Qualifications Frameworks: Implementation and Impact

Background case study on Bangladesh

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Contents

1. Introduction

This study coincides with reforms to renew and strengthen Technical and Vocational Education and Training (TVET) in line with national goals to reduce poverty. A partial National Technical and Vocational Qualifications Framework (NTVQF) is being developed that will cover all TVET qualifications at certificate and diploma level. General education and higher levels of professional and academic education are not included in the framework. The NTVQF addresses paraprofessional levels of education and training i.e. supervisory and middle-management job functions. The emphasis of the framework is towards addressing the immediate needs of employers in the productive sectors. Although not a comprehensive framework, the NTVQF can be viewed as a step in that direction (Moore, 2009)

The TVET Reform Project is based on studies and reviews undertaken between 2000 and 2007.[1] The European Commission (EC) provides financial support to the project, and the International Labour Organisation (ILO) in Bangladesh is responsible for implementation in collaboration with the Government of Bangladesh (Ministry of Education). The aims of the TVET Reform Project are twofold: first, to create more employment opportunities particularly for the poor, in line with the National Strategy for Accelerated Poverty Reduction (NSAPR) (Government of Bangladesh, 2008)[2]; secondly, to strengthen the economic competitiveness of the national economy (ILO, 2007, p.7). The approach taken is to develop a competence-based approach to education, skills and training.

The national strategy stresses the expansion of TVET opportunities at post-primary level, focusing on improving the employability and income-level of adolescents, youth and adults (both males and females), child labourers, those with low levels of literacy and those in rural areas (ILO, 2007). At the present time, under-privileged youth and adults constitute the major part of the workforce in export-oriented industries such as garments, light engineering, electronics, construction, services and transport where they frequently under-perform or remain underemployed because they lack the required skills.

The premise is that an improved TVET system would enable these people to improve their life situation and participate more effectively in the economic and social development of the country. The international transparency of the competence-based approach would also benefit Bangladeshi migrant workers who could secure better jobs overseas and be better positioned to send home higher remittances. According to the World Bank, in 2006, 8.8 per cent of the Gross Domestic Product (GDP) came from remittances (World Bank, 2008). The move to a competence-based system is seen as holding the key to overcoming lack of

[1] See Appendix 1 for a list of these documents.

[2] The NSAPR has donor support through a number of technical cooperation projects.

education and skills, lack of access to learning, lack of recognition of existing skills and/or lack of money to pay for skills acquisition. The NTQVF forms part of a comprehensive move to strengthen the TVET system in line with changes in employment patterns and the need to upgrade the qualifications of the population (Khan, 1993; Rafique, 1994; BTEB, 1996).

2. NTVQF: Overview

The NTVQF initiative is linked to human resource development and skill training which in turn are linked to occupational standards that are identified in a systematic and transparent manner in order to be acceptable to employment markets at home and abroad.

The formation of the National Council for Skills Development and Training (NCSDT) in 1979 and the introduction of National Skill Standards (NSS) in 1985 (under the aegis of NCSDT) marked the first significant move towards a TVET system and qualifications that were oriented to market needs.

The turn of the century saw a sharp rise in the demand for skilled labour in a globalizing market and concomitant needs for human resource development at the national level. For example, one of the development objectives set in the Fifth Five Year Plan (1997-2002) (Government of Bangladesh, 1997) was "to enhance the functional character of technical education and vocational training by making them more job-oriented through constant and appropriate links with the employment market".

Like most countries around the world, reforming education and particularly technical and vocational education is part of poverty reduction as well as economic development. The first Poverty Reduction Strategies Programme (PRSP) (2004-08) *Unlocking the Potential: National Strategy for Accelerated Poverty Reduction* pointed to: "the failure of the education system, particularly the technical education and vocational training (TVET) system, to cope with the demand for skills, both in terms of quality and quantity will be addressed by focusing on market driven skill formation" (Government of Bangladesh, 2007).

The second PRSP (2009-11), titled *Moving Ahead: National Accelerated Strategy for Poverty Reduction II* posits that: "The programmes in the second NSAPR will supplement the efforts made in the first NSAPR to expand and diversify training facilities, especially for women and upgrade and reorient the quality and content of vocational training in general to cater to the emerging needs of the economy" (Government of Bangladesh, 2008).

Meanwhile a number of studies and reviews have been undertaken (see Appendix 1). The most recent one by the World Bank identified problems in the overall TVET system and also specific issues (World Bank, 2007). These include:

- The TVET system is disconnected from the job market.
- The system is not supported by a policy and a consistent regulatory framework.
- The system is highly centralized. Training centres are not allowed to take planning and programming decisions; they have little autonomy, suffer from

system rigidity and are not flexible enough to revise courses according to changing local needs.

- The system is organized in a traditional school-based way with a rigid and outdated approach to curricula and vocational standards, and long course duration.
- There is no quality assurance mechanism.
- Teachers' qualifications are not in line with system needs, and there is no teacher training after the acquisition of an initial qualification.
- The system does not serve the underprivileged (rural poor, child labourers, women, informal workers, and so on) due to its rigidity and barriers to entry.
- Informal apprenticeships are not regulated and no formal certification is awarded to apprentices.
- There is no system for recognition of existing skills and informal learning to allow labour movement. This leads to a serious wastage of skills within the whole economy.

It was in this context that a five-year project (2007-2012) was developed and funded by the European Commission (implemented by the International Labour Office [ILO]). The project document refers to the World Bank study recommendation for "an urgent and large-scale intervention in the way it [TVET] is organized, operates and responds to the demands of large industry, informal economy, communities, and private individuals."

The EC/ILO TVET Reform Project (ILO, 2007) has five components:

(i) Review and strengthening of TVET policies, systems and legislation at central and decentralized levels.
(ii) Enhancing the flexibility, quality and relevance of TVET.
(iii) Strengthening TVET institutions through improving the knowledge and skills of managers and teachers.
(iv) Improving skills development which is seen as necessary for enhanced productivity and competitiveness in key growth and export-oriented industries in the formal industrial sector.
(v) Increasing access of underprivileged groups to TVET.

Reform measures are intended to bring about overall changes at policy, industry and institutional levels. The project puts in place what have been described as 'modern fundamentals' (ILO, 2007, p. 6):

> … improving labour market and training information and making it accessible to employers, students and parents; introducing or assisting in the provision of vocational guidance; modernizing national qualifications, courses and curricula; and developing certified education and training professionals capable of maintaining the TVET system after the termination of this project. The project will also address quality, diversity and relevance of polytechnic education which delivers long-term and high-cost programmes that require considerable investments. The advantages of investing in polytechnic

education, as compared to trade training, are that its graduates acquire capabilities at the technician level enabling them to contribute to the development of ICT, operate sophisticated technologies, and develop competitive products in industry and services.

The expectation is that in key sectors, selected in terms of their potential to increase jobs, skill gaps will be identified, employers will be encouraged to participate in terms of making their needs understood, and providers will be encouraged to improve delivery.

The NTVQF has been accepted by the Government of Bangladesh (in agreement with donor agencies) as an important part of the TVET reform process. The scope of the NTQVF will embrace all sections of the existing workforce and those entering the workforce. This includes recognizing the skills workers have accumulated on-the-job and through informal education.

In common with other qualifications reform around the globe, the NTVQF in Bangladesh is expected to:

i) Make TVET a more attractive system with expanded opportunities in the world of work.
ii) Increased access to TVET.
iii) Facilitate smooth progression in terms of qualifications and greater upward economic and social mobility.
iv) Permit transfer between general education and technical-vocational training.
v) Enhance transparency in qualifications and skills levels.
vi) Encourage industry involvement in education and training to develop more competent and responsible workers and technicians in fulfilment of industry needs.

3. Country context

The practical significance of TVET reform cannot be overemphasized and is best evidenced by the country context: its people, the geography and the economic and social conditions which determine standards of living. Situated in the north-eastern part of South Asia, the country is bounded by India on the west, the north, and the north-east, by Myanmar on the south east and by the Bay of Bengal in the south. A network of rivers including the Padma, the Jamuna, the Brahmaputra, the Meghna and their 230 tributaries with a total length of about 24,140 kilometres criss-cross the country. The country occupies a very small land space but is heavily populated and vulnerable to frequent natural disasters related to its geophysical position. A surface area of 147,570 square kilometres and a population of 148.5 million[3] combine to produce a density of 1,020 persons per square kilometre, one of the highest in the world (Mabud, 2008). Three quarters of the population are rural and only one quarter urban. The sex ratio is 105 males per 100 females. More than half of the population are rated as functionally illiterate.

The territory now constituting Bangladesh was formerly part of the Indian sub-continent

[3] Seventh largest country in the world by population size.

ruled by the British till 1947 when India was divided to form two independent countries, India and Pakistan. First known as East Pakistan, Bangladesh became a sovereign state on 16 December 1971 following a war of liberation against the military rule of what was then West Pakistan. It has a parliamentary form of government; the country is divided into six administrative divisions; the divisions are divided into 64 districts; districts are constituted by 481 upazilas which in turn are made up of 4,498 unions.

Although fertile soils provided abundant raw materials for industry, the territory remained underdeveloped during both British and Pakistani rule. As a result, the country is predominantly rural in character. However, there is a thriving service sector and a small but growing manufacturing economy. Heavy industries include ready-made garments, cotton textiles, pharmaceuticals, fertiliser, wood products, iron and steel, ceramics, cement, plastic products and chemicals. The principal exports are ready-made garments and knitwear, frozen fish, jute and jute goods, pharmaceutical products, tea, leather products, handicrafts and chemicals.

According to the International Monetary Fund (IMF), Bangladesh was the 48th largest economy in the world in 2007. The service sector contributes almost half (49 per cent) of the GDP with labour participation at 37 per cent. Industry contributes 29 per cent with labour participation at only 15 per cent. Agriculture still has the largest share of labour participation (48 per cent) but contributed only 22 per cent to GDP in 2006 (Bangladesh Bank, 2008): this despite government and non-governmental organisation (NGO) investment in rural development and social transformation activities. Although agriculture is diversifying with more non-farm activities (such as poultry, livestock, pisciculture, forestry, agribusiness and transport services), the GDP figures suggest that traditional practices result in low labour productivity, suggesting the need to introduce technology and upskill workers accordingly. Although Bangladesh has strived to progress on the Human Development Index, it continues to be cursed by persistent and widespread poverty (UNDP, 2008).

3.1. Labour force and employment

Bangladesh ranks 7th among 220 countries of the world in terms of the size of its labour force; estimated as 49.5 million (37.4 million male and 12.1 million female) in 2005-06 (BBS, 2008). Employment in the informal sector increased by 19.8 per cent during the period 1999-2000 to 2002-03 and by a further 6 percent between 2002-03 and 2005-06. Employment in the formal sector saw a corresponding decrease. Unemployment amongst male members of the labour force has fallen by 20 per cent, whilst unemployment amongst women (particularly rural women) rose by 80 per cent between 2002-03 and 2005-06 .

Compulsory primary education has been introduced and government and non-governmental initiatives support and promote primary and secondary education. The proportion of the labour force with education has increased over the years. Strikingly, unemployment was found to have increased in spite of higher education levels indicating a serious mismatch between the current education system and the employment market. This underlines the importance TVET in increasing employability and labour productivity (Bangladesh Bank, 2008).

With a current labour force growth rate of 3.32 per cent annually, the labour force will grow to 58.28 million in 2010-11. In the light of this, it has been estimated that 7.32 million additional jobs will have to be created between 2009 and 2011. A key challenge will be to expand decent employment opportunities to absorb this growing labour force. To meet this challenge, the second *Poverty Reduction Strategies Programme* (PRSP) Government of Bangladesh, 2008) emphasizes skill training to be delivered through improved and expanded public and private sector institutes.

Poverty was endemic until the late 1980s, when the situation started to improve. The poverty rate was estimated as 38.0 per cent in 2008 (Government of Bangladesh, 2008) which means that Bangladesh ranks 37th among 146 countries in the world by the measure of population below poverty line.[4] Despite significant improvements, measured in terms of US$1 per day income, Bangladesh still has one of the highest incidences of poverty. In this context, the PRSP has committed to higher economic growth, increased productive employment, improvement in human capital and social protection. This only underlines the importance of skills development of the workforce for their increased contribution to poverty reduction in the country.

Migration and remittances

According to the Bureau of Manpower Employment and Training (BMET),[5] about 5.4 million people went abroad for employment between 1976 and 2007. They are the principal source of earning foreign currency accounting for almost US$48 billion's worth of remittance inflow into the country. Bangladesh is one of the highest remittance-receiving countries in the world ranking 5th among developing countries and 11th among all countries. However, in terms of exporting professionals or skilled workers, Bangladesh is lagging far behind (Barua et al., 2007)

Of the total migrant workers (0.8 million) in 2007, the majority were unskilled. Whilst the proportion of unskilled labour export has increased from 43.09 per cent in 1988 to 57.41 per cent in 2007, the proportion of skilled labour declined from 37.12 per cent to 20.13 per cent during the same period. This indicates that Bangladesh has failed to produce skilled labour for temporary employment abroad. The country could easily double or even triple its remittances through producing and exporting skilled manpower. Comyn (2009) argues that current remittances of US$7 billion a year would increase to over US$ 10 billion if workers were skilled. However, manpower export and the number of workers living abroad have declined since the global recession, another reason for a strengthened national skills development programme with internationally compatible qualifications.

