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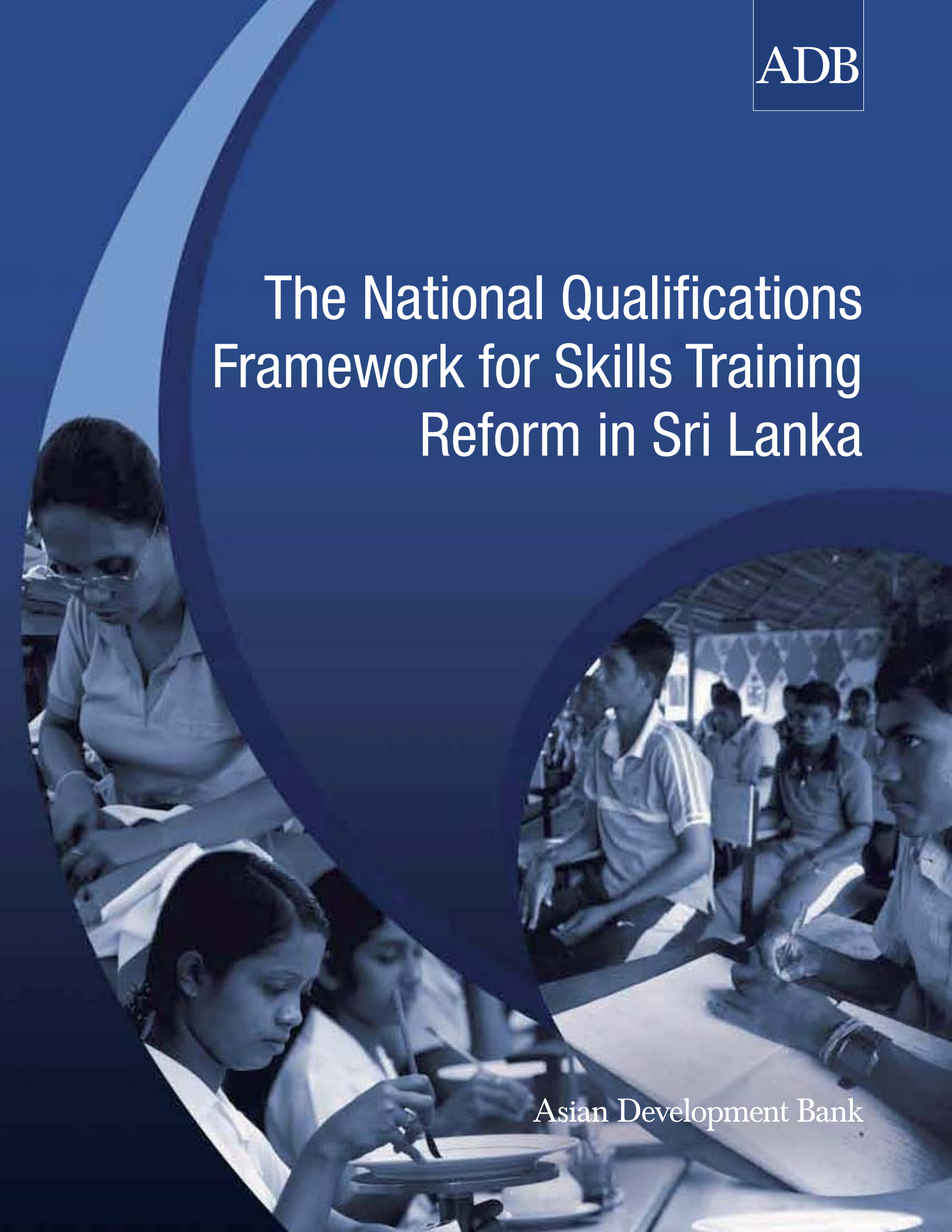
The National Qualifications Framework for Skills Training Reform in Sri Lanka



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Abbreviations

CBT	–	competency-based training
DTET	–	Department of Technical Education and Training
ECTS	–	European Credit Transfer and Accumulation System
NAITA	–	National Apprentice and Industrial Training Authority
NGO	–	nongovernment organization
NITAC	–	national industry training advisory committee
NVQ	–	national vocational qualification
NVQF	–	National Vocational Qualifications Framework
QAS	–	quality assurance system
RPL	–	recognized prior learning
SDP	–	Skills Development Project
SMEs	–	small and medium-sized enterprises
TVE	–	Tertiary and Vocational Education (Act)
TVEC	–	Technical and Vocational Education Commission
TVET	–	technical and vocational education and training
Univotec	–	University of Vocational Technology
VTA	–	Vocational Training Authority

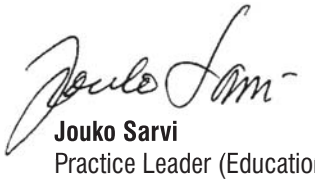
Foreword

The development of a national skills qualifications framework can be successful when a comprehensive and proactive consultative process with stakeholders is followed. It also requires proactive political and technical leadership.

The success of this endeavor in Sri Lanka is receiving regional and international attention. The Asian Development Bank (ADB) has supported the efforts in Sri Lanka through project financing. I very much appreciate the opportunity to share lessons from the Sri Lankan experience with a wider audience through this case study report.

As is evident from the Sri Lankan case, both the process and the end product are important. The process of preparing a skills framework facilitates the necessary dialogue and joint planning among public and private sector stakeholders. The framework, as the end product, not only defines agreed-upon skills competencies and qualifications, but also provides clarity concerning the roles and responsibilities of the government in policy and regulation on the one hand, and those of the private sector in training provision on the other. Thus, a national qualifications framework can provide a useful platform for pursuing public–private partnerships for skills development and can help coordinate human capital development in response to the needs of an evolving labor market.

I am grateful for the contributions of the following colleagues: Tilakaratne Piyasiri, staff consultant, prepared and presented a draft report for ADB's Education Community of Practice; Leah Gutierrez and David Ablett peer-reviewed the draft; Stephen Banta edited the report for publication; Dorothy Geronimo helped with coordination; and Imelda Marquez provided administrative support.



Jouko Sarvi
Practice Leader (Education Sector)
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Executive Summary

Formal technical and vocational education and training (TVET) in Sri Lanka has developed for more than a century, with several networks of training institutions and individual training centers contributing. But development in the absence of national-level planning resulted in a variety of courses with no uniformity across institutions, often lacking the competencies expected by industry. The emergence of a free market economy and the growth of the private sector necessitated a competent workforce to serve in the modern technological environment. Hence the government decided in 1997 to embark on major TVET reform.

The focus of TVET reform was to develop a system to equip the Sri Lankan workforce with the competencies expected by industry and, in achieving this objective, to establish courses with labor market orientation and to offer unified qualifications according to a qualification framework. The Asian Development Bank–assisted Skills Development Project and Technical Education Development Project provided necessary technical inputs and development assistance in this endeavor.

The National Vocational Qualifications Framework (NVQF) of Sri Lanka consists of seven levels of qualification: levels 1–4 covering increasing competencies at the craft level and awarding certificates; levels 5 and 6 for middle-level technical qualifications and awarding diplomas; and level 7 at the bachelor's degree level. Each qualification level is described by the learning demand, the processes expected to be carried out, and the responsibilities of the qualification holder. The qualifications are based on competency standards developed with strong participation from industry. Competency units are clustered to form occupations at the craft level and fields of operation, such as construction technology and manufacturing technology, at the technician level.

The Tertiary and Vocational Education Commission led the formulation and implementation process of the reforms, and the NVQF was officially launched in August 2004. Instructional staffs of major public training networks were trained in the delivery of courses in the competency-based training mode. Forty-five competency standards developed with the facilitation of the Skills and Development Project at the craft level were the first to be implemented in selected centers of the training networks.

The initial development of the NVQF, the competency standards, and the course curricula at the craft level took 2 years before the official launch of course implementation in August 2004. From then onward, implementation of craft level courses; development of the NVQF and course curricula to cover levels 5, 6, and 7; establishment of colleges of technology to deliver diploma courses; establishment of the University of Vocational Technology; and the implementation of the courses covering all levels of the NVQF took 6 years up to 2010.

The process of national vocational qualification (NVQ) development, implementation, and promotion was innovative and challenging. Although some of the concepts of qualification frameworks and competency-based training are universally applicable, the system developed had to be in conformity with the socioeconomic framework and the needs of the labor market

in Sri Lanka. Participation of industry personnel in the development of the framework, in competency standard setting, and in implementation was crucial in making the NVQs relevant to industry needs. Implementation of the programs needed regular review to make necessary adjustments in competency standards, course curricula, qualification packaging, quality assurance, qualification through recognition of prior learning, etc. The promotion of the NVQF within the training providers, among the prospective trainees, in industry, and in the government needed a multifaceted approach for the system to be accepted as credible.

