. Trainees are selected mainly from junior staff from lists submitted by college administrators. The total target group for professional upgrading is about 20,000 teaching staff, the majority of whom (about 90 percent) hold masters' degrees.

101. **Examinations and Awarding of Degrees.** The National University sets about 45 examinations each year for about 400,000 examinees annually. It sets the fees independently, and revenue from examination fees makes the institution virtually self-supporting.<sup>37</sup> Committees of selected senior college teachers set the

---

37 Except for capital expenditures on buildings, laboratories and libraries

content of the examinations under guidance from NU staff. Other selected college teachers then grade examinations. The examinations are processed manually and feature essay-type questions. Pass rates average 40-50 percent of those who take the examinations, including about 18 percent in first division and about 40 percent in second division. However, in 1997 pass results were lower (36 percent overall) owing to the introduction of English as a compulsory subject. Each pass degree examinee has four years to pass (five years for honors candidates) and is allowed two chances as an internal candidate and one as an external candidate. The National University publishes examination results by institution, so the public can make comparisons on the relative performance of degree colleges.

### *Overall Assessment and Issues*

102. **Control over Expansion.** In effect, there is little control over the expansion of the number of institutions, and little rational planning of their locations. The Ministry of Education can delay somewhat approval of new recognized colleges for salary subsidies, but cannot decline. Thus, enrollments have mushroomed, most of which eventually gets financed through Government.

103. **Responsiveness to Market Forces.** The system of affiliation does not engender flexibility in expansion and contraction of course offerings in response to student demand (which is a proxy for market demand.) Once approved and the number of teaching positions is fixed, it is not easy—virtually impossible—to change the allocation. Thus, enrollments in Islamic studies may have fewer and fewer students, while computer science can only take a fraction of the applicants for lack of additional teaching positions. Many colleges compensate by hiring additional staff for fields highly in demand from their own resources. More flexibility is needed to give freedom to college administrators to allocate resources within institutions in response to market forces.

104. **Quality Assurance.** One of the consequences of rapid expansion in enrollments at the degree level has been a dilution of quality of instruction. Infrastructure and teaching capabilities have not developed in proportion with enrollments. As a result, class sizes have increased sharply (and average about 70 students at present vs. a target of 50 students). There are insufficient qualified teachers, books, laboratory equipment and supplies. The progressive declines in examination results document the deterioration in quality. However, the examination system is relatively positive element in keeping at least minimal quality standards. The examination gives a focus for studies and motivates students to learn. The examination system is relatively well understood by all students and teachers. Generally the best students in terms of academic abilities get the better scores in the examination. Some screening device is needed to weed out performers from non-performers, given the policy of "open admissions" at degree pass level.

105. **Problems exist.** The system is open to some corruption and outside influence. More basically, it dictates the kind of knowledge that students must learn, predominantly the mastery of factual material, rather than analysis and problem solving. Still, given the size of enrollments and inadequate resources, the examination system does help define minimum standards and measure their achievement in an approximate way. Moreover, it offers the potential to begin introducing higher order cognitive skills in the academic process through reform of the examination system, and changes in syllabi and teaching practices.

106. **Effectiveness of the National University.** The National University is potentially well placed to leverage improvements in the quality of degree-level higher education. It sets and enforces quality standards. However, it faces several issues that affect its effectiveness.

107. **Dual Purpose.** The justification for the NU to open its own post-graduate teaching programs carries with it the seeds to distract attention from its core objective. It is not clear what comparative advantage the NU has for teaching programs, but these must not be allowed to overshadow its crucial role in raising standards in college education.

108. **Scale of the Problem.** The problems of degree colleges are massive. No single institution, no matter how effective, can hope to raise teaching quality easily in more than nine hundred dispersed, often small institutions. The NU implicitly has adopted a strategy of concentrating on honors degree colleges, which seems reasonable. Yet it has not thought through ways to make an impact on the broader problem. Similarly, it is difficult to imagine a national institution, located in one place, being able to supervise quality standards in the hundreds of degree colleges. Frequent visits are simply impossible. Some sort of decentralization may be necessary, perhaps in collaboration with other HEIs such as the Open University. Finally, raising teacher quality through short residential courses is not likely to make much of a dent quickly in the overall problem of inadequate teacher qualifications. At most, the University could train about 1250 of the 20,000 teaching staff per year, and that would be costly and take an almost superhuman effort. At this rate it would take 16 years to recycle the entire teaching staff. Instead, the University needs to consider innovative ways of raising quality, e.g., through dissemination of new teaching materials, distance methods to bring subject matter up to date, more modern media for demonstration of better teaching quality. The numbers involved would justify design of new ways to reach the target audiences on a recurrent basis, rather than once every sixteen years.

109. **Management Information and Examination Processing.** Because of its central role, the NU could and should be collecting statistical information for analysis of the problems associated with degree colleges. Apart from publishing examination results by college, it has little information. It could not provide information on enrollments by type of degree or field of study or on the number and qualifications of teaching staff. Moreover, processing of the examinations is done manually. This makes it difficult to get quick results and prevents the introduction of testing for other, higher order skills.

110. **Enforcing Standards of Accreditation.** The NU should be more forceful in requiring adherence to minimum standards, and should expand the standards to include minimum enrollment sizes, proper geographical distribution of facilities and even performance on examinations. This will be difficult, given the political motivation behind establishment of many colleges. Still, efficient use of scarce resources demands it.

#### D. BANGLADESH OPEN UNIVERSITY

111. The Bangladesh Open University (BOU) was established in 1992 based on earlier experience with the Bangladesh Institute of Distance Education in the mid-1980s. The BOU reports to the UGC and the Ministry of Education. The BOU has received support from various sources, including the Indira Gandhi Open University and the Asian Development Bank for infrastructure. The purpose of the University is to provide practical formal and non-formal education and training programs on a flexible basis via distance means to those who are not able to attend regular education institutions. Between 50-70 percent of the clientele of the University are women.