3.2. Role of development partners

Bangladesh has depended on donor support to carry out development activities. The Local Consultative Group (LCG) is implementing a large number of projects in all areas of development including education and human development. The LCG consists of the 32 Bangladesh-based bilateral and multilateral donors of the Bangladesh Development Forum

[4] http://www.indexmundi.com/g/r.aspx?t=0&v=69&l=en (29.09.09)

[5] http://www.bmet.org.bd/Reports/Overseas_Statistics.htm

(BDF) and the Government of Bangladesh, represented by the Secretary of the Economic Relations Division (ERD).[6] In May 2000, the LCG structure was reviewed by a high-level donor panel and an LCG Executive Committee created to jointly steer the work of the group. The LCG has 21 sub-groups.[7] However, a critique of donor-supported projects is that many of them have strings attached, and that these are usually time-bound. This results in many good outcomes being lost with the termination of the project.

NGOs in development

This aspect of NGO work in Bangladesh is one of the worlds largest and contributes 6-8 per cent to the GDP.[8] The following figures show the volume of this type of work:

- 206,000 not-for-profit organisations, 189,000 of which are religious (BBS, 1999 [9]).
- 45,536 organisations registered with the Social Welfare Ministry (Government of Bangladesh, 2004, p. 5).
- 2,383 organisations registered with the NGO Affairs Bureau.[10]

NGOs in education and skills training

About 1.5 million children (approximately 8 per cent of total primary enrolment) are in schools run by NGOs, mostly in the non-formal primary schools for which the NGO sector is best known; "non-formal" in this context means that the schools deliver the national curriculum but through modes of delivery that are flexibly adjusted to the realities of everyday life. Some NGOs combine skills training with non-formal education helping disadvantaged young people to access employment opportunities.

The NGO education sector is however highly skewed, with one large organisation (the Bangladesh Rural Advancement Committee, BRAC) receiving about 75 per cent of donor resources and accounting for a similar share of primary enrolments in NGO schools. BRAC also franchises its model by subcontracting 200 small NGOs to deliver non-formal education programmes. Overall, NGO schools have a positive impact on school enrolment, particularly

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[6] *Bilateral* development partners: Australia AusAID, Canada CIDA, China, Denmark, European Commission, France, Germany GTZ, Italy, Japan JICA, JBIC, Korea KOICA, Netherlands, Norway, Russia, Sweden SIDA, Switzerland SDC, United Kingdom DFID, United States of America USAID. *Multilateral* agencies: Asian Development Bank (ADB), Food and Agriculture Organisation (FAO), International Monetary Fund (IMF), United Nations, United Nations Development Programme, (UNDP), United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), World Bank, World Food Programme (WFP), World Health Organisation (WHO). See http://www.lcgbangladesh.org/inventory/13_inventory.pdf

[7] Agriculture and Rural Development, Chittagong Hill Tracts, DER (Disasters), Education, Energy, Environment, Finance, Governance, Health and Population, HIV/AIDS, Macro-economics, NGOs, Poverty Issues, Private Sector Development, Project Implementation, Rural Infrastructure, Transport, Urban Sector, Water Management, Water Supply and Sanitation, WAGE (Gender).

[8] http://www.ngoab.gov.bd

[9] In Irish, L.E. and Simon, K.W. 2005. *NGOs in Bangladesh: Legal and Regulatory Environment*, (Dhaka, Local Consultative Group) p. 6.

[10] http://www.ngoab.gov.bd

of girls, and record higher attendance and completion rates than formal schools.

4. Education system

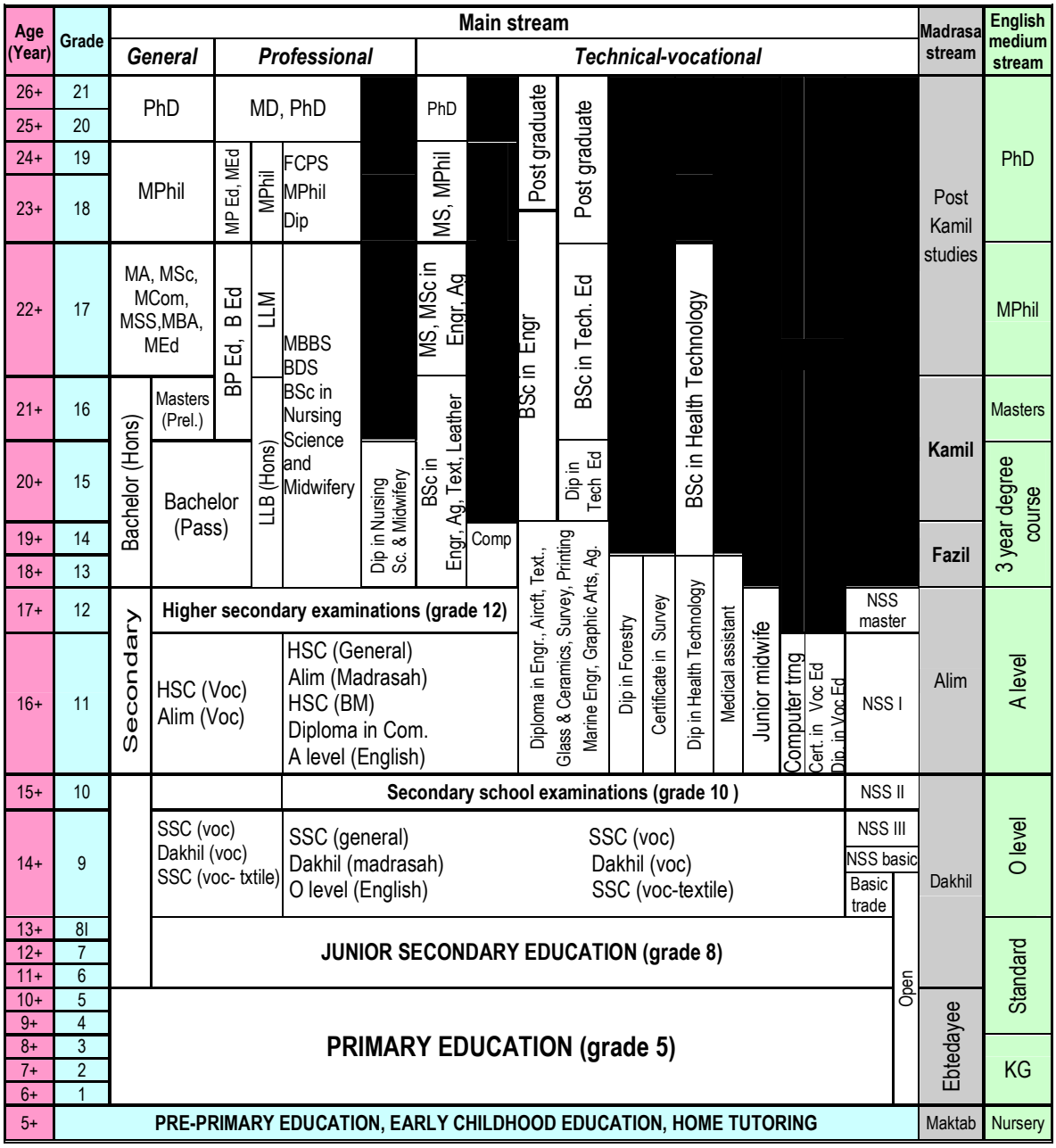
The formal education system consists of three major levels: primary, secondary and tertiary. With an entry age of six years, the primary cycle last for five years. Primary education is provided through three major institutional arrangements: General, madrasah (includes subjects on Islamic education) and English medium (only private). Primary education under all these three streams is general. The total number of primary schools in 2005 was nearly 80,397 with a total enrolment of 16.23 million. The completion rate, however, is less than satisfactory. In 2004, only 76.4 per cent of students completed their studies, which means a large number leave without basic education or opportunities for skill training.

The secondary cycle lasts for seven years with three sub-stages: three years of junior secondary, two years secondary and two years of higher secondary. Public examinations are held at secondary and higher secondary levels.[11] After grade eight, secondary education has an additional technical-vocational stream. Transition to general or technical education is possible for madrasah and English-medium students after they have completed the equivalent of grade 8 (junior secondary), grade 10 (secondary) and grade12 (higher secondary). As of 2005, about 9.6 million students were enrolled in 18,500 secondary schools and 6,685 madrasahs. It has to be noted that the transition rate from primary to secondary education is very low. In other words, a large number of children enter working life without preparation. Moreover, it is a challenge to retain students for the whole secondary cycle. According to a recent estimate, only 15 per cent of secondary school entrants receive a secondary certificate, and 5 per cent a higher secondary certificate.

Tertiary education consists of: General (inclusive of pure and applied sciences, humanities, business and social sciences), madrasah, technical-vocational and professional (see figure 1 below). There are 31 public general and specialized universities, 51 private universities, 223 institutes for professional training and 1,500 colleges affiliated with the National University and the Bangladesh Open University (BOU). Graduate and post-graduate studies can be followed in general, technical, engineering, agriculture, business studies and medical streams. Bachelor degrees require four or five years of study; master's degrees require one or two years; higher degrees require between two and six years of study.

[11] Draft education policy recommends two levels up to secondary, moving to eight years of primary education followed by four years secondary.

Figure 1. Structure of general, technical-vocational and professional education and interrelations



Non-formal education (NFE)

The Bureau of Non Formal Education (BNFE) under the Ministry of Primary and Mass Education (MoPME) is responsible for non-formal education programmes which are implemented through NGOs. The programmes comprise post-literacy and continuing education for human development including skill training. Based on market surveys, locally suitable skill training covers trades like tailoring, poultry, fishery, cow and goat rearing, bee-keeping, block batik, repairing of cycles and rickshaws etc., with the aim of helping to reduce rural poverty by empowering the rural poor (Government of Bangladesh, 2005).

Education's share of the national budget

The education's sector share of GDP is very meagre at 2.7 per cent, ranking 151 among the countries of the world (in 2005). In 2008-09 the annual budget was 2.27 per cent of the Gross National Product (GNP); this is less that in the previous year.

5. Technical and vocational education and training (TVET): General

5.1. Development of TVET in Bangladesh

TVET did not receive much attention until the establishment of The East Pakistan Board of Examination for Technical Education in 1954. The Technical Education Act 1967 (No.1) of 1967 of the then East Pakistan Assembly established a statutory body named the East Pakistan Technical Education Board, which is now the Bangladesh Technical Education Board (BTEB). The BTEB is responsible for organising, supervising, regulating, controlling and developing technical and vocational education including the award of qualifications.[12]

In 1960, the Directorate of Technical Education (DTE) was established. This was a further milestone in the development and expansion of TVET in Bangladesh. The DTE is responsible for all technical skills training activities falling under the Ministry of Education (MoE) (whereas the BTEB has a wider remit).

Until the mid-1990s vocational education was delivered via 51 vocational training institutes (VTI) operated by the Ministry of Education and 11 technical training centres (TTC) run by the Ministry of Labour and Employment. In mid-1990s, the Secondary School Certificate (SSC) (vocational) course was introduced at secondary level, as a further step to promote vocational education alongside general education.

[12]Detailed roles of the BTEB are: developing and prescribing courses of instruction; organizing the development of learning materials; granting recognition to education institutions offering its courses; prescribing conditions governing student admission; monitoring teaching-learning activities; holding, conducting and regulating the examinations of affiliated institutions and awarding diplomas and certificates to the successful candidates; supporting UNEVOC activities (the UNESCO TVET project); liaising with other international organisations involved in TVET activities; and undertaking research.

5.2. Present TVET qualification structure

Figure 2 illustrates the complexity of TVET qualifications in Bangladesh. The National Skill Standards (NSS) is a vocational qualifications framework that was introduced in 1985 (it is described in detail in a subsequent section of the report). There is a hierarchy of NSS levels on one dimension: Basic Trade, NSS Basic, NSS III, NSS II, and Diploma. However, NSS III and NSS II are integrated with SSC (vocational) in the general education system. In addition, there is a pattern of certified vocational training (independent of the NSS hierarchy) administered by different government ministries, private institutions and NGOs, with or without BTEB accreditation.

5.3. Present TVET institutional capacity

TVET courses of two weeks to four years duration are offered by different government and private technical schools and colleges, polytechnics, commercial Institutes, technical training centres and specialized institutes. As of 2007-08, 292 government and 3,956 private TVET institutions offering different technical and vocational courses (with a capacity of 341,340 students) were affiliated to BTEB (BTEB, 2006, p. 61).

Diploma-level vocational training. There are currently:

- 175 polytechnic institutes offering diplomas in engineering (47 public and 128 private) with a capacity of 35,472 students.
- 114 agricultural training institutes offering a diploma course (13 public and 91 private) with a capacity of 10,010 students.
- 7 private institutions offering a diploma in commerce is with a capacity of 616 students.
- 29 textile institutes (6 public and 23 private) offering a diploma in textile engineering is offered in with a capacity of 2,400.
- 8 public medical assistant training schools with a capacity of 650.
- 58 private health technology and services institutions offering a diploma in health technology with a capacity of 1,920.
- 38 nursing institutes offering a diploma in nursing science and a certificate course in midwifery.
- The Bangladesh Institute of Marine Technology offers a diploma in marine technology with annual capacity of 40.

Certificate level training:

- The SSC (vocational) course is offered by 64 technical schools and colleges (TSCs), 48 technical training centres (TTCs) and 40 textile vocational institutes in the public sector and by 1,674 private institutions; with a total capacity of 131,300.[13]

[13] TTCs also offer NSS II, III and Basic with a total capacity of 27,473.

- The HSC (vocational) course is offered by 64 public TSCs with a capacity of 16,680. The HSC (BM) course is offered by 1,334 private institutions with a capacity of 119,250.
- TTCs also offer many short-term demand-specific courses at the request of the employers.
- There are 475 (3 public and 472 private) computer training institutions with a capacity of 14,000.
- A certificate in health technology course is offered in 77 private health technology and services institutions.
- 6 private institutions with an annual capacity of 660 offer NSS III and II courses.
- 8 public and 75 private institutions offer the NSS basic course with a capacity of 4,140.