The NVQ system thus developed and implemented now covers 96 occupations at the craft level, 14 fields at the middle technician level, and 4 courses of study ready to commence at the degree level. Training centers situated nationwide deliver 614 accredited courses at the craft level. Nine colleges of technology have been established to deliver diploma courses at levels 5 and 6, and the University of Vocational Technology has been established for level 7. Private sector training providers have actively participated in delivering NVQ courses, and the Accredited Training Providers (Private Sector) Association was formed. NVQs are incorporated in government recruitment schemes and in the salary structure, providing necessary state recognition of the qualifications.

Introduction

Economic and Labor Market Context

The population of Sri Lanka grew from 19.10 million in 2000 to 20.45 million in 2009. About 330,000 pupils enroll in grade 1, 98% of them complete primary education, and approximately 50% pass the General Certificate of Education Ordinary Level examination. More than 100,000 students qualify for university admission, but university admission in 2009 was only approximately 21,000.

The Central Bank of Sri Lanka's *Annual Report 2009* gives key economic indicators and describes the progress of the various economic sectors. Sri Lanka has achieved 3 decades of sustained growth, averaging 4.9% annually since 1977. In conjunction with modest population growth, this resulted in the growth of per capita gross domestic product from $899 in 2000 to $2,053 in 2009. Before the global economic crisis, economic growth in Sri Lanka had been strong, reaching 7.7% in 2006 and 6.8% in 2007. The flow of foreign remittances, approximating 8% of gross domestic product in 2008, plus increased affordability of services such as telecommunications, have contributed to the growth of the economy. Economic growth declined in 2009 with the onset of the global financial crisis, with its negative effects being particularly experienced in industry and services, while agriculture showed growth. Preliminary estimates suggest that the long-term potential growth rate for Sri Lanka is around 6%.

Economic growth declined in 2009 with the onset of the global financial crisis, with its negative effects being particularly experienced in industry and services, while agriculture showed growth

According to the quarterly labor force survey of the Department of Census and Statistics, there were 7.60 million employed and 0.45 million unemployed persons in the fourth quarter of 2009. The declining trend in unemployment rate over the past few years reversed since the first quarter of 2009, largely due to the slowdown of economic activities as a result of the global economic crisis. From 2007, the number of job advertisements declined in construction and manufacturing, according to the Technical and Vocational Education Commission (TVEC) *Labour Market Bulletin* December 2009 issue. The hotel and tourism sector registered the lowest decline, suggesting more job openings in the near future. The steady increase of foreign employment recorded in the past several years also declined in 2009. However, the world economic recession is largely behind this, and the country is coming out of the conflict situation that lasted nearly 30 years. There is optimism for rapid growth.

Development of Technical and Vocational Education and Training in Sri Lanka

The Department of Technical Education and Training (DTET) is the oldest network providing technical and vocational education and training (TVET) in the country. Its first technical college was established in 1893 in Colombo. This network has now grown to 38 technical colleges. Four more networks came into operation from 1968 to 1995: namely the National Apprentice and Industrial Training Authority (NAITA), the National Youth Services Council, the Vocational Training Authority (VTA), and the Sri Lanka Institute of Advanced Technological Education (SLIATE). VTA is the largest network, with more than 270 training centers nationwide, focusing mainly on rural youth. NAITA offers industry-based apprentice training through 3 national and more than 40 regional training centers (Table 1).

Table 1 Student Admission to Full-Time Courses in Training Networks, 2009

DTET	NAITA		VTA	NYSC	SLIATE	Total
	Institutes	Apprentices				
12,175	5,916	11,500	25,534	2,857	5,341	63,323

DTET = Department of Technical Education and Training, NAITA = National Apprentice and Industrial Training Authority, NYSC = National Youth Services Council, SLIATE = Sri Lanka Institute of Advanced Technological Education, VTA = Vocational Training Authority.

Source: Author.

The private sector and the nongovernment sector have also established more than 300 training centers, with the private sector focusing mainly on training for service sector employment

The main focus of these networks is to train craftspersons for the industry sector, but in recent times courses in computing, information technology, health and elderly care, beautician, etc., have been added to cater to the service sector. Few centers offer education and training at the middle technical level leading to diplomas, but there is a short supply of technicians in this segment.

In addition to these networks, some government departments and state corporations have established training centers in their own specializations, focusing mainly on training and skills development for their own staff.

The private sector and the nongovernment sector have also established more than 300 training centers, with the private sector focusing mainly on training for service sector employment. Private sector training centers offering courses to the public are profit oriented and hence tend to choose low capital investment courses catering to the rapidly expanding service sector. The training centers operated by private companies cater mainly to skills development for internal staff or train identified personnel in the use, maintenance, and/or promotion of their products.

The nongovernment sector, which comprises civil society and religious organizations, operates mainly in the less-developed and conflict-affected areas of the country. This sector provides vocational training as well as livelihood training for the development of communities. A diagram showing the training system is given in the Appendix.

Rationale for Reforms and Challenges Foreseen

The Presidential Task Force on Technical Education and Vocational Training Reforms presented its final report on policies, strategies, and action program in 1997. The main thrust of the reforms proposed was to build up the Sri Lankan workforce with quality-assured requisite skills that are essential for industrial upgrading and diversification. In achieving this objective, the TVET system is to be demand driven, in cooperation with the private sector, which will constitute the eventual employers.

The Task Force report identified four areas for reform:

- role of the government;
- involvement of the private sector in TVET;
- links among general education, university education, and TVET; and
- training for self-employment and the informal sector.

With the liberalization of the economy and the acceptance of open-market policies, the dominance of the major sectors of the economy shifted from the state to the private sector. Consequently, those graduating from training institutions had to be employable in the private sector. The report recommended greater involvement of private sector training providers, as they are the main beneficiaries of training, with the government playing a major role in facilitation, coordination, standard setting, and regulation of TVET activities.

TVET needs to be seen as a clear alternative to university education for secondary school leavers to acquire knowledge and skills that will lead them progressively to certificate, diploma, and degree qualifications, and prepare them for productive employment. These views were reinforced by the National Policy on Higher Education and Technical and Vocational Education, approved in 2009.

These intended reforms were to be spearheaded by the government. The major challenges were whether the administrative and organizational systems of the government could embark on and sustain the reform process and whether the private sector could enter into its new role as training provider to take up a significant share of the training requirements.

Framework of Technical and Vocational Education and Training Reform

The NVQF enables trainees to select the level of qualification they intend to attain, and employers to know the competencies and level of attainment of their prospective employees

Case for establishment of the National Vocational Qualifications Framework

State sector technical and vocational education and training (TVET) courses evolved through different models practiced by institutions. Technical colleges offered craft-level training following a more academic approach, teaching mathematics, sciences, engineering drawing, and languages in addition to the skills and underpinning technical knowledge. Vocational Training Authority (VTA) centers took a direct approach and provided skills and underpinning knowledge needed to engage in a chosen occupation. Apprenticeship training expected the trainee to acquire skills through on-the-job training, while the underpinning knowledge was provided through short or correspondence courses.

These training programs often lacked clear focus on the competencies to be acquired by the trainee and also could not keep up with technological changes in industry. The courses were of different durations among institutions for the same occupational area, and there were marked differences in the competencies of trainees from different institutions. The system was complicated by the issue of qualifications by private sector training centers, according to their own curricula, which often carried a qualification tag “diploma” even for a course of a few weeks’ duration.

Qualifications offered by both public and private institutions at the certificate level were very rarely recognized for admission to further education or training, and, therefore, those embarking on TVET saw a dead end and were unable to reach their career aspirations. This became a critical hindrance to attracting secondary school leavers to TVET, and hence the pressure to gain university admission increased to unrealistic levels.

To get over this fragmented system of TVET and to systematically develop the sector, the decision was taken by the line ministry to establish a National Vocational Qualifications Framework (NVQF) to provide a framework for quality assurance with distinctly identified levels of competencies and learning demand for qualifications. The NVQF enables trainees to select the level of qualification they intend to attain, and employers to know the competencies and level of attainment of their prospective employees. The NVQF ensures the quality of the processes of acquisition and assessment of competencies.

Reorganization of Administration of Technical and Vocational Education and Training

The Technical and Vocational Education Commission (TVEC) was established by the Tertiary and Vocational Education (TVE) Act No. 20 of 1990 with these objectives:

- planning, coordination, and development of TVE at all levels in keeping with the human resource needs of the economy;
- development of nationally recognized systems for granting TVE awards including certificates and other academic distinctions; and
- maintenance of academic and training standards in institutes, agencies, and all other establishments providing TVE.

TVEC is vested with the powers to accomplish its objectives. The TVE Act also makes provision for the minister responsible for TVET to issue general directions to TVEC in pursuance of the national policy on TVE.

The TVE Act provided the legislative framework to establish a qualification framework for the TVE sectors and to maintain academic and training standards through a quality assurance system that is complementary to any qualifications framework.