112. BOU offers a range of programs in a variety of fields, as follows:

- MBA and MEd. 1.5-2 years
- Degree 2 years
- Diploma 1-1.5 years
- Certificate 0.5-1 year

113. Based on an initial needs survey which identified 75 priority topics, six schools were established, including the Open School; Education (including a certificate in primary teaching and the B.Ed.); Social Science/Humanities/Languages; Business; Agriculture and Rural Development; and Science and Technology.

114. In addition to formal courses, short non-formal programs (not leading to certification) are given in subjects such as horticulture, pisciculture, social forestry, environment, drug prevention, and geriatrics.

115. BOU develops its own curricula and teaching programs with help of resource persons from public institutions. The Academic Council approves the programs. The BOU employs various delivery methods including: (a) self learning materials written in modular form; (b) audiocassettes; (c) use of radio and TV programs for a total of 40 minutes daily; and (d) tutorials. A Media Center is now under construction with financing from the ADB.

116. To assist its delivery of programs over the country the BOU has:

- 12 Regional Resource Centers (RRCs). RRCs are contact points of students for information, admission, registration, tutorial services, examinations, and results.
- 80 Local Centers (LCs) to supervise tutorial programs.
- Over 700 Tutorial Centers (TCs)—Twice a month tutorial classes are arranged for students of every program. TCs have been opened down to thana level. These are typically rented in colleges or universities or thana offices— at which 8-10 teachers hired for the purpose of providing direct student support weekly (usually on Fridays).

117. BOU has 82 teaching staff plus tutors.

118. Thus far the BOU has enrolled a cumulative total of about 125,000 students in its programs. On June 30, 1997 BOU had 36,000 students enrolled. This is expected to increase substantially as a result of the introduction of HSC studies in the Open School. Perhaps 50,000 students are expected to enroll in this course alone. (The Fifth Five Year Plan shows the enrollment of BOU as 105,000 students on December 31, 1996).<sup>38</sup>

119. Students pay nominal fees, but more than typically required in public institutions. Examples include Tk. 250-800 for SSC depending on subject; Tk. 700/semester for HSC; and Tk.1800/course for the diploma in computer science. There is no additional charge for teaching materials. The fees cover the equivalent of about 90 percent of the cost of the teaching materials, but none of the other costs.

120. Reportedly 50-60 percent of those taking examinations (set by the BOU staff) pass them. However, only perhaps 20-30 percent of those enrolled sits for the examination. Thus, the effective rate of successful completion of programs is extremely low, perhaps 10-20 percent of original entrants. It is not known at present what are the equivalencies of standards between BOU courses and those in the formal system.

### *Plans and Policies*

121. The Fifth Five Year Plan states that the media center of the BOU will be made fully operational during the Plan period, and its network of 12 regional centers and 81 study centers all over the country will be fully developed. In order to facilitate transmission of BOU's programs country-wide, the second channel of BTB will be used for distance teaching during the Plan period.<sup>39</sup>

### *Issues and Challenges*

122. **Financial self-sufficiency.** The BOU faces a major financial challenge when the funds provided by the Asian Development Bank are exhausted by the end of the year. Reportedly, the BOU budget will drop from Tk. 25 crore to Tk. 1.5 crore. The BOU has missed an opportunity to establish itself from the start on a self-financing basis, and is now faced with the prospect of cutting back on course offerings and of inability to print further textbooks. Given the vast number of students it enrolls, it should be able to price its courses both to stay within the reach of most of its clientele (and offer scholarships to the most needy students) and generate surpluses to finance its operations.

123. **Learning Effectiveness.** Another issue to be tackled is the low rate of effective completion of the courses. This is typical of most distance teaching, since it depends on students studying on their own.

38 Section 20.12, Table 20.6, *The Fifth Five Year Plan, 1997-2002*, Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.

39 *Op. Cit.*, Section 20.12.3

However, throughput of less than 20 percent (i.e., 30 percent take the examination and, of those, 60 percent pass) is unacceptably low. Although low completion rates are a characteristic of distance teaching worldwide, an analysis should be made of reasons for failure to master the material in Bangladesh, and appropriate steps taken to improve the teaching materials and delivery methods. Ample use should be made of programs developed in other countries that could be adapted easily to the Bangladeshi context.

124. **Technological Breakthroughs.** Another challenge is to adapt its programs to realize the benefits of emerging technologies. The Internet, e-mail and Teleconferencing, DVD and videodisc capabilities will transform distance teaching. Not all these technologies will be immediately relevant to Bangladesh for reasons of cost or the technical capacity required implementing and operating them. However, given the compact size of the country and the large numbers of people involved, economies of scale could be realized in Bangladesh before many other developing countries.

#### E. PRIVATE HIGHER EDUCATION<sup>40</sup>

125. The Non-government Universities Act of 1992 allowed the establishment of private universities in Bangladesh for the first time. The Law requires that (a) a non-profit foundation or corporation be established, (b) with a Government-approved Board of Trustees, (c) applicants place a substantial security deposit (about \$250,000 initially) in an interest-bearing Government account to compensate students should the institution fail, (d) obtain its own land and premises within five years of initial operations, (e) reserve 5 percent of the student places for free tuition for able but needy students and (f) the intended curricula, teaching staff and infrastructure be reviewed favorable by the UGC. The University Grants Commission reviews all applications for establishment of private universities, in terms of the curriculum to be followed, teaching staff to be employed, physical premises and capitalization. Once approved, the Government must approve the Vice Chancellor, the Deans and the Department heads. Initially accreditation was indefinite, and no follow-up was envisaged to monitor and control the activities of the private universities.

126. The private universities provided an attractive alternative to many Bangladeshi youth. Acceptance rates at public universities were extremely low, perhaps only 10 percent of the 80,000 annual applicants could be admitted. Moreover, public universities, particularly in the mid 1990s were frequently closed because of campus demonstrations and violence. In some cases, it took twice as long to finish the degree program and several cohorts of students were packed into the institutions (referred to as "session jam").