The Department of Youth Development (DYD) has 55 youth training centres with a capacity of 70,060, offering courses of one week to one year in various trades. The Department of Women's Affairs operates 64 women's training centres with a capacity of 9,825 which offer skill training programmes in various trades of three weeks to six months duration. The Directorate of General of Health Services (DGHS) operates eight medical training schools and the same number of institutes of health technology both of which offer a wide range of diploma and certificate courses.

Figure 2. Present TVET qualifications structure in Bangladesh

<table>
<tr><th>School year</th><th>Entry qualification</th><th>Qualifications</th><th>Course duration</th><th>Further study</th><th>Providers</th></tr>
<tr><td>Open</td><td>Open</td><td>Basic Trade</td><td>360 hrs (3-6mths)</td><td>NSS Basic</td><td>Govt., NGO and private voc training institutes</td></tr>
<tr><td>Apprent-ice (open)</td><td>One-year work experience + pre-qualifying exam pass</td><td>NSS Basic</td><td>360 hrs. (3-6mths)</td><td>NSS III</td><td>Govt., NGO and private vocational training institutes</td></tr>
<tr><td rowspan="4">8</td><td>Class VIII</td><td>Certificate courses in different trades</td><td>2 weeks-6 months (360 hrs)</td><td>NSS Basic
NSS III
NSS II</td><td>Govt. TTC, TSC, DYD training institutes, BMET and other ministries; NGOs; private institutes</td></tr>
<tr><td rowspan="2">Class VIII + one-year work experience + pre-qualifying exam pass</td><td>NSS III</td><td>1 year</td><td>NSS II</td><td rowspan="2">Private</td></tr>
<tr><td>NSS II</td><td>1 year</td><td>-</td></tr>
<tr><td>Class VIII</td><td>SSC (voc)
SSC (voc-textile)
Dakhil (voc)</td><td>2 year</td><td>NSS III
NSS II
HSC (voc)
Alim (voc)</td><td>TSC, TTC, and private (voc) schools & madrasahs</td></tr>
</table>

8/10	Class VIII/SSC	Tech. & Voc. Certificate, Part 1	1 year	Tech. & Voc. Certificate, Part 2	TTTC & private vocational institutes
		Certificate in Leather Technology, Part 1	1 year	Certificate in Leather Technology, Part 2	Govt. & private leather technology institutes
9	Tech. & Voc. Certificate, Pt 1	Tech. & Voc. Certificate, Part 2	1 year	-	TTTC & private vocational institutes
	Certificate in Leather Technology, Pt 1	Certificate in Leather Technology, Part 2	1 year	-	Govt. & private leather technology institutes
	SSC voc class IX & pass in skill test	NSS III	-	-	Bangladesh Technical Education Board (BTEB)
9+	SSC voc & pass in skill test	NSS II	-	-	BTEB
10	SSC, SSC (voc) Dakhil (voc) equivalent	Computer training	3-6 months	-	Govt. & private training institutes
		Diploma in Vocational Education	1 year	-	Vocational teachers training institute
		Junior midwife	18 months	-	Govt. & private hospitals & institutes
		HSC (voc) HSC (BM) Dip in Com	2 year	Bachelor degree Diploma	TSCs, HSC (voc) & HSC (BM), colleges, private schools and madrasahs
		Diploma in Engr. in: Civil/Arch Electric/Electronic; Comp Sc; Mech/Power/Auto; Textile	4 year	Dip in Tech Ed BSc in Tech Ed BSc Engr.	Public and private polytechnics TTTC
		Diploma in: Aircraft; Printing Tech; Marine Tech; Ceramic Tech; Survey Tech; Textile Engr; Agriculture	4 year	-	Public and private monotechnics Specialized govt. & private institutes
		Dip in Forestry Survey Final Certificate	3 year	-	Govt. & private ag./forestry institutes
		Medical assistant		-	Medical assistant training schools
		Certificate Course in Sec Science	1 year	-	Govt. commercial institute
		Integrated Acupuncture	3 Months	-	Private health institute
		Certificate in: Dental Tech; Lab Med Tech; Physio Tech; Radiology Tech; Pharmacy Tech; Nursing Tech; Optical Refrac Tech; Med Mkt & Mng; Para Med Tech; Intgd Med Tech	1 year	-	Govt. medical training schools and Institute of Health Technology Private health technology and services institutes
10/12	SSC/HSC/ equivalent	*Diploma in:* Dental Tech; Path Tech; Physio Tech; Radiology Tech; Pharmacy Tech; Intgd Med	2-3 year	B.Sc in Med. Tech.	Govt. medical training schools and Institute of Health Technology

		Tech; Nursing Tech; Optical Refrac Tech			Private health technology and services institutes
		Dip in Animal Health & Production Tech	1 year	-	Veterinary Training Institute
10+	SSC/equivalent & Trade Certificate	Vocational Teacher's Training Certificate	1 year	-	Govt. VTTI
	SSC/equivalent & Cert. Course in Survey	Dip in Com	2 year	-	Private
12	HSC Alim HSC (BM) Alim (BM) HSC (voc) Alim (voc) A level	Dip in Nursing Science & Midwifery	3 year	-	Govt & private
		BSc (Hon.); BCom/BBA; BSc in Engr; BSc in Agriculture; BSc in Text. Engr; BSc in Leath. Tech; MBBS; BDS; BSc in Nursing	4 year	Higher studies (MSc; MCom; MBA; MS; MPhil & PhD)	Govt. & private general, engr., ag., universities Textile College, Leather Technology College Medical & dental colleges Nursing Institute
		BSc in Med. Tech.	4 year	Higher studies	Medical institutes
13	Dip in Med. Tech	Dip in Tech. Ed.	1 year	BSc in Tech. Ed.	Technical Teacher's Training College (TTTC)
14	Dip in Engr.	BSc in Engr.	4 year	BSc Engr.	Dhaka Univ. of Engr. and Technology
14.5	Dip in Eng.	BSc in Tech. Ed	1 year	Higher studies	TTTC
15	Dip in Tech. Ed.	BEd; BPEd	2 year	MEd; MPEd	BEd College & BPEd College
15/16	BA/BSc (Pass/Hons)	MSc; MCom; MBA; MS/M; Phil; PhD	2-4 year	-	Different universities
22	MBBS	Dip in Med Ultrasound	1 year	-	Private medical institutes

Technical teacher training:

There is only one government Technical Teacher Training College (TTTC) in the country with a capacity of 120. It offers a diploma in technical education and a BSc. in technical education. The government Vocational Teacher Training Institute (VTTI) with an intake of 80 offers a diploma programme in vocational education.

Some recent steps:

The government has recently expanded training programmes in line with the increasing demand for TVET:[14]

- Steps to establish a technical school in each upazila, initially in 64 upazillas;
- ICT introduced as a subject in the SSC (vocational) in grades 9 and 10;
- Introduction of a short-term trade course in polytechnic institutes and in technical schools and colleges (TSCs) to meet local and international market demand;
- Updating the entire SSC (vocational) syllabus (introduced in January 2009).

[14] http://www.techedu.gov.bd/news.html

5.4. NGOs in TVET

Research indicates that there are over 100 NGOs offering skills training in Bangladesh (GTZ, 2002). As mentioned, NGOs provide a variety of non-formal skills training; some also offer the SSC (vocational), NSS II, III and Basic. A few Basic Trade courses are offered by NGOs in selected trades accredited by BTEB and according to the practical convenience of the NGOs. The most notable NGOs operating technical skills training programmes are:

UCEP (Under-privileged Children's Education Programme): UCEP operates 43 integrated general and vocational schools/training centres with two or three shifts a day and over 25,000 students at any given time. Integrated general and vocational education goes up to grade 8 of secondary education. Seven technical schools offer training in a number of trades followed by employment support services.

MAWTS (Mirpur Agricultural Works Training Institute): MAWTS, a self-financing institution, offers a three-year mechanical course; a four-year engineering diploma; a one-year instructor training course; 1-14 week modular training courses in 60 trades, and customized courses as required by clients.

VTESS (Vocational Training and Employment Support Services Programme): For poor and distressed children and youths and adolescents from urban slums, VTESS (through four vocational training centres) provides low-cost, needs-based vocational training in 14 different trades, followed by employment support services. Each year, 1800 people benefit from VTESS activities.

CARITAS: 27 mobile skills training units, each operating in 4 trades, cater to hard-to-reach areas.

BRAC (Bangladesh Rural Advancement Committee): In a large anti-poverty programme, BRAC conducts enterprise and employment development training aimed at enhancing the income of the ultra-poor.

5.5. TVET in industry

The Labour Market Survey commissioned by the Technical Assistance (TA) team suggests that large industrial units have their own training systems for developing skilled workers; some have training units, but most prefer on-the-job training. Investigations in the context of this study confirm employers' lack of trust in the competence of graduates from the TVET system when it comes to operating their own machinery.

Industry-managed training centres: Despite the above, it is noted that some employers' associations have training establishments. For example, the Bangladesh Garments Manufacturers and Exporters Association (BGMEA) established the Institute of Fashion and Technology (BIFT) which is a fully self-financing training institute. The Chittagong Skills Development Centre (CSDC) has been established by employers, in a model of industry-government cooperation. The Bangladesh-Korea Technical Training Centre is a similar institution established by the Bureau of Manpower Employment and Training (BMET) in cooperation with Korean employers. Some manpower recruitment agencies have their own training institutions to supply workers for overseas employers, for example, for the

Singaporean construction industry.

5.6. Government expenditure on TVET

Data on government expenditure by sub-sector of education indicate the proportion allocated for technical education. This is the lowest of all sub-sectors and has been very meagre over the years.

5.7. The National Skills Standards (NSS): Beginning of a qualifications framework?

Institutional arrangements for skills development began with the provision of 'Trade Courses'. One set of institutions called vocational training institute (VTI) were under the Ministry of Education, and another set called technical training centre (TTC) were under the Ministry of Labour and Manpower. These institutions were intended to prepare skilled manpower for the industries that were being established in the country at the time. Curriculum development and the awarding of certificates was the responsibility of the BTEB. Courses lasted for was two years, and were expected to provide the skills to enable someone to work independently in a given trade. To embark on one of the courses, candidates needed to have completed grade 8 education. No other standards were available to categorize skill levels at that time and no qualification framework existed.

The initiation of a vocational qualifications framework began in the early 1980s when vocational training curricula and qualifications were designed according to five levels of National Skill Standards (NSS): Basic, III, II, I and Master, the lowest being the 'Basic' and the highest 'Master'. The initiative involved the Bangladesh Technical Education Board (BTEB), the Directorate of Technical Education (DTE), the Bureau of Manpower Employment and Training (BMET) and industry representation, under the overall guidance of the National Council of Skills Development of Training (NCSDT) headed by the Minister of Labour and Manpower.[15]

Initially the NSS Basic was implemented in training institutions administered by the Ministry of Labour, the Ministry of Education and by approved private and non-governmental institutions. The NSS Basic was (and still is) a 'short' training course of 360 hours undertaken over three or six months. The entry requirement for the NSS Basic is completion of grade 8. However, a year of work experience in a particular trade qualifies someone to take the BTEB pre-qualifying test and then to take NSS Basic examination disregarding prior educational level. It needs to be noted that other ministries were operating skills training of varying durations (two weeks to six months), but their programmes are not accredited for certification by the BTEB, although trainees do get a certificate from the respective training institution. Courses for NSS III and II were implemented in 1985. The entry requirement for NSS III was eight years of schooling for most trades and 10 years for a few. The entry requirement for NSS II was NSS III. Skill testing was the responsibility of BTEB.

[15] The NCSDT was founded in 1979 through a government resolution authorised by the President. It comprised high-level representatives from 22 different organisations including Parliament, concerned ministries, labour unions and chambers of commerce and industries. It was responsible for: the establishment of trade standards; the formulation of national policies relating to vocational education; reviewing national skill development needs; and the coordination of all formal and non-formal skill development programmes.

A World Bank report (World Bank, 1989) observed a large variation in goals and clients amongst the non-standard training courses offered by different ministries, NGOs and private initiatives. The report recommended the establishment of minimum standards for facilities, equipment, curriculum and competence of instructional staff, and assigned BTEB to establish and manage an accreditation programme for these institutions.

A job market survey by the Bangladesh Technical Education Board (BTEB) and the Directorate of Technical Education (DTE) in 1993-94 investigated the situation of vocational training institute (VTI graduates) in 285 industries representing the major sectors of industrial employment. The survey revealed that workers identified as skilled workers were not classified according to the NSS. However, both workers and management as expressed the desire to have NSS classification in their industries. This indicates that the NSS systems were not being followed in industry, and in fact some of the people surveyed were not aware of them.

The above findings were confirmed by interviews during the present study. It seems to be the case that the NSS never received a major push in the training system or in the industry sector. Except for some very senior personnel in the TVET system, staff have either little or very unclear ideas about the NSS qualifications. Industries do not follow the qualifications in recruitment processes or in staff classification.

The main explanation is that vocational training institutions were, and still are, providing the short courses of 360 hours for the acquisition of the NSS Basic level. Although this is the first level of the NSS qualifications, institutions are not generally familiar with the NSS as such. Teachers and trainers have not been systematically made aware of it nor has it been communicated across industrial units for consideration in employment and for recruitment purposes. Training and testing in relation to NSS need special arrangements, these are not in place. The competency-based training or testing (CBT) is not fully implemented. It was acknowledged by the respondents in the present study that instructors are not prepared for it.

Institutions offering Basic Trade courses (i.e. the level before NSS Basic) generally lacked arrangements for quality training. Socio-economic studies indicate that as a result graduates struggle to improve their economic and social status; many experiencing downward mobility compared to their parents (Rafique, 1996).