The training networks of the Department of Technical Education and Training (DTET) and the National Apprentice and Industrial Training Authority (NAITA) have been shifted to different ministries a few times since 1994, and the training network of the Ministry of Labour was established as a separate statutory board—the Vocational Training Authority (VTA)—in 1995. At the time of commencement of the reforms, the training networks—DTET, NAITA, VTA, and the Sri Lankan Institute of Advanced Technological Education (SLIATE)—were under the Ministry of Tertiary Education and Training, which also included the University Grants Commission, the national universities, and TVEC under its purview. In 2004, the Ministry of Skills Development, Vocational and Technical Education was formed, establishing a separate identity for TVET. Implementation of the large majority of reform processes took place under this ministry, which was later renamed the Ministry of Vocational and Technical Training.

TVEC led the reform process, assisted by the Asian Development Bank–sponsored Skills Development Project (1999–2005) and Technical Education Development Project (2006–2011) and by other stakeholders (the Ministry of Vocational and Technical Training, DTET, NAITA, VTA, the National Youth Services Council, and private sector training providers).

Role of the Private Sector

The private sector is expected to play a greater role in TVET reform, as it is the major employer of TVET graduates. The major inputs expected from the private sector are as follows:

- **Provide guidance in policy making and planning in TVET development and in quality assurance.** The amended TVE Act in 1999 brought about the strong participation of industry bodies and employer organizations on the board of directors of TVEC. TVEC, as mentioned previously, is responsible for overall policy making, planning, and quality assurance of the TVET sector. This arrangement has worked well, and TVEC has led the TVET reform process successfully, earning the confidence of industry, government bodies, and training providers.
- **Advise on the envisaged development of industry subsectors and consequent human resource demands to be met by the training systems.** The industry subsectors were

The private sector is expected to play a greater role in TVET reform, as it is the major employer of TVET graduates

expected to project their growth for periods ranging from 3 to 5 years, depending on the type of subsector, and to ascertain the human resources demand in different occupation categories. The studies were funded by TVEC, and the findings were compiled as vocational education and training plans. TVEC then appointed sector policy training advisory committees for each industry subsector, which consist entirely of industry personnel, to advise on labor market trends that are not captured by the vocational education and training plans and on how the training should be organized to cater to the particular subsectors. The occupations identified by these processes are communicated to NAITA for the development of competency standards.

- **Identify the competency needs in various fields for the setting up of competency standards.** Strong industry participation is obtained for setting up competency standards and assessment resources. NAITA, the body responsible for the development of competency standards, appoints national industry training advisory committees for the development of these resources. This process has enabled Sri Lanka to develop competency standards that are current in the technological context and that match the industry requirements of the country.
- **Actively engage in the provision of training in accordance with the revised system, either through their training centers or by providing on-the-job training to trainees of other organizations.** Sri Lankan industry consists mostly of small and medium-sized enterprises (SMEs) with the exception of few large concerns. While some large companies have established training centers or outfits and deliver training according to the revised system, SMEs have responded poorly to the training effort in the revised form. SMEs have continued to provide traditional apprenticeship training coordinated by NAITA and have not taken advantage of the private sector grant scheme provided by TVEC. Much work has to be done in this area to bring competency-based training and quality assurance to the apprenticeship mode of training.

Although the TVE Act has provisions to charge a training levy from the industries, this provision has not been implemented so far. It is to be decided if this levy should be charged and put back into the industry to promote training of existing staff and apprentices. In the case of assessments, industry personnel form a significant proportion of the competency-based assessors, and they actively engaged in assessments.

Development of the National Vocational Qualifications Framework

Formation of Initial Concepts

Considering the case for the establishment of the National Vocational Qualifications Framework (NVQF) as detailed at the beginning of the previous chapter, the initial concepts of the NVQF were as follows:

- a vocational qualification system that could assure quality, certify competencies, and offer unified qualifications across all training providers—both public and private;
- upward and lateral mobility within the vocational qualifications without any disadvantage to a person who had missed part of general education in the schools;
- progressive acquisition of competencies as a person obtains higher qualifications so that they would be able to perform a range of activities in the chosen field; and
- learning effort at the middle technical and degree levels to be quantified through a credit system so that the comparison of vocational qualifications with other qualification systems would be possible.

Stakeholder Consultations

The officials and the consultants of the Skills Development Project were involved in stakeholder consultations covering industries, vocational training providers, curriculum developers, officials of general education, etc. The stakeholders were in general agreement with the establishment of an NVQF, although there was no clear understanding at the time of how existing qualifications could be matched to the NVQF. The competency-based approach to training proposed as part of the NVQF had mixed responses, and some training providers such as the Department of Technical Education and Training (DTET) preferred to continue with the curriculum-based approach. There was clear support for upward mobility within the NVQF and for establishing degree-level qualifications.

Structure of the National Vocation Qualifications Framework and Identification of Organizations for System Administration and Output Delivery

The NVQF covers qualifications at the craft, middle technical, and degree levels based on industry-identified competency standards. The number of levels was decided on to provide a sufficient spread of qualifications in each category. Seven levels of qualification were identified,

The NVQF covers qualifications at the craft, middle technical, and degree levels based on industry-identified competency standards

Table 2 Levels of Qualification in the National Vocational Qualifications Framework

Level No.	Qualification	Generalized Description
1	National certificate	Level 1 recognizes the acquisition of entry-level competencies.
2 3 4	National certificate	Levels 2, 3, and 4 recognize increasing levels of competency. Level 4 qualification provides for full craftsmanship and/or workmanship.
5 6	National diploma	Levels 5 and 6 recognize the increasing levels of competency of technicians, including supervision and process management.
7	Bachelor's degree	Level 7 recognizes the vocational and/or technological competencies at the bachelor's degree level.

Source: Author.

each described by the processes to be carried out, degree of responsibility for the processes, and learning demand to achieve the competency (Table 2). Sri Lanka has adopted the level descriptors of the New Zealand National Vocational Qualifications.

The competency standard is the basis for awarding a qualification, and hence strong industry participation was expected for development. The National Apprentice and Industrial Training Authority (NAITA), which has links with industry, was chosen for competency standard development, and national industry training advisory committees (NITACs) were set up for each industry sector. The NITACs have strong participation from the relevant industry, the Ministry of Labour, the Technical and Vocational Education Commission (TVEC), and training providers. The NITACs are also responsible for the development of assessment resources. Competency standards and assessment resources developed and validated by the NITACs are forwarded to TVEC for endorsement as national documents.

The curriculum development and teacher training body of the TVET sector, the National Institute of Technical Education of Sri Lanka, which became the University of Vocational Technology (Univotec) in 2009, is the body responsible for developing curricula, teacher guides, and learner guides.

Critical Technical Issues, Challenges, and Solutions to Tackle Them during National Vocational Qualifications Framework Development

The seven-level qualifications framework was to be implemented in two stages, with levels 1–4 covered in the first stage. Setting of competency standards, development of course curricula and teaching and learning materials, and implementation of competency-based training in identified training centers were the targets. Qualifications in levels 1–4 were to be occupation based, e.g., electrician or machinist. It was noted after deciding qualifications that there were very few qualifications at level 1. This made level 1 practically unnecessary. As a result, a qualification called "basic competencies to work" was developed covering workplace safety, use of hand tools, labor regulations, workplace communications, etc., at level 1, and this qualification is offered with any other higher level qualification.

The second phase of NVQF development was focused on levels 5–7, and the entry qualifications to these levels were to be decided. Should the minimum entry qualification to level 5 be level 4, or could it be level 3? It was decided that the minimum qualification would be level 3, as it would

provide sufficient competency in a chosen occupation and appreciation of vocational education for a person to enter a middle level technical course. Further, one cannot expect a person to be a master craftperson before enrolling in a diploma program.

Similarly, the minimum entry qualification to level 7, the degree program, was decided to be level 5 qualification. It was argued that, although level 4 ensures a high level of competency in skill-based occupations, necessary cognitive abilities and supportive competencies to engage in a serious degree-level program would be reached only after level 5 qualification.

The National Vocational Qualifications Framework of Sri Lanka

The NVQs of Sri Lanka are based on national competency standards identified by industry stakeholders

Details of the Framework

The National Vocational Qualifications Framework (NVQF) provides for quality-assured and nationally consistent technical and vocational education and training (TVET) in Sri Lanka relevant to economic and social development and is of an international standard. The national vocational qualifications (NVQs) of Sri Lanka are based on national competency standards identified by industry stakeholders. The competency standards include relevant technical and employability competencies.

A broad framework has been developed integrating technical and/or vocational and higher education, and further levels may be added. The framework allows for an interface with secondary education and provides a progression for TVET-qualified personnel to proceed to higher education. The units of the competency standards are individually assigned to a level, and vocational qualifications are also assigned levels.

The factors to be considered in the assignment of levels for the units of competency standards are as follows:

- process that a qualification holder will carry out,
- learning demand, and
- responsibility.

National Vocational Qualification Levels 1–4

Qualifications at levels 1–4 allow for a trainee to upgrade competencies starting from the unskilled stage to reach the full or master craftsperson stage through the acquisition of competencies specified at each level. These competencies are incorporated into the units of competency that are packaged appropriately to form the national competency standards of a particular occupation. Trainees maintain a record of achievement of the units of competency successfully completed, and once all the units comprising a particular level have been successfully completed, they are eligible to receive the national certificate in the relevant occupation at the applicable level. Thus, trainees are able to upgrade their qualification level in a particular occupation through gradual acquisition of competencies as per the national competency standards.