Table A-10 : Private Universities (June 1997)

University	No. of Departments	No. of Students	No. of Teachers <sup>41</sup>	Students per Teacher
1. North-South University	6	1280	44	29
2. University of Science and Technology	12	928	120	8
3. Independent University	11	490	46	11
4. Central Women's University	10	101	28	4
5. Darul Ihsan University	5	450	64	7
6. International University of Business, Agriculture and Technology	17	523	81	6
7. Islamic University, Chittagong	3	202	26	8

Continued

40 This section is compiled from interviews at the University Grants Commission, the North-South University and Richard Hopper, "The New Universities of Bangladesh: A Case Study in Private Postsecondary Education," *International Educator* Volume VII, No.1, Fall 1997/Winter 1998.

41 Including part-time teachers

Continued Table A-10

University	No. of Departments	No. of Students	No. of Teachers	Students per Teacher
8. Ahsanullah University of Science and Technology	5	299	60	5
9. AMA International University	4	411	22	19
10. The University of Comilla	2	30	12	3
11. Asian University of Bangladesh	7	568	22	26
12. East-West University	3 (faculties)	127	16	8
13. Queens University	4	67	17	4
14. University of Asia and Pacific	6	98	22	4
15. Gano Bishwabidyalaya	6	-	25	-
16. The People's University of Bangladesh	6	97	27	4
Total	104	5668	632	9

*Source: U.G.C., Brochure, May 1998, p.36.*

127. By 1997 seventeen private universities had been sanctioned and started operations. Almost all are concentrated in Dhaka, with 2 in Chittagong and one in Comilla. Mainly philanthropists started the private institutions, or groups of philanthropists, with a few religious institutions established by funds from outside the country. The enrollments at private universities typically are small, ranging from fewer than a hundred students to about 1500. The private universities are characterized by almost universal adoption of the U.S. model of higher education, i.e., four years for an undergraduate degree and two years for a masters' degree, along with a credit system of student academic accounting and semesters as the academic term. Most private universities also attempt to establish linkages with universities abroad, in large part to ensure that credits taken will be accepted for further education abroad. Private Universities are also characterized by their high rates of tuition. They get no financial support from Government and student tuition is the primary source of revenue. Fees range from about \$500 at the Central Women's University to \$4000 at Independent University of Bangladesh. The average is between \$1000 and \$2000. Private institutions have concentrated on fields of study with high marketability and individual returns, namely: business education and accounting; computer science; engineering and medicine.

128. About one fifth of the students are female, below the 30 percent average in public institutions. Interestingly, more foreign students study in Bangladeshi private universities (231) than in public universities (144).

129. Ten to twelve applications are pending with the Government for establishment of additional new private universities. These have been reviewed by the UGC and recommended for approval, but in the past year no new private universities have been approved. There are several reasons why the Government has been cautious. First, the original Act on private universities made no provision for probationary status, follow-up monitoring and review. No permanent body was made responsible for accreditation. Approval was without limit, yet it became clear that some institutions were not fulfilling original agreements in terms of provision of inputs and infrastructure. Second, a review by the UGC found that private universities have had difficulties in recruiting full time staff. The ratio of students to full time staff was found to alarmingly high in many institutions. According to the UGC private institutions tend to hire only part time staff, and most of those are drawn from full-time staff at the public institutions. Third, higher education authorities have said that it would be difficult to approve additional private universities until the National Education Policy, which includes recommendations on structural changes for higher education, is approved by Parliament.

130. Meanwhile, in mid-1998 the Parliament amended the original Act. Two provisions, in particular, have been changed. First, the UGC has been given the authority to monitor, visit and evaluate the performance of

the private universities in terms of whether they employ sufficient qualified teachers, whether they follow the approved curricula and whether infrastructure is provided according to the law. The UGC also has the authority to recommend de-certification of institutions should they fail to perform according to agreed standards. Second, the revised Act increased substantially the size of the required "security deposit", from Taka 10 million to Taka 50 million.

131. Underlying these changes is the view by many in Government that private universities are (a) elitist, catering only to children of rich families that cannot get into public institutions, and (b) parasitic, feeding off the teaching staff of public institutions.

#### **Box. 2. 1: North-South University (NSU)**

132. Established in 1993 as one of the first private universities in the country by a group of 20 philanthropists, the North South University initially enrolled 143 students in three fields of study: business administration, economics and computer science. Since then new fields of study have been opened in environmental studies, English and masters' degrees in business administration and international economics and business. The University follows an American system, including semesters, credit hours and parallels the academic calendar in North America. The curriculum, in addition to being approved by the UGC, has been reviewed by relevant departments at the University of Illinois and University of California at Berkeley. Each student must complete 124 credits (approximately 41 courses at 3 credits each) for a bachelor's degree. This usually takes four years or eight semesters at a minimum of 15 credits per semester. NSU maintains an international advisory board, including members from Harvard, Stanford and the Wharton School. Classes are taught only in English. As a matter of policy, the latest textbooks from abroad are used. Ample computer facilities are provided to students in air-conditioned facilities. The University prefers to recruit teaching staff with degrees from the US or UK, with PhDs required above lecturer status. At present only 23 of its 56 faculty members are full-time.

133. NSU charges relatively high fees: About \$200 in non-refundable admission fee; approximately \$2100 for 30 credit hours of instruction per year; plus \$200 for computer lab fees per semester if applicable and \$200 per semester in student activity fees. Initially NSU had difficulty attracting high quality students. Now it can be more selective, and takes only one fourth to one fifth of the applicants. Student recruitment was helped greatly by publicity that the initial cohort of students completed its studies on schedule in four year and reportedly all graduates got jobs quickly and at good salaries. Current enrollment is 1800 students, on a trend to achieve full capacity of about 2500 students by the year 2000.

134. The main problems of the University, apart from current difficulties over replacement of the President, are: (1) the difficulty in recruiting quality full time staff, (2) problems of students in taking instruction in English, and (3) the onerous challenge of acquiring land and building facilities—particularly at a location convenient to students. Officials also pointed to the undue interference by Government in operation of the University, questioned whether it is really necessary for Government to approve deans and department chairpersons. Once approved by Government, it is difficult for the institution to replace them, even for poor performance. The officials also appealed for introduction of tax incentives for individuals to contribute to private higher education. No tax breaks exist for contributions at present.