Weaknesses in skill training and qualifications were further reflected in a Bangladesh Technical Education Board (BTEB) study conducted in 1993 addressing the exportability of skilled manpower from Bangladesh and remittances received. The study showed that remittances were much less than would have been the case with the export of skilled rather than unskilled or unclassified manpower (Rafique, 1994).

Another BTEB survey (1991-92) on the training needs of skilled workers employed by the Power Development Board identified that the performance competence of skilled workers was less than 40 per cent of the requirement. The survey report (Rafique, 1994) clearly indicated the non-availability of skill standards and skill standard tests. These findings

pointed to the need for job analysis involving job descriptions, job specifications and personnel specifications set out according to NSS.

Quality improvement in skill training depends on the quality of the training setting, delivery of instruction and supervision of trainees' practical work. Personnel involved in training reported that poor teacher-trainee ratios have a negative effect on quality. Government training institutions operate with big shortage of teaching staff. This can be attributed to the Ministry of Education's neglect of the sector.

5.8. Alignment of TVET with the secondary education system

It became clear during this study that the grade 8 requirement to access a two-year trade course (introduced in the early stages of TVET in Bangladesh) is very unpopular with potential trainees and their families and communities. The main reason for this is the perception that a vocational certificate in the absence of a Secondary School Certificate (SSC) would carry little social recognition or status. Vocational graduates known as 'mistri' (mechanic) have lower social esteem and the general view is that it is poor achievers who choose to take vocational trade courses. Moreover, trainees are not accepted by industries for internships for two reasons (i) not being properly approached by the training institutions concerned and (ii) not perceiving any benefits in such internships.

Students completing junior secondary level education (grade 8) generally aspire to a career with good prospects and a positive social image. NSS III qualifications at the vocational training institutes and technical training centres hold attraction in these regards. This study confirmed a general ignorance about the NSS qualifications and their relationship to skills levels. Employers were either unfamiliar with them or did not value them for their purposes. The work placement elements of the qualifications were most probably unfulfilled.

In contrast, polytechnic institutes are seen as an attractive option, particularly the Diploma in Engineering with an entry requirement of SSC (grade 10) and a clear upward pathway with economic and social rewards.

Three important studies were conducted between 1990 and 1994:

- The training needs of skilled workers for Power Development Board (PDB) Power Plants.
- The exportability of skilled manpower from Bangladesh.
- The job market for graduates from vocational training institutes.

As a result, it was decided to introduce vocational education at secondary level by developing an additional curriculum (alongside the secondary and higher secondary general courses) with about 30 per cent vocational content. The curriculum was prepared by the Bangladesh Technical Education Board (BTEB) taking account of labour market demands for skilled technicians. It has been in place since 1995, as the SSC (voc.) and subsequently the HSC (voc.) followed by the HSC (Business Management).

At present, after completion of grade 8 students can enter a two-year SSC (voc.) course at technical schools and colleges (TSC), technical training centres (TTC), specified private

secondary level schools (general and madrasah) and at some other training institutions. The SSC (voc.) has proved attractive to students for several reasons:

- It counts as equivalent to a general education SSC which gives openings to higher qualifications e.g. the two-year HSCs (voc. or Business Management) courses at TSCs, specified private colleges or Business Management Colleges. With an HSC students can take a work-related route via NSS 1; transfer to a higher level diploma course with some credit; access general higher education i.e. as well as technical and professional fields.[16]
- It is also considered equivalent to NSS III (even if only the vocational part of grade 9 is passed) and to NSS II (even if only the vocational part of the SSC is passed), thereby qualifying students to enter the world of work.
- It provides access to polytechnic institutes where a 15 per cent quota is reserved for them. Students can enrol on courses lasting three to four years.

There is evidence that vocational education at secondary and higher secondary level is well-accepted (Das, 2007). There are weaknesses however, and these revolve mainly around practical training:

i. The vocational component of the curriculum constitutes a small part alongside general education subjects such as English language and mathematics. Although these subjects are of a functional nature the curriculum need further modification to equip students with vocational skills. The system was introduced on a pilot basis, to be evaluated. However, this did not take place and the initiative is now administered as part of the regular national education system.

ii. The in-institution skill training takes place at general schools (where limited facilities have been built on the campus) or using the facilities of a local technical training centre (VTI or TTC or private or NGO centre). Students do not find this arrangement a very good one as far as skill training is concerned, nor do they derive any motivation for acquiring high level of skill. The result is that they do not acquire sufficient competency. Rather they pay more attention to other subjects that they might wish to study at bachelor and higher level at university. In actuality, students with a SSC (voc.) certificate do not enter the employment market. Thus any vocational skills they may have acquired are not deployed in an occupational setting.

iii. Competent instructors for vocational training are not available in secondary schools, particularly in private schools and in the rural areas. Schools offering the SSC (voc.) are essentially only interested in getting the government incentive grant that comes with this provision called the Monthly Pay Order (MPO). Students take the course because they get a stipend and also because it is considered easier to get higher scores in vocational subjects.

iv. Some knowledgeable authorities involved in more quality vocational training are highly critical of the SSC (voc.). They argue that it is a 'conjured arrangement' particularly the fact that students who have successfully completed vocational courses

[16] These are provisions; but not implemented to date.

at grades 9 and 10 at secondary level are be treated (and certificated) as having NSS III and NSS II respectively, even if they are not successful in other SSC subjects. The reality is that vocational skill level is not a reliable determinant of competence. Therefore the qualifications do not carry any meaning in relation to the development of skilled manpower to meet labour market needs. It is argued that education and skill are different. The NSS has no correspondence with the actual skills levels for which vocational qualifications have been decided. It was a policy decision bureaucratically manipulated with no understanding of what vocational qualification is expected to mean.

v. Although enrolment in the SSC (voc.) shows a rising trend, students' interest in gaining skills is not the reason for this. Rather, rather their interest is in higher examination scores and the stipend mentioned above.

vi. A large proportion of SSC (voc.) graduates are unable to pursue HSC (voc.). The regulations state that further study has to be in the same trade but training institutions do not have the capacity to offer a wide range of trades at the higher level. Students therefore do not have any choice but to move to general education or discontinue.

The World Bank conducted a tracer study in 2006. It involved 2,300 graduates of 'the certificate and diploma level courses of both public and private institutions' and found a very low post-qualifying employment rate (9 per cent) among these graduates. While 45 per cent were pursuing further studies, 46 per cent were unemployed. The lowest employment rate was found among the SSC (voc.) graduates (4 per cent) and the HSC (Business Management) graduates (5 per cent); and it was they who also had the highest proportion pursing further education. Graduates of the HSC (voc.) had a slightly better employment rate (30 per cent), followed by diploma graduates (21 per cent) and basic trades (18 per cent) (World Bank, 2007). Admittedly, these courses only account for small proportion of the total enrolment. However, two things are important to note here: first, the SSC (voc.) students take more interest in pursuing further education and the proportion of graduates seeking jobs is not known. Secondly, more studies are needed e.g. combinations of labour market analyses, comprehensive tracer studies on students in different trade areas (occupations), employment conditions, and evaluations of the appropriateness of skills levels for employers. Only then can a comprehensive assessment of the SSC (voc.), the HSC (voc.) and the HSC (BM) and their relationship to NSS II and I levels be made. Such studies are important for providing feedback into the training system.

On the whole, the introduction of the SSC (voc.) and the HSC (voc.) represents an improvement in the qualifications framework. The two qualifications have achieved popularity because they enjoy more social prestige than the stigmatized vocational learning.

A study by the Bangladesh Technical Education Board (BTEB) on the socio-economic status of graduates from vocational training centres and their parents found a decline in the status of the graduates compared to that of their parents (Rafique, 1996). This downward mobility was attributed to the grade 8 entry level which was considered an inadequate basis for acquiring the skill levels to allow upward movement in the job hierarchy.

Recently, a civil society forum called Education Watch Group and another large national

NGO forum named Campaign for Popular Education (CAMPE) have jointly submitted a memorandum to the National Education Policy Formulation Committee 2009 (which has been constituted by the newly elected Government). One proposition is for policy emphasis on the upgrading and quality improvement of technical and vocational skills development at secondary education to match the domestic as well as overseas employment-market needs. To this end, the proposal recommends partnerships between government and non-governmental institutions, sufficient inter-ministerial cooperation and the development and use of innovative approaches. The social demand is that policy attention be directed to attracting larger numbers of students in TVET rather than the present concentration on general education.

5.9. Mobility of diploma graduates

The following mobility options exist for students with a diploma in engineering:

- Enter a four-year BSc (Engineering) course at Dhaka University of Engineering and Technology (DUET) with transfer of credit.
- Enter a one-year Diploma in Technical Education course at TTTC, Dhaka or a one-year Diploma in Vocational Education at VTTI. These graduates can then pursue a two-year B.Sc in Technical Education provided by the TTTC under Dhaka University.

At the present time, students with diplomas in agriculture and nursing do not benefit from similar arrangements.

6. TVET reforms

The period since the establishment of the East Pakistan Technical Education Board in 1967 (now the BTEB) has seen notable growth in and expansion of the industry sector and corresponding increased demand for workers. The TVET system has experienced some growth and diversification of provision; several government ministries have become involved; some large private enterprises have created pre-service and apprenticeship training opportunities and NGOs have created training provision. These developments have taken place in the context of policy shifts such as the denationalisation of public sector industries and the introduction of investment promotion policy to stimulate national economic growth. The Bangladesh Technical Education Board (BTEB) was established in the context of the then prevailing system but with an increase in trade areas. Interviewees from BTEB confirmed that there has not been any ‘major qualifications reform’ except that:

- Polytechnic institutes raised the standard of the Diploma in Engineering in 2004 from a three- to a four-year programme, with the aim of upgrading the status of graduates.
- The National Skills Standards (NSS) III, II and I were integrated with general secondary and higher secondary education grades 9, 10 and 12 respectively through the SSC (voc.) and the HSC (voc.).

Earlier discussions have suggested that a major limitation of the TVET system has been the lack of attention to competence in education and skill training and lack of skill training

appropriate for the world of work. Indeed, competence-based training has been the focus of TVET reform in many countries and has also been seen as way of increasing both quality and quantity. The concept of "competence" focuses on knowledge, skills and attitudes expected of employees in the workplace and the ability to transfer and apply skills and knowledge in new situations and environment.

The EC-ILO TVET Reform Project initiative in has considered the importance of introducing competence-based qualifications organized into a framework of qualifications. This would then support the delivery of modular and flexible courses in order response to the needs of employers in both formal and informal economies. The aspiration is that the responsiveness of TVET institutions be further strengthened through management and teacher training, decentralisation and other organisational improvements - and that all of this will have a positive impact on the employability of graduates. Competence-based qualifications and a national qualifications framework are also intended to assist the underprivileged poor, including women, working children, youth with low literacy levels and the rural population through 'mainstreaming' community-based training into the TVET system.

6.1. The need for a NTVQF

This study ascertained that senior Directorate of Technical Education (DTE) and TVET staff had already taken cognisance of the urgent need to improve the TVET system (including the development of a qualifications framework) in view of a number of problems in the existing system:

- The levels of qualifications known as National Skill Standards were not widely understood, even in the institutions providing the training, nor had there been any attempts to raise awareness across training institutions and amongst employers.
- The levels were not properly set nor curricula designed for competency-based training; skills were not identified and described specific to match the jobs and industry requirements.
- The system did not maintain close links with employment and industry sectors.
- Instructors were not trained to deliver competency-based training nor to support the implementation of a qualifications framework; thus quality training could not be assured.
- There was no legal support for the framework.
- Education and training institutions and industry sector organisations were not aware of the potential usefulness of a framework.
- Monitoring and arrangements for providing feedback to set the system right were absent.

These weaknesses were attributed to the low priority and meagre national budgetary allocation for TVET and even a declining trend between 1998-99 and 2004-05. Expenditure on TVET as a percentage of secondary and higher education expenditure was 3 per cent in 1998-99; 2.9 per cent in 1999-2000; 2.6 per cent in 2000-01; 2.3 per cent in 2001-02; 2 per cent in 2002-03 and 1.9 per cent in 2003-04 and 2004-05 (World Bank, 2007). These figures clearly indicate the low status of vocational training institutions in the education system as a whole.

6.2. A qualifications framework as a policy instrument

The National Technical and Vocational Qualifications Framework (NTVQF) is seen an essential policy tool for accomplishing a wide range of goals in relation to the reform of TVET and the introduction of competence-based education and training. An NTVQF and the associated implementation structures will:

- improve access to education and training;
- streamline the certification of skills;
- promote abilities and other personality attributes of workers or job-seekers to match the requirements of employment settings;
- establish linkages between national educational qualifications and trade qualifications at all levels;
- allow students to access and pursue education and training avenues throughout their lives thereby achieving higher levels of qualification;
- recognize the equivalencies of various qualifications and resolve the problem of dead-ends in education, particularly in TVET;
- allow both formally and non-formally acquired education and skills to be matched against a common set of objective criteria against which individuals' achievements can be calibrated;
- facilitate the recognition of knowledge and skills obtained on-the-job; and
- evolve systems of equivalence between formal, non-formal and informally acquired competence.

6.3. Influences on the NTVQF

The present initiative to develop a framework is donor-influenced. Financial support has come from the European Commission and the ILO is executing the activity with technical experts who are mostly Australians and have experience working in different countries. Three groups have visited Australia and Malaysia to become acquainted with their frameworks. These included representatives from the Directorate of Education (DTE), the Bangladesh Technical Education Board (BTEB), the Bureau of Manpower Employment and Training (BMET), and from employers' groups and an association of manpower export agencies. The first most of these people heard about an NQF was when they were contacted by the ILO in relation to a study visit.