National Vocational Qualification Levels 5 and 6

Persons with NVQ level 5 or 6 qualifications have supervisory and/or process management competencies. These involve an increased percentage of knowledge component compared with competencies at lower levels. It is therefore necessary to ensure that those entering NVQ level 5 programs already have the necessary hands-on skills to embark on a level 5 program.

The entry qualification to the level 5 diploma program is therefore fixed at NVQ level 3 or level 4 in a relevant occupation.

Candidates selected for entry to an NVQ level 5 program may possess different skill and knowledge backgrounds. Even those coming through the NVQ system itself will have qualifications from different but relevant occupations. To ensure that all those selected to undergo a level 5 program have the minimum skills and knowledge needed at entry, they initially go through a bridging program. This is carried out for the candidates after a selection test and an academic counseling session. If there is a skill gap in a particular student identified in the academic counseling session, the student is directed to necessary "gap-filling" programs. The "foundation studies" program is intended to provide the necessary mathematics, science, and English knowledge and the computer literacy needed to embark on a level 5 program.

National Vocational Qualification Level 7

NVQ level 7 programs conducted by the University of Vocational Technology (Univotec) allow students to acquire the bachelor of technology or bachelor of education in technology degree qualifications. Pathways from the national diplomas are available to students who have achieved the relevant NVQ qualifications at levels 5 or 6 to proceed to degree programs. Those with NVQ level 6 qualifications are eligible to receive appropriate credit transfer toward the degree program, to be determined by Univotec.

Figure 1 illustrates the levels and qualification upgrading pathways.

Sri Lanka's NVQs were developed to assist trainees to join and leave the system at different stages with qualifications at different levels. Vertical mobility upward through the system is straightforward to facilitate seamless progression. A qualification within the range of NVQ levels 1–4 can be acquired directly or progressively through an accredited course(s) or through recognized prior learning. The minimum qualification to enroll in a level 5 diploma course was set at NVQ level 3 plus cognitive ability equivalent to General Certificate of Education (GCE) Ordinary Level, and the entry qualification to level 7, a degree program, was set at NVQ level 5.

Sri Lanka's NVQs were developed to assist trainees to join and leave the system at different stages with qualifications at different levels

The occupations available at NVQ levels 1–4 and the fields of study at levels 5–7 are clustered to provide the upgrading pathways to make learning at lower levels relevant to learning at higher levels (Figure 2).

This clustering is straightforward and practical to implement in some sectors such as construction, manufacturing, and automobile technology. However, providing diploma qualifications and particularly degree-level qualifications as directly relevant upgrading pathways for some certificate-level qualifications may not be possible, as such qualifications do not exist. Further, at the early stages of institutional development, providing upgrading pathways for a large number of sectors is a costly task. The costs of equipment and infrastructure for NVQ level 5–7 courses in the industry sector are high, and the Technical Education Development Project had to curtail some of the courses originally planned to stay within the spending limits.

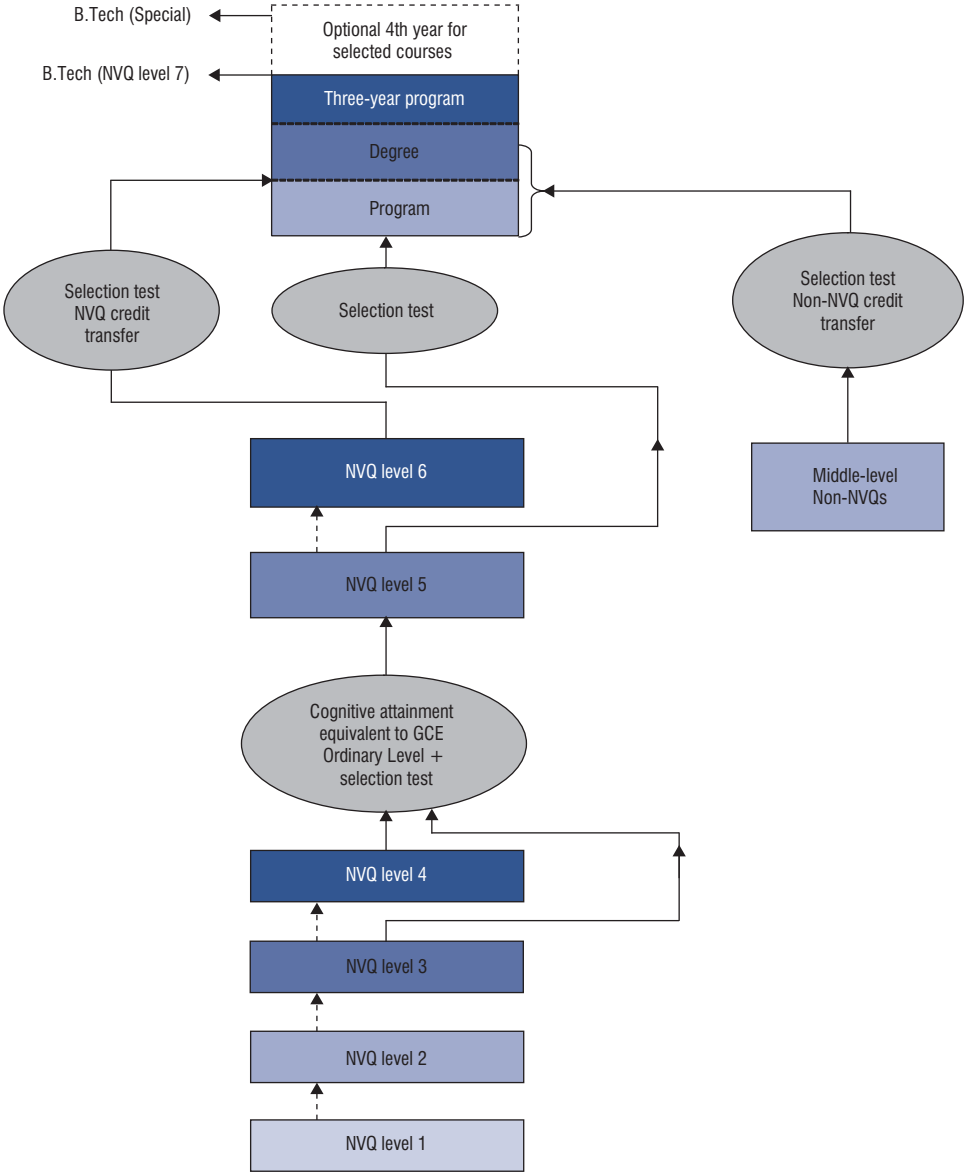
Quality Assurance

Quality underpins all components of Sri Lanka's NVQs. A quality assurance model based on institutional self-assessment and continuous development has already been adopted. Quality assurance requires that all training agencies take responsibility for excellent performance and demonstrate to stakeholders that quality assurance systems (QASs) are to the standard required by the Technical and Vocational Education Commission (TVEC).

TVEC is responsible for facilitating and regulating quality assurance and has four clusters of activities to support the NVQs:

- registration of training providers,
- the QASs,
- course accreditation, and
- monitoring and auditing.

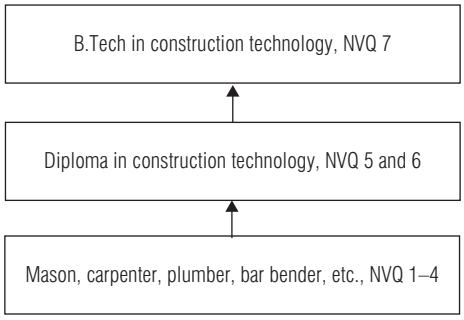
Figure 1 Qualification Upgrading Pathways



B.Tech = bachelor of technology or bachelor of education technology, GCE = General Certificate of Education, NVQ = national vocational qualification.

Source: Author.

Figure 2 Qualification Upgrading in the Construction Subsector



B.Tech = bachelor of technology or bachelor of education technology, NVQ = national vocational qualification.

Source: Author.

Quality assurance is a prerequisite for regular registration of training providers. Registration of training providers may lead to accreditation of courses and programs. Accreditation ensures that training providers adhere to active internal QASs with particular reference to the course for which accreditation is being sought.

Components of National Competency Standards

National competency standards define the competencies required for effective performance in a particular industry sector or in an occupation. The important features of competency standards and their applications are that they

- focus on what is expected from a worker in the workplace rather than on the learning process;
- stress the ability to transfer and apply skills, knowledge, and attitudes to new situations and environments; and
- are concerned with what people are able to do and the ability to carry out a task within a given context.

The combination of units for an industry sector and/or occupation must cover the following five components of competency:

- task handling,
- task management,
- problem solving and/or contingency management,
- job and/or role and/or work environment handling, and
- application of competencies to different environments.