#### **Issues**

135. It is important that the private university sector be allowed to develop in Bangladesh. It provides a relief valve for the unsatisfied social demand for university education. It relieves the public sector of the financial responsibility for educating thousands of students. Over time, as quality builds, it can provide healthy competition for the public sector. It can be an effective means of bringing innovation in both content and methods of teaching in higher education. Private institutions also tend to be more attuned to labor market demands.

136. At present, official views toward private university education are ambiguous. The Government has slowed to a halt the approval of new private universities. The increased requirement for security deposit and the requirement that institutions have their own land and buildings could constitute major disincentives for the continuation, let alone expansion, of private higher education.

137. Moreover, Government tends to interfere too much in the internal operations of the private universities. It must approve the top administration, deans and even department chairmen.

138. Rather than try to provide incentives for establishment of additional private universities in underserved areas, the Government adopted a policy of establishing 12 more universities of science and technology, six of which are currently being sought. Clearly, the Government does not appreciate the role that can be played by collaboration with the private sector.

139. The requirement that private universities must occupy their own land and premises within five years of operation is clearly onerous. High quality education could be easily provided in rented premises. The important thing is the quality of the infrastructure and whether it meets minimum expectations. Ownership of the premises is of secondary importance. This requirement needs to be reconsidered, lest it become a major constraint on continuance of private higher education.

#### **F. BANGLADESH INSTITUTES OF TECHNOLOGY (BITS)**

140. In 1986 four existing Engineering Colleges were converted into autonomous Institutes of Technology (BITS). The engineering colleges ceased to be affiliated with universities and the BITS were given considerable autonomy in academic matters, including the formation of departments, establishment of conditions of admission, fixing of fees and awarding of degrees. Academic posts can be created with the prior approval of government. A Governing Council that includes representatives of the profession, industry and scientific research organizations runs each BIT. A Council of Institutes that functions virtually the same as the University Grants Commission coordinates the four BITS. The Council is chaired by the Minister of Education and includes heavy representation from the Bangladesh University of Engineering and Technology. The functions of the Council are to give academic advice on degrees, admission standards, set policy on appointment of staff and conditions of service. The Council evaluates and approves development plans by individual BITS, examines the annual budget and recommends to Government the allocation of funds to BITS.

141. BITS provide B.Sc. Engineering degrees in civil engineering, electrical and electronic engineering, mechanical engineering and any other sanctioned fields. Programs of study are 7 to 8 semesters in length, totaling 210 credits based on 25-32 class contact hours per week taught in English medium. Letter grades are given and graduation is based on the final examination plus cumulative grade point average. Post-graduate courses are provided at Khulna and Rajshahi BITS.

142. The four BITS enrolled 2500 students in 1996, of whom only 4 percent were female. Students are drawn almost exclusively from Diploma Technician graduates coming from polytechnic institutes. The demand for places is substantial. The Dhaka BIT takes only 18 percent of applicants. The Rajshahi BIT takes only 9 percent of applicants. Country-wide a total of approximately 720 admission seats are available annually. About 80 percent of students have hostel accommodation on campus.

143. Reportedly course contents are reviewed annually by an internal committee with external representation (usually from BUET) and revisions are made if necessary. Curricula reportedly are similar to those in the Indian Institutes of Technology. Most graduates face six months to one year of unemployment, but then most are able to find jobs. Jobs are most difficult to find for mechanical engineers. Curricula are tending to become less specialized so as to maximize the flexibility of graduates. Some graduates engage in self-employment.

144. Staff of the BITS cites the following as their main problems and difficulties:

- Inability to create teaching posts independently; and inability to provide material or financial incentives for teaching staff as is done within universities;
- Excessive delay (years) to fill any teaching vacancy. As a result, about 20 percent of the teaching posts in the Dhaka BIT were vacant;

- About 90 percent of the recurrent costs are spent on personnel. There is an acute lack of development finance, resulting in poorly equipped laboratories and computer workshops (such that computers are available only in the final year for students in computer science), lack of textbooks and journals; lack of internet facilities;
- Difficulties in opening new teaching programs in response to economic and technological development. Potential areas include textile engineering, petroleum engineering, mining and computer science.
- Lack of funds to undertake research;
- Lack of internships for students as part of their training programs. Industries do not welcome interns.
- Lack of role in continuing education for engineers that have obtained their education and need updating.
- Staff development programs were started a decade ago, but finished four years ago without being renewed. No exchange program has existed with BUET since 1986. At present, only 25-40 percent of the teaching staff in the engineering faculties at Rajshahi BIT has PhDs.

145. To this list could be added other issues: (a) lack of extensive employer involvement and the engineering professional bodies in determining the content of teaching programs, (b) lack of concentrated attention to entrepreneurship given that engineering and technician graduates are a prime source for new small businesses; (c) rather than creating 12 new universities of science and technology, as intended under the Five Year Plan, it would seem more reasonable to upgrade some or all of the existing BITs. This would cost less and start with a better tradition.

146. The Fifth Five Year Plan states the intention to double the existing intake capacity of BITs from 720 to 1440 places, and to establish four new Institutes of Technology with an additional annual enrollment capacity of 720 seats. In addition, existing BITs will be developed as centers of excellence, in part by sending staff to BUET and abroad for additional academic training. Courses will be diversified taking into account future technological demands. An estimated Tk. 700 million will be provided for these purposes.

## G. CAMPUS VIOLENCE<sup>42</sup>

147. The *New York Times* termed Dhaka University the most violent campus in the world. "Dozens of students have so far been killed over the past years on DU premises."<sup>43</sup> The same sorts of violence have plagued other universities and larger colleges.