The model of competence-based education adopted in the NTVQF appears to be very much in-line with the UK and Australian approaches which focus on workplace functional analysis, as opposed to the French, German and Austrian approaches which have a broader notion of occupational competence.

In a recent paper prepared in connection with designing the framework, references are made to NQFs in the Philippines, Sri Lanka and Vanuatu, suggesting that these have been considered in the conceptualisation of the Bangladeshi NTVQF (Moore, 2009). Aspects of frameworks from other countries have also been incorporated, based on the prior experiences of project experts. In addition, because of the growing significance of the European

Qualifications Framework, the level descriptors for the Bangladesh framework have drawn substantially from the EQF, with some modifications in terminology.

6.4. Scope of the NTVQF

As stated at the outset, the proposed NTVQF is a partial framework covering all TVET qualifications at certificate and diploma level. It will also cover on-the-job training in both formal and informal sectors and training provision offered through various organisations that is not currently standardized and not recognized by a nationally authorized body.

The development of the NTVQF has adopted a sector-based approach with the four industry sub-sectors that were targeted by the EC-ILO project (because of their growth potential) as the starting point. It is intended that the Asian Development Bank (ADB) and Swiss Development Cooperation (SDC) will cover a further four subsectors and that the forthcoming World Bank Vocational Training Project will support the different training activities through relevant institutions.

6.5. The design process

The planning and preparation stages of the design process have been undertaken by expatriate professionals and ILO-employed national staff. A series of preliminary orientation and consultation meetings for the various education sectors were organized by the ILO in 2007. These addressed *inter alia*: the importance of a qualifications framework in the context of TVET reform; definitions and essential features of an NQF; the proposed NTVQF for Bangladesh and its relation to existing qualifications structures and potential learning pathways.

At this stage the key actor was the ILO, working in cooperation with the Directorate of Technical Education (DTE). Investigations in relation to this study revealed that the ILO also contacted the industry sector and other institutions engaged in training (for example the Bureau of Manpower Employment and Training [BMET] and NGOs). These organisations are now familiar with the idea of the NTVQF. To enhance their interest and understanding, some concerned personnel were supported by visits to selected countries under a fellowship programme. The process to date involves the four priority sector industries, 13 occupations and their required skills levels:

Table 1. Priority sectors and occupations for standards development

Sector	Occupations
Agro-food Processing	Food Technician, Packing Technician and Baker
Transport Equipment	Welder, Electrician and Fitter
Leather and Leather Products	Supervisor, Machine Maintenance Technician and Machine Operator
Information Technology	Graphic Designer, Web Developer, IT Support Technician and Software Testing

	Technician

Sector Industry Skills Committees (ISC) have been formed to identify units of competence for each occupation. Each ISC has an expert technical subcommittee to define/describe the skills and the broad structure of competency (outcome of learning) required in specific occupations. These are linked to levels of qualification to help employers recruit employees to match their needs.

A Curriculum Development Committee (CDC) of the Bangladesh Technical Education Board (BTEB) consisting of BTEB curriculum experts and industry representatives will develop the units of competence more fully.[17] These will be sent back to the ISC for wide industry circulation and public comment in order to ensure the validity of the industrial content. The CDC may then need to revise the competency units. As such the process ensures the development of competency-based curricula closely linked to the skills standards identified by employers.

Further down the line, the CDC will develop learning and assessment materials for the units of competence to reflect the requirements of qualifications, which will again be forwarded to the relevant ISC for endorsement. The ISC may advise review/change of the materials. Once the occupational qualification with associated units of competence plus learning and assessment materials are passed by an ISC, they will go through the Executive Committee of the National Skills Development Council (ECNSDC) for registering with the BTEB and thereafter for publication.

Some concerns have been expressed from with the existing TVET system. Although the goal and process of developing a transparent qualification system is accepted as sound in principle, questions are raised as to whether all sectors and occupations can be dealt with in this way, especially in the absence of a special project and special resources. This creates a dilemma: whether to proceed with the development of NTVQF for the short- and long-term benefit of the country or whether to focus attention on the immediate need to train large numbers of people to respond to overseas employment demand. Senior BMET officials reported that they are very engaged in offering short orientations and training for people wanting to go overseas. This suggests that, on the one hand, there is an emphasis on the development of a qualifications framework, but that, on the other hand, training needs have to be fulfilled on ad hoc basis as per client requirements. Some of the short-term training is contracted out to organisations involved in manpower export. Such training courses are expected to be brought into the NTVQF in due course.

In the course of the present study, it surfaced that some Industry Skills Committee members were not familiar with NTVQF. Some members came to know about it in late 2007, when the ILO took the issue to them seeking their support/participation. Employers reported that they already looked for competence rather than relying on certificates. At the current time industries are willing to cooperate with the ILO and the government on the NTVQF with the

[17] The CDC is not yet formed.

expectation that the government will be serious in sustaining the process.

The introduction of a system of "ladderisation" similar to that in some other Asian countries is seen as an opportunity for domestic and migrant workers to become upwardly mobile: upgrading their skills through training in an institution; leaving to pursue work; returning at a later date for more training; back into the workforce at a higher level, and so on.

6.6. Structure of the NTVQF

The draft framework as presented in Table 1 below consists of six TVQF levels and two pre-vocational qualifications, according to job classifications. The qualifications structure that currently exists (NSS) is accommodated into the proposed one, which is generally accepted by stakeholder groups. It is however acknowledged that the levels of the framework have been suggested by expatriate experts and other local project staff (professional) in the ILO, based on their idea of level descriptors by job classification with consideration of existing qualifications by education/training type. The level descriptors in terms of "knowledge, skill and responsibility" for each of the proposed six levels are presented in Table 2. Examples of job classification by proposed qualification levels with corresponding level descriptors and qualifications that would fit the NTVQF levels are presented in Table 3.

Table 2. Proposed NTVQF and existing qualifications

TVQF levels	Education type			Current qualification structure	Job classification
	Pre-vocational education	Vocational education	Technical education		
TVQF 6			Diploma in Engineering or equivalent	4-year Diploma	Supervisor / middle manager /sub-assistant engr. etc.
TVQF 5		National Skill Certificate 5 (NSC 5)		NSS Master	High-skilled worker / supervisor
TVQF 4		National Skill Certificate 4 (NSC 4)		NSS 1 / HSC (voc. / BM) Year 11 & 12	Skilled worker
TVQF 3		National Skill Certificate 3 (NSC3)		NSS 2 / SSC (voc.) Year 10	Semi-skilled worker
TVQF2		National Skill Certificate 2 (NSC 2)		NSS 3 / SSC (voc.) Year 9	Basic-skilled worker
TVQF 1		National Skill Certificate 1 (NSC 1)		NSS Basic / Basic Trade course	Basic worker
Pre-voc. 2	National Pre-vocational Certificate NPVC 2			None	Pre-vocational trainee
Pre-voc. 1	National Pre-vocational Certificate 1			None	Pre-vocational Trainee

	NPVC 1				

It is difficult to make any precise assessment as to whether the relationship between jobs classified and proposed qualification levels is going to be a realistic one. Chairs and members of Industry Skills Committees could not comment because the whole idea is foreign to most of them. It is apparent that the broad approach is very much within the UK/Australian approach to competence-based education. This means that the intention is for learning outcomes to be developed by industry bodies, based on functional analysis of occupations/jobs. Outcomes are viewed as the drivers of vocational education.

Table 3. Proposed NTVQF levels and level descriptors

TVQF level	Knowledge	Skill	Responsibility	Job class
6	• Comprehensive actual and theoretical knowledge within a specific study area with an awareness of the limits of that knowledge	• Specialized and restricted range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems	• Manage a team or teams in workplace activities where there is unpredictable change • Identify and design learning programmes to develop the performance of team members	Supervisor / middle manager /sub-assistant engr. etc.
5	• Very broad knowledge of the underlying, concepts, principles and processes in a specific study area	• Very broad range of cognitive and practical skills required to generate solutions to specific problems in one or more study areas	• Take overall responsibility for completion of tasks in work or study • Apply past experiences in solving similar problems	High-skilled worker / supervisor
4	• Broad knowledge of the underlying, concepts, principles and processes in a specific study area	• Range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information	• Take responsibility, within reason, for completion of tasks in work or study • Apply past experiences in solving similar problems	Skilled worker
3	• Moderately broad knowledge in a specific study area	• Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	• Work or study under supervision with some autonomy	Semi-skilled worker
2	• Basic underpinning knowledge in a specific study area	• Basic skills required to carry out simple tasks	• Work or study under indirect supervision in a structured context	Basic-skilled worker
1	• Elementary understanding of the underpinning knowledge in a specific study area	• Limited range of skills required to carry out simple tasks	• Work or study under direct supervision in a structured context	Basic worker
Pre-voc 2	• Limited general knowledge	• Very limited range of skills and use of tools required to carry out simple tasks	• Work or study under direct supervision in a well-defined, structured context	Pre-vocational trainee

TVQF level	Knowledge	Skill	Responsibility	Job class
Pre-voc 2	• Extremely limited general knowledge	• Minimal range of skills required to carry out simple tasks	• Simple work or study exercises, under direct supervision in a clear, well-defined structured context	Pre-vocational trainee

The experts and consultants working on the NTVQF project claim that the framework draws on similar frameworks in Sri Lanka, the Maldives (in the South Asian Association for Regional Cooperation, along with Bangladesh), Vanuatu (similar to the Sri Lankan framework) and Malaysia. In other words, different aspects of these countries' frameworks have been found to be worth adopting in the Bangladesh situation, according to the project consultant. However, some critics argue that the NTVQF draws too heavily on the UK and Australian frameworks and that this is problematic given different levels of technological and industrial development.

A few comments can be made:

i. Whilst observations differ with respect to suitability to the Bangladesh situation, the NTVQF has largely been accepted especially amongst those with a view to the future, with a modern industrial outlook and those familiar with the nature of overseas employment markets.

ii. The major implementing authorities in Bangladesh, such as the Bangladesh Technical Education Board (BTEB), the Directorate of Technical Education (DTE) and the Bureau of Manpower Employment and Training (BMET) are not yet properly equipped to fulfil the management requirements in terms of skills training provision and skills assessment. It is understood, however, that present and forthcoming TVET-related projects are likely to improve capacity improvement in these over-arching institutions as well as contributing to TVET development.

iii. Industry as a whole is not sufficiently familiar with this framework and its potential effectiveness, and in the short run the framework is not likely to enjoy wide acceptance in the workplace. However those who have already been involved in the process tend to express their long-term interest in the new system, subject to the government continuing to play the prime role.

Table 3. Examples of occupation classifications and qualifications aligned to proposed TVQF levels

NTVQF level	Job classification	Brief level descriptor	Qualification example
6	Supervisor / middle manager /sub-assistant engr. etc.	High theoretical and factual knowledge and wide range of skills. Manage work teams and determine training requirements	Diploma of Engineering (Mechanical)
5	High-skilled worker / supervisor	High level of factual knowledge and skills in a specific area. Works autonomously and supervises work teams	NS Certificate V in Engineering (CNC Programming)
4	Skilled worker	Broad factual knowledge in an area and wide range of skills. Able to work	NS Certificate IV in Engineering (Mechanical

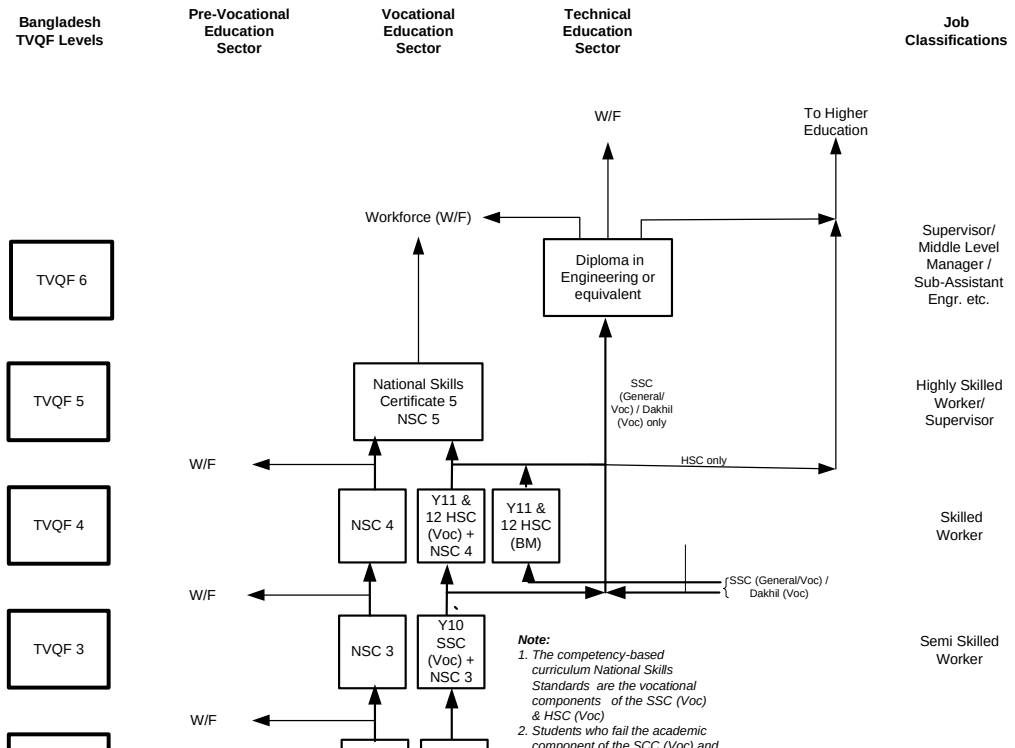
NTVQF level	Job classification	Brief level descriptor	Qualification example
		without supervision	Trade – Machinist)
3	Semi-skilled worker	Some factual knowledge and skills in a specific area and able to work with minimal supervision	NS Certificate III in Engineering (Surface Finishing)
2	Basic-skilled worker	Limited factual knowledge and skills and able to work under frequent supervision	NS Certificate II in Engineering (Fabrication)
1	Basic worker	Very limited general knowledge and skills and able to work under close supervision	NS Certificate I in Engineering (Foundation)

6.7. Analysis of proposed pathways

Flexible pathways with scope for the horizontal and vertical mobility of the workforce between education, training and work are important. The NSS provided a qualifications pathway for vocational training graduates but only to a limited extent. The subsequent introduction of the SSC and HSC (voc.) widened the scope for vertical mobility and also offered a link between general education and technical-vocational training. This was however not placed in a comprehensive national qualifications framework for the TVET system as a whole. The reform of TVET and the development of the NTVQF have led to the pathways presented in figure 3 below. These are currently at the consultation and finalization stages. The pathways offer entry points into the TVET skills hierarchy and corresponding qualifications for different categories of students/trainees with varying levels of general education; exit points to join the work force; openings for upward movement, and accommodate prior learning. They remain indicative at the present time and in that spirit have been incorporated in the National Skills Development Policy (Final Draft 2009) and the National Education Policy (Final Draft 2009). In general, the stakeholders we consulted were positive about the pathways which prefigure the acceptability of the qualifications framework as a whole, provided there are some further improvements in the system, for example, indicating movements from work to education.