Categorization of Competency Units

For Level 1–4 Competency Standards

Occupation-specific competency units. Under this category a set of compulsory competency units is offered. These are specific to the occupation of the certificate and are the key competencies in that occupation that the qualification holder must possess.

Basic employability competency units. These are generic competency units that are required of all employees to function effectively in the workplace.

National competency standards define the competencies required for effective performance in a particular industry sector or in an occupation

For Level 5 and 6 Competency Standards

Sector-specific core competency units. Under this category a set of compulsory competency units is offered. These are specific to the main area of the qualification and are the key competencies in that sector that the qualification holder must possess.

Employability competency units. These are generic competency units that are required of all employees to function effectively in the workplace, including those generally referred to as soft skills, e.g., problem solving and decision making.

Elective competency units. These units focus on specific areas of the sector or on related areas from other sectors. The option is given to select elective units to specialize in a particular area.

Similar to the ECTS, the Sri Lankan credit system is based on the principle that 60 credits define the workload of an average full-time student during one academic year

Formation of Qualifications

Qualification Packaging at the Certificate Level

For level 1–4 qualifications, units are clustered into a package to form an occupation according to the industry requirements as well as to include sufficient learning content. The NVQ level assigned to the qualification is determined by considering the following:

> *The levels of units practiced most frequently in a package will decide the level of the qualification.*

Credit Criteria at the Diploma and Degree Levels

The units of competency considered for NVQ levels 5 and 6 are assigned a credit value in addition to a level. The degree at level 7 is based on the curricula prepared in terms of learning outcomes.

The credit system used in the Sri Lankan NVQ system for NVQ levels 5–7 is the European Credit Transfer and Accumulation System (ECTS). The number of notional hours per credit ranges from 20 to 30 in the ECTS. In Sri Lanka, 25 notional hours are considered to constitute one credit. This is a student-centered system based on the student workload required to achieve the objectives of a higher education program, preferably specified in terms of learning outcomes and the competencies to be acquired. Similar to the ECTS, the Sri Lankan credit system is based on the principle that 60 credits define the workload of an average full-time student during one academic year.

National Vocational Qualification Level 5 Diploma

The minimum number of credits required for the NVQ level 5 diploma is 60, of which at least 40 credits must be at level 5 or above, and the remaining (up to 20) credits at level 3 or above.

National Vocational Qualification Level 6 Diploma

The minimum number of credits required for the NVQ level 6 diploma is 120, of which

- at least 40 credits must be at level 6 or above,
- at least 50 additional credits are at level 5 or above, and
- the remaining 30 (or fewer) credits may be from level 3 or above.

A maximum of 60 credits earned toward a level 5 qualification in the relevant technology area can be counted toward the credit requirement of a level 6 qualification.

National Vocational Qualification Level 7 (Degree Level)

The degree from Univotec is designed to meet international norms for first degrees and is consequently a systematic, research-based, coherent introduction to the knowledge, ideas, principles, concepts, chief research methods, and analytical and problem-solving techniques of a recognized major technology subject or subjects.

The entry qualification to the degree program is the NVQ level 5 qualification. The bachelor's degree program is 180 credits, and an NVQ level 6 diploma holder may be granted exemption for a maximum of 60 credits, depending on the relevance of the credits earned to the degree program.

Assessment of Competency

The national policy on assessment of competency uses two methods: For the award of level 1–4 qualifications, the competencies are assessed through competency-based assessments focusing on the performance criteria specified in the respective units of competency.

For level 5 and 6 qualifications, two stages of assessment are employed: Modular-based (formative and summative) assessments are conducted for the assessment of learning outcomes as specified in the curricula. Whether the trainee is competent or not yet competent is decided through a competency-based assessment with respect to all units of competency that constitute the qualification, conducted by registered and/or licensed assessors. Records of the continuous assessments and the summative assessment conducted form part of the evidence used in deciding the competency of a trainee. An assessment panel nominated by the training provider conducts a mandatory oral competency-based assessment. The assessment panel consists of three members, with at least one representing the industry that deals with the particular area of technology. The final outcome of the assessment is determined by the assessment panel.

National Vocational Qualifications Framework Administration and Implementing Agencies

The institution responsible for NVQF administration is TVEC, assisted by the National Apprentice and Industrial Training Authority (NAITA) for competency standard development and assessment resource development; and by Univotec for curriculum, learning resource development, and assessor training. TVEC has established an NVQ steering committee on which the senior officials of the line ministry and training networks are represented. All operational and monitoring matters connected with the administration of the NVQF are discussed, and decisions are reached by the Steering Committee. Policy-level matters are referred to the TVEC governing board. The NVQ Steering Committee conducts approximately 10 meetings per year, and the decisions taken are circulated to all training providers. Policy-level decisions taken by the TVEC governing board are issued as NVQ circulars and become integral parts of the NVQF. It is understood that the NVQF is a dynamic system that requires regular review, adjustments, and innovation. The quality assurance mechanisms, registration, accreditation, and QAS audits are regularly reviewed and have been built into the QAS of TVEC, which holds International Organization Standardization (ISO) 9001:2008 certification.

The institution responsible for NVQF administration is TVEC, assisted by NAITA for competency standard development and assessment resource development; and by Univotec for curriculum, learning resource development, and assessor training

The competency standards and curricula developed are reviewed in a 3-year cycle, except for standards and curricula in the computing and information technology fields, which have a 2-year cycle. Feedback is received from training delivery institutions with regard to implementation issues and is compiled for consideration at the next review. Technological advances, changes in the industry, matters connected with the clustering of competency units, etc., are considered in periodic reviews of standards and curricula.

Progress and Challenges in Implementation and Monitoring

Development of Competency Standards and Course Curricula Covering the Labor Market

Competency standards developed at national vocational qualification (NVQ) levels 1–4 currently cover 96 occupations, and those at NVQ levels 5 and 6 cover 14 fields. The Technical and Vocational Training Commission (TVEC), through its labor market analysis unit, identifies the occupations and/or fields for competency standard development and instructs the National Apprentice and Industrial Training Authority (NAITA) to do the development work. The respective national industry training advisory committee (NITAC) identifies a development group for initial development of the competency standard, and the draft prepared by the group is forwarded to the NITAC for detailed consideration and validation.

Competency standards developed at NVQ levels 1–4 currently cover 96 occupations, and those at NVQ levels 5 and 6 cover 14 fields

Procedures for the development of competency standards and course curricula were not clearly understood in the early stages, and competency-based training curricula were developed before the respective competency standards. Therefore, units of competency did not match one to one with the modules in the course curricula. This was rectified by producing a matching sheet to pair up competency standards and curricula.

Similar difficulties arose when developing curricula for levels 5 and 6 diploma courses using local expertise, before the Technical Education Development Project consultants arrived, in order for two other aid agencies to commence their courses on schedule. The learning content was not properly quantified in this case. When the learning content for levels 5 and 6 was defined, these curricula were modified.

The competency standards and course curricula developed with the assistance of the project consultants, when scrutinized for conformity with the level descriptors, showed mismatches. A consultant conversant with the level descriptors made the necessary adjustments in consultation with the developers.

In developing the draft national competency standards, it was sometimes seen that the development groups assigned higher levels to competency units than the levels in conformity with the level descriptors. This may have been due to pride and the importance they assigned to their own occupations. The competency standard prepared for the occupation of draughtsman was objected to by the Institute of Architects, as it contained some competencies identified in the profession of architecture. The standard was subsequently revised.

The draft national competency standards prepared were largely acceptable and needed only minor adjustments in many cases. However, in some instances major adjustments were needed

at the NITAC level, taking long hours for deliberations. These shortcomings should be minimized when the facilitators of development groups gain more experience and become thoroughly familiar with the National Vocational Qualifications Framework (NVQF). Steps were also taken to train more facilitators to ease the workload and allow more time for each competency standard. Inadequate capabilities of the administrative staff in the competency standard development unit to accurately record the proceedings of the NITACs, which are of technical nature, and to produce the final document were also a matter of concern. This resulted in many delays in producing the final competency standards and translating them into the Sinhala and Tamil languages.

Issues Relating to Qualification Packaging at the Certificate Levels

The NVQ Operations Manual provides guidelines on the determination of the level of competency units and the packaging of units to form a qualification. However, in developing competency standards and packaging them in the early stages of NVQ development, units had been clustered into a package to form an occupation without due consideration of foundation competencies in the relevant occupation and the learning content needed to achieve the qualification. For example, the competency standard for welder had 26 competency units and 18 qualification packages (2 qualifications at level 2, 8 at level 3, and 8 at level 4). Qualification packages at level 4 had mostly 3 or 4 units, and it was possible to have a level 4 qualification without acquiring competencies in gas and arc welding, which are foundation competencies for a welder. The NVQ Steering Committee considered this issue and appointed a packaging committee comprised of system experts on the NVQF to review the draft competency standards and make recommendations to the NITAC as to how the competency units could be clustered to form a qualification.