148. Several factors are responsible for the climate of violence on campuses.

- **Student Political Parties:** The most easily identified immediate factor is student political parties and their armed wings. "In the post independence era the rival student parties in order to show their physical strength and demonstrate their hold over the University affairs started illegally occupying seats in the residential halls by muscle power. This physical clash ultimately proliferated in the academic buildings of the University."<sup>44</sup> Thus, the student dormitories have become occupied by professional outsiders and have become in some cases repositories for guns and bombs. Controlling student halls has become a means of political mobilization and a license for rent-seeking activities. Thus, control of the halls has become a prime objective of the violence. "The armed cadres are engaged in collecting tolls not only from the tender distribution of the University, but also from hotels, shops and other business centres of the greater metropolitan area." The cadres are involved in crimes like

42 On August 8, 1998 the Center for Alternatives of Dhaka University and the British Council sponsored a roundtable on "Towards a Deteriorated Campus." This section draws on the results of the roundtable, as published in *The Daily Star*, Thursday August 13th.

43 Ahmed Kamal, "Towards a Deteriorated Campus," *The Daily Star*, August 13, 1998, p.7.

44 A.K. Monaw-war Uddin Ahmad, "Campus Violence: Whose Baby?" *The Daily Star*, op. cit., p. 6.

murder, kidnap and rape in the campus as well as in the city. "the student parties and their armed wings are directly responsible for the violence in the campus."<sup>45</sup>

- National Political Parties. The student political parties are supported and nurtured by national parties. All mainstream political parties maintain their own student wings.
- University Dependency: According to many observers, the dependent relationship of the universities to the Government tends to subject the university to undue political influence. This dependent relationship is manifest in two areas in particular: use of the national police to maintain law and order on campus and the almost exclusive financial dependence on the state. "Dependence on the government hampers autonomy of the university and leads to undesirable political influence in the administrative activities of the university, thus making the administration non transparent and non accountable to the stakeholders (students, teachers, parents.)"<sup>46</sup>
- Teacher politics. An acute polarization, or "tribalization" has occurred among teaching staff because of the activities of a minority of teachers who use their offices for influencing the activities of students. Parochial politics mainly converge around new appointments, promotions and elections of different bodies of the university. The politicization of the teaching force is most evident in the numerous elections to high level posts.

149. The roundtable generated an array of possible solutions to the problem of campus violence, as summarized below:

- Reduce interference by government and political parties in university affairs. In particular: (a) political parties must dismantle their student front organizations. However, without collaboration with the stakeholders (students, guardians, teachers) campus violence will not end simply by the promises of political parties; (b) The University Order should be revised by reducing the number of elections to the minimum; (c) In particular, the method of selection of the vice chancellor should be changed and depoliticized. A panel of distinguished members should select the vice-chancellor rather than through election subject to excess politicization; (d) A University Services Commission should be established to make staff appointments and promotions on a merit and non-political basis; (e) The Syndicate should become more representative of civil society and include, in particular, representatives of guardians; and (f) Establish a chancellor's secretariat for effective supervision of university affairs.
- Reform student unions by (a) making them based on departmental representation (from which only the best students could compete) rather than based on the residential halls and (b) redirect the activities of the student union away from party politics towards issues of student welfare, sports and cultural activities.
- Establish and enforce rules against disruptive political behavior on campus by: (a) establishing a "code of honor" for teachers that spells out their duties and responsibilities; (b) establishing a "student's charter of rights" that serves the same function; and (c) enforce "proctorial rules" that currently do not recognize the right for student political parties to exist and prohibit any student group from unilaterally declaring a strike.
- Divert student attention to more important endeavors by: (a) increasing the class workloads, replacing the course system with a semester system and letter grades;<sup>47</sup> (b) increase teacher workloads and institute a system of monitoring of performance for accountability; and (c) create on campus part time jobs for students (student research and internships).

---

45 *Ibid.*

46 Dr. Imtiaz Ahmed, "Prescriptions for a Violence-free Campus," *The Daily Star*, *op cit.*, p.7.

47 According to Prof. Muzaffer Ahmed letter grading as a means of evaluating class performance would "...help in curing the students from the current attitude that 'second class is easy to attain' and that one could get away with not going to class or studying and spending time on extra-curricular activities (i.e., politics) only." *Op cit.*, p 7

## H. HIGHER EDUCATION PLANS AND POLICIES

150. During the Fourth Plan Bangladesh invested about Tk 2.3 billion in university education through Annual Development Plans (ADPs), or 71 percent of the Fourth Plan allocation for higher education. The main emphasis was on construction rather than academic improvement. Two new universities were established and made operational, including Khulna University with 890 students and Shahjalal University (Sylhet) with 1800 students. In addition, the National University was established during the Fourth Plan to help reduce pressure on the general universities. Another objective was to enroll more students in science faculties. Apart from the two new universities, this objective was not achieved.<sup>48</sup>

### *Fifth Five Year Plan*

151. The Fifth Five Year Plan (1998-2002) articulates several objectives related to higher education, viz.:

- Quantitative expansion of capacity with emphasis on science and technology.
- Focus on quality, selectivity and excellence, i.e., to develop the general and professional universities and the institutes of technologies as centers of excellence.
- Review of the examination system and a gradual introduction of the semester system.
- Updating and modernization of syllabi and curricula.
- Development of modern libraries and laboratories.
- Arresting the deterioration of the law and order condition in the campus.<sup>49</sup>

152. **Strategies**<sup>50</sup> for higher education in the Fifth Plan include:

- Consolidation and strengthening of existing development programs of the university
- Attuning higher education towards science and technology.
- Development of higher seats of learning into important centers of fundamental and applied research so as to develop and acquire technology and advanced skills.
- Linking research and development in the universities with productive sectors.
- Develop the human resources necessary for quality higher education by means of increased training of teaching staff and researchers abroad.
- Massive training of university teachers in centers of excellence outside the country.
- Establishment of "accountability of performance" in universities and institutes of technologies; linking government's financial support with evaluation of performance of the institutions and teachers.
- Developing colleges in the greater district centers for post-graduate education, especially in science and technology.
- Strengthening supervision and administrative inspection of the colleges through the National University.

153. **Programs**<sup>51</sup> for higher education during the Fifth Plan include:

#### *Consolidation*

- Repair and renovate for existing buildings and laboratories as means of ensuring consolidation and as a matter of priority over creation of new physical facilities.