Figure 3

Pathways for Technical & Vocational Education



Source: Moore, I. 2009. *A Proposed TVQF for Bangladesh* (Dhaka, ILO).

6.8. Roles of stakeholders and users

Stakeholder involvement in the proposed NTVQF is important to ensure its relevance, quality and success in implementation. This discussion will be limited to those who will have key roles to play.

Government as the principal provider: The Government of Bangladesh was the main stakeholder of TVET until 1990 - as provider, employer and financier. A few private (commercial) institutes and NGOs began providing TVET in the mid-1970s, when manpower export became an important phenomenon. Since 1990, with the help of a government incentive (the Monthly Pay Order [MPO] covering a proportion of salaries, private TVET institutions have increased spectacularly and now outnumber government institutions. In 2007-08, out of 4,248 TVET providers 292 (6.9 per cent) were government-funded and 3,590 (93.1 per cent) were private (BTEB, 2008, p. 61). The number of private TVET institutions continues to increase day by day.

The BTEB is responsible for assessment and the award of qualifications for its affiliated institutions. It is worth emphasizing here that a number of providers are not affiliated. Apart from the private providers, non-affiliated providers include 18 government ministries that provide TVET; semi-government TVET providers such as Bangladesh Small and Cottage Industries (BSCIC), Bangladesh Industrial and Technical Assistance Centre (BITAC), Bangladesh Jute Mills Corporation (BJMC), Bangladesh Railway (BR) and Bangladesh Power Development Board (PDB) are working in the area of TVET (Siddiqi, 2007, p. 32); literally hundreds of NGOs; industry associations such as the Institute of Fashion Technology of Bangladesh Garments Manufacturers Export Association (BGMEA) and the Chittagong Skills Development Centre (CSDC). These non-affiliated providers usually offer short skill training courses according to standards they set themselves and award their own certificates.

Donors' leading role: Donors have played a significant and longstanding role in financing TVET. For example, the Dhaka Polytechnic Institute was established with the financial help from the Ford Foundation. In the early 1980s, UNEVOC (UNESCO's International Project on Technical and Vocational Education) helped to establish the National Council for Skill

Development and Training (NCSDT) secretariat under the Bureau of Manpower Employment and Training (BMET) in support of National Skill Standards (NSS). The EC-ILO and the Asia Development Bank (ADB) are currently implementing separate but coordinated projects to reform TVET and introduce the NTVQF. The World Bank is preparing to support another project to complement the existing projects. Donors' financial support for the development and reform of TVET and NTVQF is therefore conspicuous. Interviewees noted that donors are driving the proposed NTVQF processes. Indeed, most Industry Skills Committee (ISC) members only came to know about the NTVQF through ILO representatives; and work related to the NTVQF is mainly undertaken by ILO project personnel.

The role of employers: Before the country's liberation in 1971, both public and private sectors were employers of TVET graduates; while a significant proportion were self-employed. Since liberation, the government has continued to be the major employer. However, over the past three decades overseas employers have absorbed a significant proportion of the TVET graduates. With the growth of the private sector, demand for TVET graduates from local institutions has increased and private employers have become important stakeholders. Ongoing TVET reform and associated projects appear to have increased interest among private sector employers in the domestic market as well as suppliers of manpower to overseas markets. The role of industry in the NTVQF is emphasized and the private industry sector has subsequently assumed an important. NTVQF processes have so far excluded the informal sector which employs nearly 80 per cent of the total labour force. It is of course not easy to involve the informal sector, as it is very diverse and not organized. However, a separate component under the TVET Reform Project is exploring ways to bring employers and skill learning through the informal sector under the remit of the qualifications framework.

The role of the Bangladesh Technical Education Board (BTEB): BTEB is the only legal organization concerned with the quality of TVET. It achieves this through developing curricula, organizing examinations, issuing certificates and affiliating private and NGO TVET providers. However, during the course of this study it surfaced that the effectiveness of BTEB has been compromised by the rigid bureaucratic governance of its line ministry (the Ministry of Education). The TVET Reform Project and associated projects have attempted to address this. According to BTEB, industry involvement in curriculum development is underway. Greater involvement is likely as the NTVQF develops, particularly through the Industry Skills Committees (ISC) and the Curriculum Development Committee (CDC) which operate under BTEB. With extensive efforts through the donor-supported reform projects, the suggested model has a chance to be successful.

The role of providers not affiliated to BTEB: It has been noted that a lot of government, semi-government, NGO, and private institutions (including those which are not-for-profit) offer skills training, but their courses not accredited by BTEB. They develop their own training and issue their own certificates. This is an anomalous situation from the point of view of skill standardisation and qualifications. It would be appropriate to bring them under a coherent system through some regulatory measure to be implemented under the BTEB. Indeed, this is viewed as one of the purposes of the NTVQF.

6.9. The Recognition of Prior Learning in the NTVQF

As we have seen, diverse institutions under several government ministries and outside of the government have their own skills training programmes. NGOs in particular organize skills training for their target groups, usually within economically and socially disadvantaged populations, taking account of local needs and opportunities. These training courses are not standardized or recognized. The recipients of such skills training in Bangladesh, unlike in developed countries, constitute a large beneficiary group and therefore recognition of their skills is an important issue to be addressed by the qualifications framework.

In a way, the National Skill Standard system, introduced in 1985, already had provision for the recognition of prior learning (RPL). The NSS Basic allows transition to NSS III and NSS II. Irrespective of educational qualifications, individuals access the Basic Trade Course (360 hours) in public or private institutions and achieve the NSS Basic certificate. It is also the case that individuals who have acquired trade skills through informal learning or on-the-job training can take the NSS Basic certificate examination if they successfully pass a "pre-qualifying test" organized by BTEB. Interviews with BTEB personnel and documents received from BTEB reveal that although this RPL system has been in existence, it has not being administered due to lack of staff within BTEB.

Interviews and document reviews suggest that the idea of RPL enjoys widespread support amongst TVET stakeholders. However, a number of problems within the current context have been identified. These include:

- No agreed definition of RPL in the Bangladesh TVET system.
- Lack of national standards, methodology and tools for RPL.
- Very few institutional incentives to respond to market need for RPL especially in the informal sector. Correspondingly, a need for strategies to improve access for the underprivileged.
- Lack of a support system, quality assurance mechanisms and record keeping arrangements for RPL.
- Limited or negligible assessor skills for RPL (Arthur, 2009).

Candidates for RPL in Bangladesh will come mainly from disadvantaged categories, including: the rural poor; working children; girls and women; poor adults; people with disabilities; those who work in formal and informal sectors with skills but no literacy; adolescents (boys and girls) who have no literacy or who have dropped out of primary or secondary education; youth who failed to complete the minimum schooling required to enter the current TVET system (grade 8) or who drop out after grade 8.

The EC-ILO TVET Reform Project states, with good reasons, that these groups are mostly excluded from substantive participation in publicly-funded TVET. There is no question about the need for them to acquire marketable skills so that they can find decent employment. Some of them work in both informal and formal sectors and have achieved considerable skills in certain trade(s) through on-the-job training, but this is not recognized for qualifications. Additionally, those who receive training through various poverty alleviation

programmes need to be able to upgrade their skills in order to improve their standard of living.

RPL provided through the NTVQF could increase access to TVET for these groups and thereby contribute to their future income generation capacity. To that end, the TVET Reform Project foregrounds RPL. As illustrated in table 2 (above), the NTVQF will consist of two pre-vocational levels to cater for under-privileged and poorly educated groups in society. After that are five certificate levels and one diploma level. Additionally, under the NTVQF, training organizations will be able to issue a Statement of Attainment for specific units of competence when less than the full programme has been completed.

The Skill Development Project (SDP) includes a number of activities which will impact on disadvantaged and excluded groups. Given that most potential beneficiaries cannot participate in long-duration training because of work commitments, the project focuses on the development and implementation of short, modular competence-based courses. The Curriculum Development Committee (CDC) under BTEB will retain responsibility for developing such courses in line with the competency standards identified by occupations through the Industry Skills Committees (ISC). Courses offered by NGOs, recognized by industries as relevant, considered effective in terms of employment outcomes and in trade areas where competency standards are already available, may be transformed by the CDC into a competence-based format for recognition by the BTEB and acceptance on the NTVQF.

Through the National Skills Development Council (NSDC), the government will ensure that over time, all government agencies that deliver skills training will review their curriculum so that it aligns with the new NTVQF. In this way, participants in government-funded skills development programmes will increasingly have the opportunity to receive nationally recognized qualifications for the part of their programme that is based on industry skills standards. It is generally accepted that realising the full benefits of RPL will require capacity enhancement in key agencies such as the Directorate of Technical Education (DTE), the Bangladesh Technical Education Board (BTEB) and the Bureau of Manpower Employment and Training (BMET).

7. NTVQF: Implementation, institutional structure and governance

7.1. Key institutions responsible for implementation

All of the foregoing analysis leads to a summarized view that successful implementation of the proposed NTVQF will be contingent upon cooperation and coordination among several institutions to fulfil the interrelated responsibilities of:

- Policy making for skills development, ensuring effective linkages amongst all the key partners in the skills development process and providing appropriate support to the functioning of the total system.
- Operating a system for competence-based education and skills training that matches the needs of industries and the employment market; and awarding qualifications reflecting the skills levels of trainees.

- Determining skills levels by occupation, developing training curricula corresponding to skills levels, affiliating through inspection the institutions which are to engage in providing training as per the approved curriculum, accrediting courses that reflect skills in demand, conducting examinations/assessment and awarding diplomas/certificates within the national qualifications framework.

The National Skills Development Council (NSDC) is mandated to establish policy to guide the overall TVET system in terms of market responsive skills development that contributes to the achievement of national development goals. The NSDC is also responsible for:

- Establishing effective coordination between: the 18 different government ministries that are currently engaged in skills training and awarding qualifications; industry associations and other employers' groups; NGOs providing skill training and private training institutions.
- Financing institutions and social partners within and outside government.
- Establishing supporting institutions, for example, to conduct research on market needs, suitability of curricula, employability of graduates and/or industry culture and participation.
- Monitor the performance of the institutions with designated responsibility for implementing the training programmes and the qualifications framework.

It is through the NSDC that the much-needed correspondence between the skills development training system and the national qualifications framework will be established. The NSDC will take all necessary measures to motivate all organizations providing skills training (whatever the form and duration) to adjust their curricula to the NTVQF standards. The Executive Committee of the NSDC is positioned to execute the decisions of the NSDC and provide feedback on the implementations status.

The Bangladesh Technical Education Board (BTEB) remains responsible for registering training institutions (in public and private sectors), accreditation of courses, development of curricula, examination and assessment of skills and assuring the quality of the certification of qualifications. The process of curriculum development makes use of Industry Skills Committees (ISC) to ensure market-responsiveness in line with competency standards. Technical expertise is provided by the expert Curriculum Development Committee (CDC). The present anomalous situation whereby supply of skilled labour does not reflect demand should be resolved through these activities.

The Directorate of Technical Education (DTE) under the Ministry of Education is responsible for the mainstream public TVET institutions. The Director General, DTE (acting as the National Project Director of the EC-ILO TVET Reform Project) has a pivotal role in upgrading skill standards (with the support of BTEB), establishing training curricula and facilitating the implementation of the qualifications framework. The DTE and BTEB will both collaborate with industry and commerce in the planning of training programmes that facilitate the acquisition of the knowledge, skills, attitudes and values necessary for self-development and organization-development in enterprises where graduates work. The industry attachment of training courses in the existing DTE-administered training system will

be continued to support the implementation of the qualification framework.

The Bureau of Manpower Employment and Training (BMET) under the Ministry of Expatriate Welfare and Overseas Employment (MEWOE) is another important provider of skill training in the public sector and will continue its programmes when the NTVQF is implemented. Some BMET courses are not accredited by BTEB, but are expected to be adjusted to the requirements in the near future.

Several other ministries run trade-specific skill training programmes within their projects, generally promoting self-employment. These can be of varying durations and are not currently recognized in the existing skill standards for certification by BTEB. The NTQVF will assure the quality of these training programmes and accommodate them, with adjustments as necessary.