Several externally funded projects that came into operation after the 2004 tsunami supported DTET and VTA training centers in the coastal belt to establish or reinforce NVQ operations

Establishment of Courses Leading to National Vocational Qualification and Course Accreditation

The Skills Development Project (SDP) developed 45 competency standards and related course curricula and teaching/learning materials. The SDP supported implementation of these courses in identified centers of major public training networks: the Department of Technical Education and Training (DTET), NAITA, the Vocational Training Authority (VTA), and the National Youth Services Council. Staff training to deliver courses in a competency-based mode, providing training equipment and materials, supply of necessary documentation, training and facilitating course accreditation, and student assessments were part of SDP support. It was noted that more training equipment and materials were needed to operate NVQ courses, and hence the training centers not supported by the SDP were at a disadvantage. Training networks were expected to seek government and other funding to equip these centers over a period of a few years. Several externally funded projects that came into operation after the 2004 tsunami supported DTET and VTA training centers in the coastal belt to establish or reinforce NVQ operations. Similar support was provided by some nongovernment organizations (NGOs) to training centers in less-developed or conflict-affected areas.

The vocational courses were expected to be brought under the course accreditation of TVEC as part of quality assurance; however, in the initial stages, a grace period was granted for the courses to operate without accreditation while the accreditation work was progressing simultaneously. This provided sufficient time for training institutions to equip their centers and also eased the pressure for course accreditation. Quality assurance during this period depended mainly on the rigor of competency assessment.

The private sector was encouraged to convert its courses to NVQs, and TVEC, through its mandate, operated a grant scheme with government funding for the acquisition of necessary training equipment to achieve accreditation status for existing courses.

TVEC took steps to accredit the NVQ courses and provided support in the form of staff training to achieve the objective. As of July 2010, TVEC had accredited 393 courses in the public sector and 221 courses in the private sector. Institutional courses may facilitate the acquisition of all competencies in-house up to level 3, but a minimum of 6 months on-the-job and/or in-plant training is needed for level 4.

Award of National Vocational Qualification Certification to Existing Courses

DTET, which had been operating its network of technical colleges and a few other training institutes in specialized fields such as automobile technology, claimed that its courses were over and above the competency requirements of NVQ courses. This was to be expected in establishing a new qualification system, as there would be existing courses below and above the new standards. Courses in the technical colleges offered mathematics, science, engineering drawing, etc., together with training in core competency areas.

These courses were compared with NVQ courses to ascertain whether they satisfied the established competency standards, and many of the courses satisfied the NVQ criteria with or even without amendments. The courses were then requested to make necessary adjustments and to satisfy the TVEC accreditation criteria through necessary documentation, record keeping, continuous assessment, etc., and the trainees were asked to appear for competency-based assessment for the award of NVQs in addition to the examinations/assessments by the respective institutes to award their own qualifications. However, it was decided that a trainee who was found not yet competent in the NVQ assessment should not be awarded any other qualification by the institute.

Competency Assessment and Assessment Administration

Competency assessments are done by trained and registered assessors who are either from the industry or instructional staff in the training institutions. The assessor registry is maintained by TVEC, and the number of registered assessors as of July 2010 was 927. Each prospective assessor has to satisfy the eligibility criteria and undergo a 5-day training program on assessment techniques that includes simulated assessments. An assessor who is a member of the instructional staff is not eligible to assess their own trainees. Assessments are done by an assessor and a verifier in combination. The verifier, also a registered assessor, verifies the assessment through documentation up to NVQ level 3 and is physically present at level 4 assessments. The assessment resources validated by the NITACs become the basis for assessments. Assessments for levels 5 and 6 are done by a panel of three persons.

Assessment administration in the training networks is done by the assessment units of institution head offices, and the assessment results are forwarded to TVEC for the issue of NVQ certificates. Assignment of assessors and verifiers for the private sector is done by TVEC, and the results are directly received with necessary documentation.

The payment scheme for competency assessors was originally based on the number of competency units assessed. It was noted that some assessors had assessed larger numbers

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of units per day, which may have compromised the comprehensiveness and the rigor of assessment. As a result, the payment scheme was changed to make the payment for a working day, and a norm was provided to guide the maximum number of competency units to be assessed for each occupation. The number of competency units that can be assessed per day varies with the type of occupation.

As the system grows, NVQ assessment administration needs to be redesigned to maintain its credibility and efficiency, and assessment units of institutions must be brought under a quality assurance system.

National Vocational Qualification Certification through Accredited Courses and Recognition of Prior Learning

As the system grows, NVQ assessment administration needs to be redesigned to maintain its credibility and efficiency, and assessment units of institutions must be brought under a quality assurance system

The NVQ system certifies the competencies acquired by a person, and hence the certification is offered to those who acquired competencies either through training courses or through industry practice in employment. Acquisition of competencies through industry practice is recognized as prior learning, and the NVQ assessment is given if the person has satisfied the necessary industry experience. The award of full qualification through recognized prior learning (RPL) is limited to NVQ level 4.

NVQ certifications issued through accredited courses and through RPL are the same, with identical certificates. Accredited courses are expected to issue a separate certificate of participation or any other certificate as proof of attending an accredited course. NAITA and VTA are the two institutions authorized to conduct assessment through RPL, considering the provision built into their legislation to test and certify industry personnel.

All NVQ certificates issued originate from TVEC, carry the scanned signature of the director general of TVEC, and display the logo of the Government of Sri Lanka. Certificates are signed by the head of the assessment unit and the head of the respective institution.

Proof of Experience for Assessment through Recognized Prior Learning

The way by which competencies were acquired is not relevant for the purpose of issuing a competency certificate. This is the argument to offer qualifications through RPL. Furthermore, one person may acquire competencies faster than another. Strictly adhering to this notion, a minimum period of experience was not specified for NVQ assessment through RPL in the initial stages. However, this led to two types of problems: First, some candidates, though they had very little experience, wanted to try the assessment without necessary preparation; and second, suspicion arose that some candidates might exert undue influence on the assessors to gain an NVQ certificate. In the early stages, the large majority of NVQ certificates issued through RPL were at level 4. Under normal circumstances, it would be expected to have a larger number of lower-level certificates than higher-level certificates.

This resulted in imposing experience requirements of 1–5 years for NVQ levels 2 and 3 and a further 2 years for NVQ level 4. This is to ensure gradual acquisition of competencies. However, questions were asked as to whether craftspersons with many years of experience could be considered for assessment for level 4 directly, without progressing through levels 2 and 3. It was therefore decided to allow level 4 assessment directly for those with a minimum of 5 years of experience in verifiable employment.

User Benefits and Demand for National Vocational Qualifications

Training institutions that had not earned a name at the national level, as well as young training networks, saw an immediate benefit in following the NVQ system, because they could award a national certificate to their trainees and thereby enhance the reputation and image of their institutes. VTA, the youngest network, established in 1995, responded rapidly to the reforms, converting its courses to the NVQ system and offering the national certificate island-wide, mostly at NVQ levels 2 and 3. This early intervention, while facilitating the NVQ holders seeking employment within and outside Sri Lanka, helped the rapid spread of NVQ courses, creating an awareness of NVQs and TVET as a whole among the public.

The offer of NVQ certification through RPL was purely demand driven, and many who were seeking foreign employment or immigration to other countries sought the qualification. It is noted that the large majority of certificates issued through RPL have been in the occupations of beautician, hairdresser, and baker, which would facilitate employment in developed countries.

Time Frame of Implementation

Sri Lanka took almost 10 years for formation of the initial concepts, development of the NVQF, and full implementation covering all levels of education and training as well as certification. The key milestones from 1997 to 2010 were as follows:

1997	Report of Presidential Task Force
1999	ADB-funded Skills Development Project begins
From October 2002	Stakeholder consultations
2003/2005	Development of the NVQF, competency standards, and curricula for 45 occupations at NVQ levels 1–4
August 2004	Official launch of the NVQF by executive order of the Minister responsible for TVET
February 2007	First NVQ certificate awarding ceremony
2007/2008	Other externally funded projects supported NVQ implementation
2007/2009	Development of NVQ levels 5 and 6 standards and curricula
2007	Establishment of colleges of technology to offer NVQ levels 5 and 6 courses
October 2008	Establishment of Univotec
2008	Formation of the Accredited Training Providers (Private Sector) Association
January 2009	Incorporation of NVQs into government recruitment schemes
March 2010	First NVQ levels 5 and 6 diploma award ceremony
June 2010	National policy document recognized the NVQF as the basis of TVET

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Lessons from the Experience of Promoting National Vocational Qualifications

There was no single solution to overcome the resistance, but rather a multitude of actions

Promoting the System of Competency-Based Training—Overcoming Initial Resistance to Change

Transfer of training from a curriculum-based to a competency-based system was a challenging process. The National Apprentice and Industrial Training Authority (NAITA) had attempted competency-based training (CBT) as a pilot program in apprenticeship-based training prior to the commencement of reform, but CBT was new to other training networks and institutes. Training coordinated by the Skills Development Project locally and in foreign countries for instructional staff provided the necessary expertise and the persuasion to make this change. However, issues were raised by staff unions and by individuals as to why the training was being transferred to the CBT mode. What was wrong with the curriculum-based system, since it had served Sri Lanka's training purposes for such a long period? Could the students be trained according to the curriculum-based system and sit for the national vocational qualification (NVQ) assessment? Some staff unions said that they did not possess sufficient understanding, despite the training provided to them, to deliver in the CBT mode.