48 Chapter XX, Section 20.3 d of *The Fifth Five Year Plan: 1997-2002*, Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.

49 *Op. Cit.*, Section 20.6, and Section 20.12.8.

50 *Op. Cit.*, Section 20.7; and Section 20.12.9.

51 *Op. Cit.*, Section 20.12.10.

### **Expansion**

- Set up six new universities of science and technology, starting in 1997/8, each with five schools of studies. The six universities are expected to absorb Tk. 1.1 billion in development funds. The new universities will be located to achieve regional balance in the system, i.e., in areas underserved by universities at present.<sup>52</sup>

### **Quality Enhancement**

- Undertake massive scholarship program for improving the qualifications of teachers, including training 300 teachers every year in universities outside the country.

### **Performance Evaluation and Incentives**

- Develop performance criteria for institutions as a basis of expansion and development of facilities at public cost.
- Establish a system of performance evaluation of teachers and promotion of teachers based on performance, including reasonable number of publications in recognized professional journals.

### **Resource Mobilization**

- Resource mobilization through encouraging establishment of private universities, particularly in science and technology; encourage private endowment/chairs in public institutions; and raising fees of university students in tandem with the provision of adequate financial support for the needy.

### **College Education**

- Strengthen the National University to supervise the 933 degree colleges in the country.
- Strengthening degree colleges by providing necessary library and laboratory facilities and by appropriate training of the college teachers.
- Develop some colleges as centers of excellence through introduction of research and training at graduate and post-graduate levels; In particular, 10 government colleges will be identified for improvement of standards as centers of excellence at par with the cadet colleges.<sup>53</sup>
- To encourage female students to attend colleges in large numbers, separate colleges for women will be set up in the remaining 20 districts where no government women's college exists by nationalizing 20 non-government colleges in those districts.<sup>54</sup>

### **BOU**

- Expansion of country-wide distance education programs through completion of the BOU media center and use of a second national channel of Bangladesh Television for distance teaching purposes

### **UGC**

- Review of the functions of UGC with a view to strengthening its role in efficient allocation of resources and adherence to quality standards
- Develop a UGC-based University Resources Center and Computer Network System.

### **Institutes of Technology**

154. The Fifth Five Year Plan states the intention to double the existing intake capacity of BITs from 720 to 1440 places, and to establish four new Institutes of Technology with an additional annual enrollment capacity of 720 seats. In addition, existing BITs will be developed as centers of excellence, in part by sending staff to BUET and abroad for additional academic training. Courses will be diversified taking into account future technological demands. An estimated Tk. 700 million will be provided for these purposes.

---

52 *Op. Cit.*, Section 20.12.5

53 *Op. Cit.*, Section 20.10.8

54 *Op. Cit.*, Section 20.10.9

155. The total allocation for higher education is expected to be Tk. 5.7 billion, or 4.5 percent of the total allocation for the education sector including "spill-over" projects, or Tk. 3.7 billion—3.7 percent of the total for education— without spill over projects. The establishment of six new universities is regarded as a spill over project. To supplement public financing, the Plan calls for the government to "give supportive services for setting up of private universities..." Moreover, "private investment in education will be income tax-exempt."<sup>55</sup>

### *The Proposed National Education Policy*

156. The proposed National Education Policy (NEP) was developed by a team of experts from 1997-98. The Commission was heavily dominated by people from the higher education community. It made its recommendations without reference to resource constraints. The recommendations of the NEP is still being reviewed by the government and will be submitted to the Parliament for final approval as policy.

157. The draft NEP states that "the aim of higher education is to instill knowledge in the mind of the learner, search new knowledge and build up skilled human resources."<sup>56</sup> Since the present system is not suitable for the country in the 21st century it calls for a complete reform of higher education.

158. In terms of student input into higher education, the Policy calls for raising the quality of madrasah education to the equivalent of general education, making merit the only basis for entry to higher studies and warns against compromising quality through use of quota systems. The draft NEP calls on the government to provide the necessary resources to improve the standards of higher studies to match those in developing and developed countries. To this end the plan states that standards of teaching should be developed using modern technology and teaching materials, and that teachers must be involved in research on a regular basis. Teacher promotion should depend on the output of useful research as well as improved practical teaching.<sup>57</sup>

159. A key recommendation calls for restructuring the length of degree programs. In contrast with pass degrees of two years at present and honors degrees of three years duration, the draft NEP calls for a system of four year degree courses followed, where appropriate, by a one year masters degree. General colleges would offer three-year degree courses, followed, where appropriate, by two years for a masters degree at other institutions. In district headquarters University Colleges with a high standard will be established providing four-year degree courses, and post graduate studies. For both degree and master's courses the same standard curriculum would be followed in both colleges and universities. The National University would determine the course and curriculum.

160. Post-graduate courses leading to MPhil would take two years and the PhD three to five years of study. These post-graduate programs would be concentrated in centers of excellence established in all universities.

161. Teachers and students should take part in research and work together. Universities would concentrate on original and basic research according to the practical needs of the country; at the same time the necessary facilities for research should be provided in degree colleges. Curricula and syllabi should be modern and of international standard. It should be compulsory to introduce the mother tongue, Bangla, in all levels of education. To this end important documents on modern science should be translated into Bangla. However, because translation is lagging, teaching and learning should continue for the time being in English.

162. Resource mobilization is recognized as highly important to supplement government financing and achieve necessary investments to maintain an international standard. Important sources are tuition fees, bank loans or personal donations. Meritorious students should have access to soft loans from banks.

---

55 *Op. Cit.*, Section 20.17.2

56 National Education Policy, Chapter 4, Summary, higher education section, p.9.

57 These and following sections are taken from Chapter 9, Higher Education, of the NEP.

Admission and tuition fees, which are very low at present, could be raised through graduated tuition: tuition should be fixed "on the basis of attestation of the parents' financial ability."<sup>58</sup>

163. The importance of the Open University is underscored. More time is recommended on the second television channel, radio, establishment of internet system and development of multimedia systems. As for private universities, the Commission underscored the importance of equivalent standards, curricula and educational qualifications of staff in private universities with public universities. It stressed that these private universities must not be commercial, and an Accreditation Council should be established to review periodically the activities and performance of private universities. Finally, the draft NEP calls for the UGC to play a wider role in the overall planning and raising of standards in higher education as a whole.