NGOs and other providers of non-formal skills training will also be encouraged to utilise the new standards and support materials so that the skills component of their programmes can be nationally recognized.

7.2. Key systems for implementation

Over and above the key institutions involved in implementation, reference needs to be made to some of the systems that are going to be put in place:

The private training institutions' share in skills training activities has spectacularly increased over the past decades. It is to be noted however that most private TVET institutions suffer from poorly equipped workshops and laboratories, lack of training materials, inadequate classrooms and libraries, lack of qualified teachers and untrained administrators. During our investigation into the issue, DTE and BTEB personnel reported that very few private TVET institutions and NGOs are able to provide quality skill training at present. As mentioned, 93 per cent of TVET institutions and 80 per cent of TVET enrolments are in the private sector. This more than justifies the current emphasis on capacity enhancement in the private institutions. However, some cautionary notes were sounded and recommendations made that support to these institutions should be rationalized and tied to quality output measures. It was also noted that approaches may be different for organizations with and without BTEB accreditation affiliation.

The Bangladesh Skills Quality Assurance System will develop, implement and monitor a new national set of quality standards to ensure nationally consistent and high quality training and assessment services for learners. The new quality assurance system will apply to the nation's skills development system, which forms part of the *National Skills Development Policy* currently in draft form (referred to in a subsequent section of this report). The BTEB will have the major responsibility for quality assurance. Affiliation will be a precondition according to legal and /or regulatory conditions set by BTEB. BTEB will also make sure that curricula, training delivery facilities and skills assessment processes satisfy the standards corresponding to qualification levels.

An apprenticeship system**,** which has not worked satisfactorily before, is still considered an

important component of skills development.[18] The Bureau of Manpower, Employment and Training (BMET) under the Ministry of Labour will be responsible for implementing the system and apprentices will receive nationally recognized qualifications from the NTVQF. It is understood that promotional measures taken through the Ministry of Labour (MOLE) and BMET:

> …the apprenticeship system will be strengthened and expanded so that more employers, master craftsmen and learners, from both the formal and informal economies, can participate in the new system.. …. Apprentices will receive nationally recognised qualifications under the NTVQF, and although incentives may initially be limited to those occupations identified as a priority by industry, the government will explore the potential of making apprenticeships available at all levels of the NTVQF in all industry sectors and will explore links between apprenticeships and the new system of national system of national service for the youth of Bangladesh.[19]

7.3. Governance

The National Skill Development Council (NSDC), as the highest and apex body, will oversee and monitor all activities related to the development and implementation of the NTVQF including policy formulation, approval of legislation and coordination of public and private institutions. The composition of NSDC is widely representative which will increase its effectiveness regarding the development of a new TVET system.

It has to be recognized that the current TVET system has developed tremendous complexity. The big governance challenges comprise inter-agency coordination and coherent regulatory measures, effective institutionalization of partnerships, implementing the NTVQ system through the training delivery structure on the basis of competence-based training and quality assurance, and establishing decentralized management for the organization of training activities at district and upazilla levels. Another dimension of complexity in governance comes from possible political interference that may slow down the process.

The NSDC is expected to ensure necessary coordination amongst ministries and between the government and other actors and to facilitate all other institutions in their roles. The latter function may require new regulations (and these will need to be framed with due respect to the autonomy of BTEB), for example, requiring industries to support skills development training processes and/or incentivizing trainees to participate. The NSDC and its Executive Committee is expected to have its own secretariat, staffing and government budget allocation; and will seek cooperation from any organization, as necessary, to carry out its functions.

Decentralized planning and management of skills development activities are to be undertaken by regional units of the Bangladesh Technical Education Board (BTEB) and the Directorate of Technical Education (DTE). These are in the process of being established. The NSDC is also expected to establish district-level skills development committees, where all ministries involved in skills development can meet on a regular basis to deal with planning and

[18] The reasons stated are: lack of industry interest and indifference of the authority to the enforcement of the relevant law of 1962.

[19] ILO, 2009, p. 29. *Bangladesh Skills Development Policy* (*Final Draft*). (Dhaka, ILO).

resourcing the development and improvement of programmes in line with local needs.

In order to be able to efficiently perform its enhanced role with respect to the NTVQF, BTEB (currently operating under the Ministry of Education) will be empowered to implement its full legislative terms of reference. Its staffing levels will be increased and its procedures enhanced to enable it to manage technical functions such as curriculum development, inspection and assessment of skills. BTEB will also be strengthened to ensure it can provide rigorous quality assurance through the accreditation of courses and the registration of training providers. This should help to enhance the status of training. It will work in cooperation with the Ministry of Labour and Employment, the Ministry of Industries and the Ministry of Expatriate Welfare and Overseas Employment, and other line ministries, to develop and review skill standards and curricula. BTEB will coordinate its activities with NSDC and be responsible for maintaining the standards set out in the NTVQF and ensuring that all ministries fulfil the requirements of skill standards within the framework of qualifications. The capacity strengthening of BTEB means that it has all the needed facilities and enjoys full autonomy, a situation which does not pertain in present practice.

7.4. National policy as an instrument of governance

One of the problems regarding the acceptance and implementation of the NSS (as a qualification framework) was the absence of a national policy to support it. The present TVET Reform project with a timeline of five years has one component which is dedicated to the development of policy. Entitled, “TVET Policies, Systems and Legislation”, it covers:

- TVET policy and implementation mechanisms.
- Legal and regulatory environment.
- Structure and coordination of TVET system.
- Management, governance, flexibility, effectiveness and efficiency of TVET institutions.
- Monitoring of resources and outputs and accountability in TVET.

In addition, the TVET Reform Project has technical consultancy support to formulate a national policy by taking inputs from relevant agencies and groups of people from within the government and outside. The first phase of consultation and review of the draft policy by the National Policy Consultative Group was completed on 16 September 2009. All of the above signifies the importance attached to policy reform. Therefore, the NTVQF will be implemented within a national policy framework, specifying clearly the role and nature of engagement of each actor.

The previous apex body, the National Council for Skills Development and Training (NCSDT), responsible for developing policy and coordinating skills development activities, was virtually non-functional. One explanation for this is that the Council was chaired by the Minister of Labour and Manpower but comprised other ministers as members. This ministry did not have sufficient authority over other ministries to the effective in a coordinating role. The Council reconstituted in 2008 as the National Skills Development Council (NSDC)

headed by the Prime Minister and is now a high-profile inter-ministerial body with representation from private sector employers, public-private partnership entities, NGOs and private training institutions, civil society, schools and universities (total members: 36).

Given the fragmented institutional structure of TVET in the country (the private sector and NGOs disjointed from the public skills-training system) the toughest challenge for the Council is to work out an umbrella policy. It must be noted that skills development is a central theme subsuming formal education, non-formal education, industry development, enterprise development, and community development. Policy must take account of the diversity in these policy fields but also be cohesive enough to ensure consistency and complementarities across them. With continuing change in skill requirements in the world of work today, the uniting policy is to encourage skills development as a lifelong learning process.

A National Skills Development Policy (NSDP) Consultative Group was formed with representatives from the key stakeholder groups (e.g. government institutions, private industry/employers' associations, NGOs and civil society) in order to maximise participation in policy formulation. Six working committees were formed to draft policy statements following an outline prepared by the project consultants and endorsed by the Policy Consultative Group (PCG). The committees could co-opt additional members if they wished to.

The draft policy was discussed in PCG meetings on 2, 9 and 16 September 2009. Attendance at these meetings revealed a range of responses to the process of preparing the draft. The following findings emerged:

- The participation of sector committees (key stakeholders) were symbolic, as they requested the ILO staff (consultants) to draft policy statements on their behalf; thus the key role player was the ILO.
- Some members see the Policy Consultative Group (PCG) as overrepresented by government agencies; industry representatives are the second major group and other groups have nominal representation.
- The informal sector is not represented at all in the PCG.
- It was noticeable that only a few members actively participated in the consultation meetings; the majority remained passive.
- With a low level of participation from interest groups outside of the government, a key concern is whether a decentralized system is viable.
- Although skills development activities are to be industry-led, the important industry sectors are not represented in the PCG, nor are industry sectors likely to play a very effective role through the NSDC Executive Committee.

The draft national policy paper appears to be an inclusive statement covering the relevant issues. It seeks to: "Establish a clear vision and reform agenda for skills development having improved quality and relevance of skills duly indicated by qualification levels." As a guide to

skill development strategies and implementation activities, the policy will support coordinated actions across all parties. The policy emphasizes strengthening the workforce by linking skills development to other economic, employment and social policies. It supports lifelong learning to promote the employability of the workforce in line with changes in the economy and market needs and also stresses the need to create decent jobs. The central theme is strengthening the relations between government, industry and civil society by developing a broader span of skills beyond the traditional conception of technical and vocational education and training, to include:

- the full scope of pre-employment and livelihood skills training, including TVET and apprenticeships;
- education and training for employed workers, including workplace training; and
- employment-oriented and job-related short courses, for both domestic and international markets.

The role of the NSDC is critical in making the policy and the NTVQF work as intended. Headed by the Prime Minister, the NSDC with its functional Executive Committee is expected to "implement a new vision for skills development in Bangladesh".

7.5. National Skills Development Policy and National Education Policy, 2009

By stating that "skills development stands at the interesetion of a number of policy fields including education, non-formal education, labour, employment and industry development" the skills development policy suggests a necessary link with education policy. In fact, the new (drfat) education policy includes the pathways as proposed in the NTVQF. The skills development policy and the education policy complement each other. That the education policy has given significant weight to TVET is evident in the following:

- In the latter years of primary education (grades 6-8), which is a part of compulsory education, all students (children aged 12-13 years) will receive pre-vocational education.
- Following grade 8, a short course of 6 months duration will entitle the students to qualification at level 1 of the national skills standards of the new qualification framework.
- After grade 9, there is scope to complete secondary school in four years through technical-vocational education and acquire skills standards 2, 3 and 4 of the NTVQF.
- On completion of grade 10, students with national skills level 4 can have their credit transferred in order to pursue higher level technical education through polytechnic institutes and thereafter further education for professional degrees in engineering, textiles, agriculture etc.

According to the education policy statement, students' competencies at each level of TVET will be taken into account. The experience of the present SSC and HSC (voc.) suggests that unless school facilities are developed for competence-based TVET training, the skills standards (NTVQF levels 1-4) will be actually be achieved (industry attachment is not likely for secondary school students). As such, education policy appears to have provided for an integration of skills qualifications with educational levels. This may enhance the popularity of technical-vocational education i.e. lead to greater social acceptance of TVET and in turn to

increased demand for skills training. This may encourage the participation of industries in supporting the development of skills through the school system.

The implementation of the National Skills Development Policy (NSDP) seems to derive strength from the assertion that the government will assume primary responsibility for education and pre-employment training and for training the unemployed; encourage social partners to engage in further training and employers to provide opportunities for work experience. It is also stated that "the government will move to implement the National Skills Development Policy with all haste, through a well resourced and clearly stated strategy" which includes adoption of the NTVQF as a necessary part of it.

With regard to stakeholder participation in policy formulation, this investigation has revealed that policy working groups were formed with representation from different stakeholder groups. Moreover, the Industry Skills Committees (ISC)/ Sector Working Committees (SWC) were represented on the National Skills Development Policy Consultative Group.[20] These institutions working for policy formulation, skills identification by occupation, curriculum development and implementation, are working with enthusiasm at the present time. The TVET Reform Project is providing technical and financial support. Some high ranking officials who were interviewed opined, however, that in most cases the participation of industry representatives – considered as the most important stakeholder in the process – remains problematic (as it was in the past). Special mobilizations efforts drew them into the EC-ILO project, but this may be more difficult when special project support is withdrawn.

7.6. Donor-supported projects that facilitate the NTVQF

Two ongoing and complementary projects, the TVET Reform Project and the Skills Development Project (SDP) supported by the EC-ILO and the ADB respectively, will facilitate the implementation of the NTVQF. They have components addressing: the problems in governance structure and decision making; coordination mechanisms: awareness and knowledge-building among partner organisations to increase participation, and institutional capacity building (referred to above).

For example, component 3 of the TVET Reform Project "Strengthened TVET Institutions through Improved Knowledge and Skills of Managers and Teachers" is intended to upgrade or develop systems of TVET management, fortify teacher training for teacher qualifications and build the capacity of managers and teachers to deliver flexible and demand-driven training programmes. A fellowship programme NTVQF for training managers, industry managers and those concerned with governance and operations has been implemented to raise awareness of the framework as a whole.

Component 2 of the SDP is "Improved Capacity for Quality and Efficiency of TVET Delivery". This is to be achieved by (i) providing in-service training to TVET teachers; (ii) improving institutional capacity at regional Directorate of Technical Education (DTE)

[20]ISC is the term used in the ILO TVET Reform Project whereas SWC is used in the ADB supported SDP Project. They are functionally the same.

offices; (iii) revitalizing two existing TVET teacher-training institutions; (iv) strengthening the capacity for short competence-based programmes in selected public and private training institutions; and (v) strengthening of the capacity of the DTE for planning, research, and social marketing. The project will pilot item (iv) in private TVET institutions and will enter into training partnerships with industry associations in the Sector Working Committees (SWC).

7.7. How the implementation of the NTVQF is supported and how implementation may support broader policy goals

The NTVQF aspires to support increased productivity and poverty reduction. The National Skills Development Policy is a major plank in its implementation. The experience of implementation will most probably also identify areas where modification of policy is necessary particularly with regard to role players, provision of quality-assured skills training and financing arrangements. The TVET reform process can be a regular periodical exercise based on the experience of NTVQF implementation along with experiences in other fields that have a bearing on the TVET system.