It was noted that the older the training network, the more it was resistant to change. There was no single solution to overcome the resistance, but rather a multitude of actions. Meetings with staff unions did not produce expected results. However, meeting staff members at training centers, explaining to them, persuading them, showing success stories of other training centers in both the public and private sectors as a bottom–up approach, giving targets to achieve course accreditation, and issuing circulars that expected compliance as a top–down approach were actions used at appropriate times. Determination at the political level was very important, and staff were made to understand that CBT and the NVQ system were to be implemented as government policy.

Promoting the National Vocational Qualifications Framework among Private Sector Training Providers

Promotion of the National Vocational Qualifications Framework (NVQF) among private sector institutes to accept the system on a voluntary basis had to be done, as there was no provision in the Tertiary and Vocational Education Act or any other legislation to impose a training system on private training providers. The Technical and Vocational Education Commission (TVEC) organized a series of awareness meetings in different parts of the country for private sector and nongovernment sector training providers who were registered with it. Subsequently, a project was launched by TVEC with government funding in 2006 and 2007 to assist private sector

training providers in procuring the necessary training equipment to get their courses accredited according to the NVQF. TVEC provided 70% of the cost of equipment, and 30% was borne by the training providers. An international nongovernmental organization (NGO) also came to the assistance of TVEC during this period. Private sector training providers in less-developed and conflict-affected areas of the country, financially assisted by the international NGO, were asked to follow the NVQ system, and the international NGO tied its assistance to the progress of NVQ implementation.

The private sector gradually started implementing the NVQ system, and when the number had grown to approximately 40 institutes, TVEC took the initiative to help form the Accredited Training Providers (Private Sector) Association. This voluntary body was financially assisted by TVEC and the Technical Education Development Project to consolidate and propagate the NVQ system among private sector training providers. The major breakthrough to promote NVQs among private sector training providers came when the Attorney General approved the printing of the logo of the Government of Sri Lanka on the NVQ certificates issued to trainees who followed accredited courses in the private sector.

Promoting the National Vocational Qualifications System to Government Organizations, Industry, and the General Public

NVQs had to be promoted among government organizations and industry to be accepted as the new system of qualifications and for them to seek NVQ-qualified personnel when recruiting and granting promotions. Similarly, school children, teachers, parents, and the general public had to learn about the system to seek NVQs. Promotional programs were conducted to carry the message to these groups. NVQ promotional programs targeted at chambers of commerce and industry, professional organizations, large government establishments, etc., answered many of their questions. Large industries were visited, and the NVQ system was explained and assistance was offered to upgrade the skills of the existing workforce, leading to NVQ certification.

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NVQ awareness programs were held for school teachers in several districts, inviting two or three teachers from each school. These were large gatherings with over 500 teachers at a time. Trained career guidance officers visited schools and spoke to teachers and pupils in General Certificate of Education Ordinary Level and Advanced Level classes. The NVQ awareness program was included as part of the school principals' training program in the National Institute of Education. The Ministry of Education cooperated with the Ministry of Vocational and Technical Training in these promotional activities.

NVQ promotion among the general public was through advertisements in print and electronic media, articles published in newspapers, discussions on radio and television, and vocational training exhibitions held in several parts of the country.

Incorporating Qualifications in the Government Recruitment Scheme and Salary Structure

TVEC negotiated with the Ministry of Public Administration, the Department of Management Services of the Ministry of Finance, and the Salaries and Cadre Commission to include NVQs in the government recruitment scheme. When these discussions were held in 2006, the Salaries and Cadre Commission was undertaking a major restructuring of public sector salaries. The categories of employees at the craft level at the time were unskilled, semiskilled, and skilled, but these terms were not clearly defined. It was proposed to assign NVQ levels to craft and middle

technical categories and accordingly fix the salaries. Clearly defined levels of the NVQF and the avenues for upgrading of qualifications provided the required rationale to include NVQs in the government recruitment scheme, with the three agencies agreeing to the proposal. The Ministry of Public Administration issued a circular in 2007 approving NVQs as accepted qualifications for government recruitment and assigned salaries for levels 1 to 6. Level 7 is to draw the salary assigned to a university graduate at the start. Subsequently, the new Service Minute of the Government Information Technology Service, issued in December 2009 by the Ministry of Public Administration, is entirely based on NVQs.

These decisions by the government provided the necessary state recognition to the NVQ system. This has resulted in many who already possess non-NVQ qualifications requesting determination of the NVQ equivalence level of their qualification. TVEC is currently analyzing methodologies to determine the equivalence of courses formulated using different methods.

Comparing National Vocational Qualifications Framework–Sri Lanka with National Vocational Qualifications Frameworks of Other Countries

The development and implementation of the NVQ system in Sri Lanka has progressed to a sustainable level, although there are several areas for further innovation, improvement, and consolidation

The NVQF–Sri Lanka has not been formally mapped against the NVQFs of other countries. However, it is based on the qualification descriptors of the New Zealand qualifications framework. The competency standards have been developed by Sri Lankan industry, and the whole framework has been evolved to suit the Sri Lankan education system, industry practices, and administrative systems.

Since the key concepts of NVQ systems have been followed in the Sri Lankan system, other countries are able to identify and map Sri Lankan qualifications within their own qualifications frameworks. Several foreign qualification authorities regularly seek clarifications from TVEC with regard to Sri Lankan NVQ certificates or NVQ equivalence of non-NVQ certificates forwarded to them for purposes of further education, employment, immigration, etc.

Transferring Sri Lankan Experience to Countries in South Asia

The development and implementation of the NVQ system in Sri Lanka has progressed to a sustainable level, although there are several areas for further innovation, improvement, and consolidation. The sustainability of a qualifications system will be achieved based on several factors such as the comprehensiveness of the system; scale of implementation, reaching a large proportion of trainees; committing adequate funding for system development and training implementation; integration with other established administrative and education systems; demand from trainees, employees, and employers; and voluntary acceptance of the system by a significant number of private training providers. Countries in South Asia such as Bangladesh, Bhutan, the Maldives, and Pakistan have viewed the developments in Sri Lanka and noted the benefits of an NVQF. Sri Lanka is assisting these countries on a government-to-government basis in training their officials involved in the development of NVQFs and in sharing its experience with system and process development. Sri Lankan system documents on NVQs and samples of competency standards, course curricula, and teaching and learning materials are being shared with the four countries to provide examples when they develop their own systems and documents.

These collaborations may lead to mutual recognition of qualifications in the region, which may promote skilled labor migration. Although labor migration within the South Asia region is small at present, it is expected that higher levels of migration will come with the economic growth of the region.

Conclusion

The national vocational qualification (NVQ) system has made the expected impact in improving the relevance and quality of technical and vocational education and training (TVET). The majority of training institutions in the public and private sectors offer qualifications according to the NVQ unified system, and hence the complexity and ambiguity of selecting a competent person by the industry have been greatly reduced. Prospective trainees can select training courses from the standard courses offered in the NVQ system and receive quality training programs through accredited courses. Trainees see the qualification upgrading pathways and the facilities provided, which have raised the image of the TVET sector in Sri Lanka. NVQ levels 5 and 6 diploma courses are expected to produce the middle-level technical personnel in the requisite numbers to cater to the demands of industry. The system has facilitated the skill upgrading of craftspersons and the award of qualifications through recognized prior learning. NVQs, as a qualification system understood by other countries, have helped many to seek foreign employment.

The commitment of the government to develop and expand TVET through the NVQ system, integration of NVQs with the government recruitment system and with the salary structure, and the demand for NVQ-qualified personnel from industry have provided the necessary signals to both public and private training providers to make a strong commitment to the NVQ system of training. The NVQ system in Sri Lanka has reached a sustainable level, and it is expected that the system will produce the necessary skilled workforce for rapid economic and social development of the country.

Recommendations

The efforts in Sri Lanka are receiving increasing attention in and beyond neighboring countries. Other Asian nations are keen to learn from the Sri Lankan experience. Thus, several recommendations in this report highlight general issues for consideration.

The endeavor in Sri Lanka, while clearly successful, does require further consolidation

The endeavor in Sri Lanka, while clearly successful, does require further consolidation. Therefore, the report also provides recommendations specifically for the Sri Lankan context.