164. In terms of engineering education, the draft NEP calls for an increase in the number of places in educational institutions for engineering. More attention should be paid to research and post-graduate courses at BUET to create high quality engineers; post-graduate courses at BITs should be improved. Research should concentrate on solutions to local engineering problems. Greater attention should also be paid to updating the education of practicing engineers. The BITs should be given more autonomy to open new education programs. Specifically, new courses should be started on relevant subjects, including chemicals, textiles, leather, ceramic and gas industries. The quality of education should be improved through internships of students in industries and technological institutes. Better linkages should be achieved between the educational institutes and industrial enterprises. Greater stress should be placed on collateral subjects, such as economics, management and development. Standards of teaching should be increased at the BITs and monotechnics, including the Technical Teacher Training College, in part by sending teachers to BUET or abroad for training.

## I. EXTERNAL ANALYSES OF HIGHER EDUCATION

### *Analysis financed by the UNDP<sup>59</sup>*

165. **Background.** Third level enrollment per 100,000 inhabitants increased from 272 in 1980 to 382 in 1990. The gross enrollment ratio for the third level increased from 3.2 percent in 1980 to 3.4 percent in 1990, including 5.4 percent of males and 1.1 percent of females. Expenditures on university education were 7.4 percent of government recurrent financing of the education. Numbers in parentheses in the following tables refer to pages.

### Policy, Planning and Administration

Problems	Recommendations
<ul style="list-style-type: none"> <li>• Policy: lack of a "conscious higher education policy and plan of action for its implementation." (164)</li> <li>• Absence of uniformity among the HEIs at operational level, in admissions, examinations, teacher-student ratios. (165)</li> <li>• Administration: The Directorate of Secondary and Higher Education (DSHE) with a small professional staff, cannot cope with the management and supervision of 17,500 institutions. (168)</li> <li>• College principals have often lost touch with classroom teaching, and as a result, fail to exercise any influence on academic matters and discipline. (169)</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen the UGC in coordination and planning with a view to increased accountability of HEIs. (175)</li> <li>• Divide DSHE into two directorates. (168)</li> <li>• Ensure that college principals take a reasonable number of classes each week and devote time to academic planning. (169)</li> </ul>

*Continued to page 105*

<sup>58</sup> Chapter 9, section 9.

<sup>59</sup> *Post-primary Education Sector Strategy Review, Final Report, 1994, Chapter VIII, pages 163-178.*

Continued from page 104

**External Efficiency and Relevance of Teaching Problems**

Problems	Recommendations
<ul style="list-style-type: none"> <li>Enrollment composition: inadequate number of places in the institutions of science and technology, engineering, agriculture and medicine. (164)</li> <li>Course content outdated. (169)</li> <li>Labor market: large-scale unemployment exists among the graduates, particularly among liberal arts. (165)</li> </ul>	<ul style="list-style-type: none"> <li>Increase the proportion of university enrollment in science subjects including agriculture, engineering and architecture from 39 percent in 1990 to 50 percent in the Fifth Plan (170-71)</li> <li>Give priority to the development of science facilities. (176)</li> <li>Establish a National Curriculum and Evaluation Committee for Higher Education to restructure and update courses of studies at the degree and postgraduate levels. (169)</li> <li>Establish placement bureaus for graduates and make available to students and graduates systematic information on employment opportunities.</li> </ul>

**Quality**

Problems	Recommendations
<ul style="list-style-type: none"> <li>Structure: inadequate durations of the bachelor's and master's degree courses of general education. (164)</li> <li>Low quality of education in general (165); low efficiency reflected in large failures at the first degree (pass) level.</li> </ul>	<ul style="list-style-type: none"> <li>The duration of the first and second degrees should be three years and two years, respectively. (170)</li> <li>To improve teaching and learning in the degree colleges a system of performance grants to deserving institutions can be instituted. (166) Grants-in-aid to non-government colleges should be made performance-related. Colleges which build up reputations may be given incentive grants for special development. (176)</li> <li>Develop and upgrade a degree college in each of the old district headquarters, eventually to be made autonomous with the power to award degrees. This will also reduce pressure on the universities to expand enrollments (167, 176)</li> </ul>
<ul style="list-style-type: none"> <li>Academic supervision aimed at raising the standard of teaching and learning receives little attention. (168)</li> <li>In Bangladesh little attention has been given to research and the facilities for research are grossly inadequate. (171)</li> </ul>	<ul style="list-style-type: none"> <li>Develop and undertake a program of academic supervision, including college visits each year by an academic team. (168, 176)</li> <li>Earmark at least 5 percent of recurrent expenditure for research, with allocations being done competitively via research proposals to a newly-created Central Research Council under the UGC. (171)</li> </ul>
<ul style="list-style-type: none"> <li>Lack of teacher and institutional accountability.</li> </ul>	<ul style="list-style-type: none"> <li>Institute a system of teacher evaluation and periodic self-evaluation of HEI performance. (172)</li> </ul>

Continued

**Quality**

Problems	Recommendations
<ul style="list-style-type: none"> <li>Lack of suitable textbooks in Bangla and English.</li> </ul>	<ul style="list-style-type: none"> <li>Set up a mechanism for publishing suitable textbooks for higher education in collaboration with one or more foreign publishing companies with a view to develop one basic textbook for each course at the undergraduate level (173)</li> </ul>