The Bangladesh Technical Education Board (BTEB) has major responsibilities in implementing the NTVQF and will have to work closely with other institutions such as the Directorate of Technical Education (DTE), the Bureau of Manpower Employment and Training (BMET) and the Industry Skills Committees (ISC). To do this effectively requires reform of its governance structures and technical committees (to broaden representation); adequate staffing, and closer relations with industries for curriculum development and assessment. Strengthening of capacity of BTEB will exert a major influence of the activities of the TVET Reform Project and the Skills Development Project.

In the same way, the Directorate of Technical Education (DTE) also needs to strengthen its management capacity with regards to skills training and teacher development, for example as well as preparing itself to work throughout the country. Similar arrangements will be necessary for NGOs and private training providers in order to deliver quality training. Technical and financial support in these regards is planned within the TVET Reform Project and the SDP. Further support is likely to come through the forthcoming World Bank project.

Periodic review of the NTVQF will be a necessary part of overall implementation in order to continually adjust it to the realities dealing with in-demand skills in demand and ensuring adequate skills provisions for trainees to achieve unit competencies and qualification levels. Reviews will be conducted by the BTEB under the direction of the NSDC. These will provide information and insights into the ongoing formulation and reformulation of strategies in line with targets yet also responsive to contextual changes.

8. Financing

The design phase of the NTVQF has been financed by the European Commission as the TVET Reform Project. This included conducting preliminary studies, funding study trips and organizing extensive consultancies. Skills identification processes through Industry Skills

Committees (ISC) and curriculum development ongoing within the same financing agreement. This is limited to four selected priority sectors, as stated earlier.

The same process focusing on four more sectors is to be taken care of by the Skills Development Project (SDP) financed by an ADB loan and a Swiss Development Cooperation (SDC) grant. Many more sectors will have to be covered over time. Financing is going to be a continuing issue in order to carry forward the TVET reform initiative including the implementation of the NTVQF and expanding the scale of the operation. The Poverty Reduction Strategies Programme's commitment to increase the rate of TVET enrolment to 20 per cent of secondary students by 2020 from the present 3 per cent represents a big escalation of financial involvement.

The direct beneficiaries of the TVET and NTVQF are going to be individuals, enterprises and the national economy. It is only to be expected that government, public and private enterprises and individuals share the cost. This study suggests that the picture is unclear in terms of the role of enterprises. There does not appear to be any spontaneous willingness among enterprises to support the skills training process through the development of training institutions or to support individual trainees for training related to apprenticeship. Observations have been made that the government should support the system. Indeed, private training institutions and NGOs expect government support to improve their capacity to offer quality competence-based training and to comply with the regulations of BTEB as well as meeting industry expectations. Conversely, in most cases industries are not offering attachment and placement opportunities to support quality training.

The financing of private secondary schools and training institutions to run the SSC (voc.) is likely to become complicated. At the moment there is special financial grant support to institutions and a system of Monthly Payment Orders (MPO) to individual teachers and employees. In future, financial support from the government is likely to be performance-based which although predicated on rational decisions, is likely to succumb to pressure groups. In other words, once an institution is registered under the MPO system, it is difficult to stop the support or to withhold registration. Moreover, the provision of stipends to students, especially the poor and the disadvantaged will have to be continued and indeed expanded with the adoption of the NTVQF and the promotion of TVET.

A large financial commitment from the government in particular over the years to come will only be secured with a remarkable growth in the national economy and in the social patronage of TVET. Doubts exist among some people in organisations engaged in TVET activities about the practicability of the large volume and complex design of the work that lies ahead. This is particularly noted amongst those in very responsible positions who have borne the pains of disappointment in the course of previous efforts to improve the TVET system, especially when it comes to working in bureaucracy that is dominated by non-technical people at the highest decision-making levels. Others expressing doubt are those who are familiar with the nature of externally supported projects operating under strict conditions who have witness the lack of continuity of activities after the pilot phase. Scepticism also exists amongst those who have not had very positive experiences of partnerships with industry. At the moment, the forthcoming World Bank project is seen as

carrying forward the momentum of the current two projects, in the short- to medium-term at least.

Some senior officials connected with the TVET system, especially with its finances, argue that the BTEB operates with financial strength through its own resource generating mechanisms. The argument goes that limitations on its capacity (infrastructure, manpower engagements etc.) are imposed by the bureaucratic influence of the Ministry of Education. In its future expanded role in relation to the NTVQF, and if it takes full advantage of the autonomy available to it within the current projects, BTEB should be able to become self-financing.

The possibility of diversifying sources of funding was part of the National Skills Development Policy statement, which was discussed with all stakeholder groups. A number of scenarios were conceptualized:

- Encouraging industry participation in training through public-private partnerships.
- Capacity building of training institutions to increase their financial management with a view to managing their own budgets in future.
- Government contribution of one per cent of the remittances from the expatriate workers.
- Increased budgetary allocation from the national purse.

Some industry employers have suggested that the training cost for those who are already in a job may be recouped from employees' salaries as exists in Malaysia. However, that requires a well-organized sector which is, except in a few cases, completely absent in Bangladesh.

9. Impact, sustainability and challenges

9.1. Impact

The foregoing discussions indicate that the Bangladesh NTVQF (within the government's TVET reform initiative) is at a formative stage. Design is ongoing and will be followed by pilot testing before implementation at the national level. Therefore post-implementation impact of the NTVQF is not possible at present. The impact of the process of development is described in the paragraphs that follow.

The process of developing the NTVQF has created a multiplicity of dynamics around the TVET system, which are generally positive. The impacts are of two kinds: one, a change in knowledge, attitude and sense of commitment amongst different stakeholder groups; and secondly, the establishment of some important institutions to carry through development through to implementation.

In the context of a lack of adequate understanding of the role of a qualifications framework, and even indifference to it among most of the stakeholders, the process has created opportunities for building awareness and eliminating indifference which will gradually pick up a stronger momentum. In that way sensitivity to the need for the NTVQF has been established. The exposure of senior personnel from policy-making, planning, training

management, industry management and associations, project management, qualifications regulation etc. to information and insights into the application of the NVQ systems in Malaysia and Australia has greatly informed the Bangladeshi process. Some of these people have been mindful of difficulties that the country might face in the initial stages of implementation.

A qualitative change is apparent amongst industry sectors and their representative forums, in the sense that they are demonstrating interest in the NTVQF. Their recognition within the process has engendered a willingness to contribute to the development of NTVQF and to its utilisation.

Preparatory activities have already developed new skills amongst participants in the process, as far as identifying units of competencies by occupation and skills levels are concerned. The authorities of the different institutions with responsibility for making the NTVQF work are now far more knowledgeable about what is involved. Skill training institutions as well as bodies with management and regulatory roles have been able to evaluate their existing capacity and identify areas for capacity enhancement.

Preliminary activities have already generated a large array of useful data and documents through primary studies, consultations, and workshops etc. These are expected to be of use in follow-up activities and also in the monitoring and evaluation of the NTVQF. Activities have also succeeded in bringing varied but relevant institutions together in a coordinated way to develop a nationally and internationally acceptable system of TVET. Governance issues have also been addressed and it is now clear what new structures and processes will be required in this regard.

The introduction of the NTVQF will of course impose new requirements on training providers, for instance, setting training standards that are consistent with qualifications in the national framework. Many institutions, particularly the small ones, have limits in terms of resource and technical capacity, and realize that they may have difficulty in complying with the requirements. This situation has created an expectation that special support will be forthcoming from government, donors or private sources.

9.2. Sustainability

Institutional strength and commitment from key role players are important if the reforms are to be sustainable and to succeed in attracting students into the system, facilitating their job placement with recognized and respected qualifications. This study suggests that the climate is positive in these regards. The government, the most important role player, has committed to policies and budgetary increases to support the development of TVET. Similarly, the industry sector, another key player, and external donors such as the World Bank have demonstrating interest in ensuring that the TVET reforms and the NTVQF achieve their goals.

The BTEB is the key institution for ensuring that the qualifications framework is sustainable. It appears to be functioning as a close-knit organisation with technical and administrative

facilities in place and financial autonomy. However, this study found that its activities are limited due to undue controls being exerted over its regular activities by the Ministry of Education. However, it seems as if this problem will be resolved and the independence of BTEB will be restored. An enormous volume of responsibility falls to BTEB but this will be eased by the decentralised structure that is planned. Moreover, there seems to be scope for BTEB to generate resources in future.

A final positive in terms of sustainability is that research and information-based activities, necessary to keep the system on track and up to date will be institutionalized.

9.3. Challenges

This study has analyzed the practical challenges of implementing the qualifications framework. A major complicating factor is the wide diversity of training providers, beneficiary groups, types of training, delivery modes, standards, qualifications and certification arrangements. In addition, a large proportion of the population are in receipt of on-the-job skills training through very varied informal channels. The requirement that different types of institution adjust to one coherent skills and qualification structure will necessitate high levels of coordination and control.

The identification of specific skills and units of competence at different levels (level descriptors) by occupation, as the basis for the determination of qualification levels, is a long and hierarchical process involving a number of groups (i.e. industry associations, Industry Skills Committees [ISC], technical subcommittees, the Curriculum Development Committee [CDC] and finally the Executive Committee of the National Skill Development Council [NSDC]). The EC-ILO project is managing this costly and time consuming task for a limited period of time. The overall process will be managed by the BTEB in the longer term and will be a very demanding process if all occupations and trades are to be covered. Thus the preparation of a complete set of skills standards, curricula and training materials and the continuous review of them will be a momentous task for the institutions involved. This is seen as a problem, especially because the exercise is not absolutely home-grown. Rather it is driven by external experts and donor support – a situation which always involves a degree of uncertainty in the economic and political context of a country like Bangladesh.

At present, only 13 selected occupations in four sectors are being worked on in terms of ascertaining units of competencies. This translates into 350 units for which training curriculum and training materials will be required. It is easy to see that the complete task across all important sectors and occupations will be an overwhelmingly large one in terms of the technical manpower and resource investment needed.

Given that implementation will be a big task, interviews with members of the Sectoral Working Committees (SWC)/Industry Skills Committees (ISC) gave the impression that the government and donors will need to take a very proactive role in implementation. However, once donor support is withdrawn, it is not clear how the programme will run nationwide.

This study has indicated that a successful qualifications framework will require changes in

policies and structural innovations at the highest levels of the implementation mechanism. The inclusion of disadvantaged learners appears to be a big challenge for the NTVQF. If workers who have been trained on-the-job are to upgrade their skills through training, then cooperation from their employers is essential. Very often employers are not keen to release employees for substantial periods of time. Employers also fear that employee turnover will be high with increases in certification.

This investigation revealed that, despite concerns, industry is positive about contributing to the new approach to workforce development, especially in the context of emerging market conditions. This means willingness of industries to engage in activities such as the training of workplace assessors. It was noted that support from externally funded project acts as a stimulus in this regard, at the present time. The general feeling was that this situation has a strong chance of continuing once BTEB assumes full responsibility, capacity and authority.

NGOs engaged in providing vocational training especially targeting the poor and disadvantaged argued that they found it difficult (with a few exceptions) to get funds from donors and to secure employment for their TVET graduates. The main reasons were their lack of: the infrastructure, workshop facilities, teaching and training materials, classrooms and libraries that are required to support high-quality skills training. A major constraint to effective TVET delivery is the lack of qualified teachers and very poor teacher development. In the light of these things, NGOs believe that they will find it difficult to comply with the NTVQF and therefore require substantial support from government and donors in reach the necessary standard.

Although major stakeholders have become involved in the NTVQF, it has transpired during this study that their involvement has been spurred on by the external projects rather than by an assessment of the value of the NTVQF in their particular fields. Indeed, some stakeholders do not seem to be fully aware of what the outcomes of NTVQF will be. This may limit the success of the NTVQF in future.

It is not clear at present how informal sector training providers will be brought into the NTVQF and what will be their role in the process. It appears that if the BTEB or any other organization organizes tests/examinations for skill assessment, trainees of these institutions may take part. However, the providers concerned may not be interested in upgrading their facilities so that trainees to achieve the standards set out in the NTVQF.

Quality-assured, competence-based training requires competent trainers, assessors and managers of institutions in large numbers. Development of such personnel is a big task, which cannot be accomplished overnight.

10 Conclusion

In the face of a complex structure of education and technical-vocational training and variable access to TVET, the present NTVQF initiative represents a big step towards TVET reforms to meet national goals of poverty reduction and economic development. As a participatory process, the Bangladesh NTVQF is intended to support a nationally consistent and

transparent system for skills training and qualifications that is acceptable for both national and international employment.

As a tool to support the development of a competent workforce, the NTVQF process has generated enthusiasm amongst stakeholders. However, there is some scepticism about going to scale i.e. full implementation across all occupations, the extent of curriculum development required and the governance of the training and qualifications system across a diversity of institutions. As such, the sustained interest of the government, committed participation of industry and continuation of donor support beyond the pilot phase will be the key to the success of the whole endeavour.

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Appendix I

NATIONAL SKILL STANDARD CLASSIFICATION

(AS APPROVED BY NCSDT)

NSS	Skill Level	Competence Level (Capable of doing)
Basic	Less-skilled	Routine/repetitive job under 100% supervision
III	Semi-skilled	Routine/repetitive job under minimum supervision and new job under direct supervision
II	Skilled	Routine/repetitive job without supervision and new/complex job with supervision
I	Highly skilled	Limited planning of job and coordination and supervision of activities of a group of workers
Master	Master Craftsman	Planning of a new complex job, coordination and supervision of activities of a group of workers, and evaluation and control of quality of work

Source: Rafique, A. 1994. *UNESCO/UNEVOC Case Studies on Technical and Vocational Education in Asia and the Pacific*. (Associated UNEVOC Centre, Royal Melbourne Institute of Technology, Victoria).