General Recommendations

- Achievement levels in both general and university education are governed by universally accepted norms, whereas in technical and vocational education and training (TVET) there are no accepted norms unless a qualification framework is established. Therefore, a qualification framework is more meaningful in TVET than in any other sector of education. Countries may consider the establishment of a national vocational qualifications framework (NVQF) as a system that will allow the alignment of vocational qualifications to their economic and social needs while assuring quality of training. Considering the ad hoc development of vocational courses in many countries in the past and the offer of a multitude of qualifications, an NVQF will help to systematize the training and offer unified qualifications.
- The experience of countries that have successfully developed and implemented an NVQF is important in developing similar systems in other countries. However, NVQF operational systems, competency standards, and documentation need to be developed to suit a particular country, considering its education and social systems, labor market demand, career progression of trainees, etc.
- Political commitment, well-functioning administrative systems, and a core team of dedicated professionals are essential for successful development and implementation of an NVQF and TVET reforms of such magnitude. While external consultants may provide necessary system inputs, a team of local professionals must lead the development and implementation.
- The development and implementation of an NVQF should be pursued until it becomes sustainable and the reforms are rooted in the implementing agencies. Public acceptance of the system will then be the driving force, and the administration should reinforce the confidence placed by the public by continuously innovating and improving the system to meet labor market and social demands.

Recommendations Specific to Sri Lanka

- Further development of the NVQF and training courses must take into account emerging labor market needs as Sri Lanka transforms its economy from the low-income to the

middle-income level. The TVET sector must support sustainable economic development with particular emphasis on environmentally friendly technologies.

- A comprehensive assessment administration for NVQs must be established, with necessary quality assurance systems to cater to the growing demand for NVQ assessments. An efficient and reliable assessment system and confidence of the industry in the system are vital.
- Courses catering to NVQ levels 5 and 6 must be expanded to fields with high labor market demand, and the courses must be consolidated with adequate staff and management systems. The Department of Technical Education and Training and other well-established training providers, both public and private, should be encouraged to establish courses at these diploma levels.
- The University of Vocational Technology, which is at its initial stages of operation, should be supported to embark on a strong staff development program and to establish links with industry and higher education institutions to conduct degree-level courses with necessary practical orientation.

References

Accredited Training Providers (Private Sector) Association. 2008. Articles of Association of Accredited Training Providers (Private Sector) Association. Colombo.

Asian Development Bank (ADB). 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan: Democratic Socialist Republic of Sri Lanka: Technical Education Development Project*. Manila.

Central Bank of Sri Lanka. 2009. *Annual Report 2009*. Colombo.

Government of Sri Lanka, Ministry of Public Administration. 2009. Public Administration Circular No. 02/2009. Colombo.

———. 2009. Technology Service Minute. December. Colombo.

Government of Sri Lanka, National Education Commission. 2009. National Policy on Higher Education and Technical and Vocational Education. Colombo.

Government of Sri Lanka, Presidential Task Force Report on Technical Education and Vocational Training Reforms. 1997. Colombo.

Government of Sri Lanka, Tertiary and Vocational Education Commission (TVEC). Accreditation data 2009–2010. Colombo.

———. 2009. *Labour Market Information Bulletin.* December 2009. Colombo.

———. 2009. Memoranda of understanding between Sri Lanka and respective South Asian countries. Colombo.

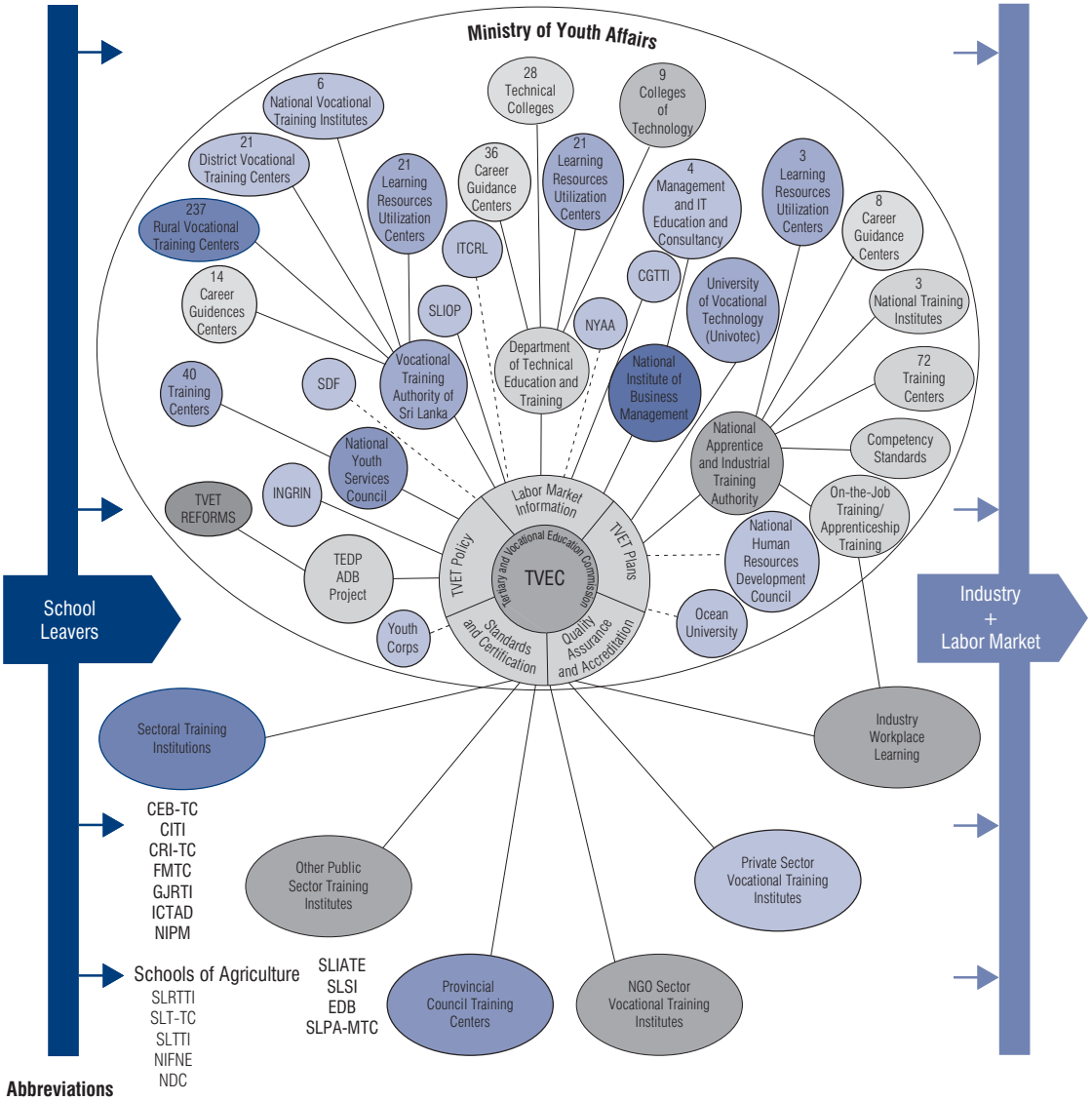
———. NVQ circulars 2004–2009. Colombo.

———. NVQ Operations Manual. November 2009. Colombo.

———. NVQ Steering Committee minutes 2004–2010. Colombo.

———. Samples of competency standards and course curricula 2004–2010. Colombo.

Technical and Vocational Education and Training System of Sri Lanka



Abbreviations

ADB – Asian Development Bank
CEB-TC – Ceylon Electricity Board - Training Center
CGTTI – Ceylon German Technical Training Institute
CITI – Clothing Industry Training Institute
CRI-TC – Coconut Research Institute - Training Center
EDB – Export Development Board
FMTC – Farm Machinery Training Center
GJRTI – Gem & Jewelry Research and Training Institute
ICTAD – Institute for Construction Training and Development
INGRIN – Ingrin Institute of Printing and Graphics Sri Lanka Limited
IT – information technology
ITCRL – International Training Center for Rural Leaders
NDC – National Design Center
NGO – nongovernment organization
NIFNE – National Institute of Fisheries and Nautical Engineering
NIPM – National Institute of Plantation Management
NYAA – National Youth Award Authority
NYSC – National Youth Services Council
SDF – Skills Development Fund
SLIATE – Sri Lanka Institute of Advanced Technical Education
SLIOP – Sri Lanka Institute of Printing
SLPA-MTC – Sri Lanka Ports Authority - Mahapola Training Center
SLRTTI – Sri Lanka Railway Technical Training Institute
SLSI – Sri Lanka Standards Institute
SLT-TC – Sri Lanka Telecom - Training Center
SLTTI – Sri Lanka Television Training Institute
TEDP – Technical Education Development Project
TVET – technical and vocational education and training

Source: Author.

The National Qualifications Framework for Skills Training Reform in Sri Lanka

The National Vocational Qualifications Framework of Sri Lanka was developed in conformity with the socioeconomic milieu and the needs of the labor market with the participation of industry stakeholders. It has enhanced the role of the government in policy and regulation, and the role of the private sector in providing skills training. A unified system with seven levels covering 96 occupations at the craft level, 14 fields at the middle technician level, and 4 courses of study at the degree level, it has reduced the complexity and ambiguity of training and selecting competent workers. This publication describes the progress and challenges in developing, implementing, and monitoring this ambitious scheme, with lessons for developing skills qualification frameworks in other countries.

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ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries substantially reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

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