**Internal Efficiency**

Problems	Recommendations
<ul style="list-style-type: none"> <li>High costs: unit recurrent costs (thousands): Tk 1.1 at college level; Tk 19.6 at university level, including Tk 14.6 at Dhaka University; Tk. 24.6 at BUET, Tk 53.6 at BAU. (199-200)</li> <li>Proliferation of liberal arts colleges, including an increase in 66 colleges between 1990-91; the facilities of existing institutions are not always fully utilized; there are many intermediate and degree colleges with enrollments of 200 students or less. (165-6)</li> <li>Actual weekly teaching load is reported to be less than the minimum usually required (10 hrs. for professors, 12 for associate professors and 16 for senior lecturers at Dhaka University). (170)</li> <li>Widespread student unrest results from the politicization of education and, at times, from understaffing of the institutions. (165)</li> <li>Session jams result in the students taking a longer than normal period to complete the courses (164)</li> </ul>	<ul style="list-style-type: none"> <li>Contain public expenditure on higher education by: a) diverting a proportion of enrollment increases to non-degree programs of direct relevance to earning a living; b) not to set up new universities in the public sector; c) not to nationalize non-government degree colleges; d) college mapping to precede establishment of any new colleges; e) science facilities to be required of all colleges. (167-176).</li> <li>Use facilities more intensively by increasing daily work hours and introducing a semester, trimester or quarter system thereby expanding capacity to enroll more students without additional construction.</li> <li>Adopt minimum enrollment floors and increase enrollments in small HEIs. (177)</li> <li>Prescribe and rigidly enforce weekly teaching loads of teachers of HEIs. (170)</li> <li>Arrive at consensus that political parties will not have student fronts; students' union should develop appropriate codes of conduct (173)</li> <li>Adopt and implement a program of youth service for students. (177)</li> <li>Ensure admissions are completed in two months of publication of HSC results. (177)</li> </ul>

*Continued to page 107*

Continued from page 106

**Financing**

Problems	Recommendations
<ul style="list-style-type: none"> <li>• Lack of cost recovery: tuition fees of the public sector universities are much lower than those of government and non-government degree colleges (166) Compared to per-student recurrent costs, the tuition fees are insignificant (less than 1 percent).</li>   <li>• Bangladesh has been spending a considerable amount each year on internal scholarships and stipends under its ADF. (167)</li> </ul>	<ul style="list-style-type: none"> <li>• Tuition fees should be substantially raised in gradual steps to recover a significant portion of the operating costs of higher education. (200) The public universities can aim at recovering 10-20 percent of their recurrent costs during the Fifth and Sixth Plans, respectively (166)</li> <li>• Require at least 5 percent private contribution for any development project of a non-government college. (176)</li>   <li>• Establish student loan schemes for students.</li> </ul>



## REFERENCES

- Ahmed, A.K. Monaw-war Uddin. 1998. "Campus Violence: Whose Baby," *The Daily Star*, August 13, 1998, p. 7.
- Ahmed, Imitiaz. 1998. "Prescriptions for a Violence-Free Campus," *The Daily Star*, August 13, 1998, p. 7.
- Asian Development Bank. 1998. Higher Secondary Education Project, Eight Research Studies. Study 1, "Tracer study of higher secondary students following completion of HSC," March 1998.
- "Asia's Best Universities," *Asia Week*, May 15, 1998.
- Government of the People's Republic of Bangladesh. *Fifth Five Year Plan, 1997-2002*.
- Hopper, Richard. 1998. "The New Universities of Bangladesh: A Case Study in Private Post-Secondary Education," *International Educator*, Volume VII, No. 1, Fall 1997/Winter 1998.
- Kamal, Ahmed. 1998. "Towards a Deterrorized Campus," *The Daily Star*, August 13, 1998, p. 7.
- Tan, Jee Peng and Alain Mingat. 1998. *Education in Asia: Comparative Study of Costs and Financing*. World Bank, Washington.
- UNDP, 1994. *Post-Primary Education Sector Strategy Review: Final Report*, Dhaka.
- University Grants Commission. 1996. *Annual Report*, Dhaka..
- \_\_\_\_\_. 1997. *Annual Report*, Dhaka.
- \_\_\_\_\_. May,1998. "Brochure," Publication No. 60, Dhaka.







**Other World Bank Publications from UPL**

BANGLADESH  
**A PROPOSED RURAL DEVELOPMENT STRATEGY**  
A World Bank Study

**AN ANNOTATED BIBLIOGRAPHY OF WORLD BANK  
REPORTS AND PUBLICATIONS ON BANGLADESH 1972-1998**

BANGLADESH  
**ASSESSING BASIC LEARNING SKILLS**

BANGLADESH  
**LABOR MARKET POLICIES FOR HIGHER EMPLOYMENT**

BANGLADESH  
**RURAL INFRASTRUCTURE STRATEGY STUDY**

BANGLADESH  
**PURSUING COMMON GOALS**  
Strengthening Relations Between Government and  
Development NGOs

**BANGLADESH 2020**  
A Long-run Perspective Study

BANGLADESH  
**GOVERNMENT THAT WORKS**  
Reforming the Public Sector

**QUEST FOR A HEALTHY BANGLADESH**  
A Vision for the Twenty-First Century

BANGLADESH  
**EDUCATION SECTOR REVIEW**  
in three volumes

---

The World Bank  
1818 H. Street, N.W.  
Washington, D.C. 20433, USA  
Telephone: 1 202 477 1234  
Facsimile: 1 202 477 6391

3A Paribag  
Dhaka 1000  
Bangladesh  
Telephone: 880 2 9669301-08  
Facsimile: 880 2 8613220



The World Bank  
Bangladesh Dhaka Office

This comprehensive Education Sector Review has been published in three separate volumes. Volume III focuses on Technical-Vocational Education and Training, and Higher Education in Bangladesh.

These background reports on the Education Sector Review present a detailed analysis of the various parts of the system. The crucial issues plaguing the technical-vocational and higher education sector are examined and necessary steps for the future outlined. Each sub-sector paper concludes with a possible strategy of objectives and means.

Volume I contains the main report and additional papers on Socioeconomic Development and its Implications for Education and Education Finance. The other background papers, organized in Volume II, contains chapters on Primary and Pre-Primary Education, Non-Formal Education, and Secondary and Higher Secondary Education.

Tk. 260.00

[www.uplbooks.com](http://www.uplbooks.com)

