

**Qualifications Frameworks: Implementation and
Impact**

**Background Case Study on Sri Lanka
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Foreword

This report was prepared as one in a series of background studies under an international research project conducted by the ILO Skills and Employability Department in partnership with the European Training Foundation on the implementation of National Qualifications Frameworks (NQFs) and their use and impact. The individual country studies and the subsequent cross-country comparative analysis strengthen the empirical foundation for eventual policy advice on whether and, if so, then how to introduce a qualifications framework as part of a strategy to achieve countries' wider skills development and employment goals.

Whether the emphasis is on increasing the relevance and flexibility of education and training programmes, easing recognition of prior learning, enhancing lifelong learning, improving the transparency of qualification systems, creating possibilities for credit accumulation and transfer, or developing quality assurance systems, governments are increasingly turning to qualifications frameworks as a policy tool for reform. Despite the growing international interest, there is very little empirical research about the actual design process, implementation and results of NQFs as an approach to reform skills development systems where it has been attempted.

This report on Sri Lanka is one of a dozen studies of countries around the world undertaken to examine the extent to which qualifications frameworks are achieving policy objectives and which types of qualifications frameworks seem most appropriate in which contexts. The case studies were conducted through two stages of field work. The first stage generated a description of the qualifications framework, the design process, its objectives and the existing system of qualifications that it was intended to reform. For the second stage, the focus was on implementation, use, and impact of the qualifications framework, including asking employers, training providers, workers, and government agencies about the extent of their use of the qualifications frameworks and the extent to which they felt it was serving their needs.

In addition, five case studies on the early starter qualifications frameworks (Australia, the English NVQs, New Zealand, Scotland, and South Africa) were written on the basis of existing research and documentation only, and published as an Employment Working Paper (Allais, Raffé, Strathdee, Wheelahan, and Young, ILO 2009).

I would like to thank Mr. G.A. K Gajaweera for carrying out the research and preparing this case study report. I would also like to acknowledge our gratitude to the practitioners and stakeholders who made time to respond to the questions and share their views. The paper reflects the views of the author and not necessarily those of the ILO.

Dr. Stephanie Allais, as Research Associate in the ILO Skills and Employability Department, supported the group of researchers in preparing the country studies and wrote the synthesis report (*The implementation and impact of National Qualifications Frameworks: Report of a study in 16 countries*, 2010) which also explains the methodology set out for the country studies. I would also like to thank Judy Harris for editing the case study.

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Introduction

The quality and relevance of vocational education have been the focus of policy dialogues in Sri Lanka for several decades. Reforms in Tertiary Vocational Education and Training (TVET) reflect the social, political and economic environment of the 1980s. Youth uprisings in the early 1970s and mid-1990s were attributed to some degree to the unemployment situation. The main issues on the resulting Sri Lankan workforce development agenda were: addressing the growing mismatch between labour market supply and demand from industry in the face of opening up the economy (towards a market economy); limited or restricted educational and career development avenues for youth, and the need for increased productivity and competitiveness and a flexible and globally employable workforce. These issues are reflected in sections 8 and 10 of the government's *10-Year Horizon National Development Plan, 2006-2016* (Ministry of Finance and Planning, 2005).

It is against the above backdrop that a National Vocational Qualifications Framework was proposed in the mid-1990s through a Asian Development Bank-assisted project: The Skills Development Project. The TVET sector was fragmented with around 300 vocational training centres under the management of 11 ministries, providing courses of varying quality, with differing levels of equipment and facilities and wide variations across urban and rural areas. The National Vocational Qualifications (NVQ) system was seen as a way of introducing a nationally managed approach that would be efficient and accountable and responsive to the labour market, thereby addressing both social and economic expectations. The impetus was therefore donor-driven.

Section one of the case study discusses the broad historical and techno-economic context of the country. The recent economic history and the evolving occupational landscape is also explored as the backdrop for the introduction of an NVQF. Of particular importance are the successive attempts by the government to develop instruments for assessing the skills of industrial workers in public enterprises. Section two presents a broad overview of the general education, training, and higher education systems and articulation between them. Section three addresses the NVQF covering its purpose, design aspects, the structure of the framework, the scope of the current system and factors enabling and inhibiting its progress. Section four is a general discussion of the positive outcomes to date and some teething problems. There is also a commentary of potential problems that have failed to materialize so far. The final section looks to the future.

1. Country context

1.1 History and labour market developments

Sri Lanka is an island in the Indian Ocean, situated at the southernmost tip of the Indian Subcontinent. It is a sovereign state with a democratically elected government and universal franchise. Previously known as Ceylon and Serendib, Sri Lanka has long been considered an exotic isle by Arabic, Greek, Roman, and Chinese traders and travellers. Its history dates back 3,500 years and is chronicled in historical texts of the ancient world. The island is famous for its civil constructions, dating back to the pre-Christian era, primarily irrigation works, temples and

palaces, stone masonry, etc. It has a rich tradition of craftsmanship and traditional forms of learning which still exist to some degree. Scholarly learning was based in Buddhist temples and crafts were acquired through apprenticeship to master craftsmen.

This picture has changed during the last 500 years as the country has been successively colonized by the Portuguese, Dutch and British. Systems of governance, jurisprudence, economy, business and education changed rapidly under British colonial rule when practices were imported from Britain into what was then Ceylon. The country's tropical climate and lush greenery were exploited for the cultivation of tea, rubber and coconut, in plantations spreading over several thousand acres. For 300 years the domestic economy was oriented to the production of cash crops which were exported as primary products. Plantations were run by the British and produce traded on the London markets. Ancient irrigation reservoirs were upgraded to support local paddy farming which was dependent mainly on rain-fed water.

To support the transportation of produce from all corners of Ceylon, particularly the hill country, an extensive network of macadamized roads and railroads was constructed which converged on Colombo, the capital. Three centuries of successive rebellions necessitated further (extended) road networks to link regional colonial administrations and to control strategic areas such as sea ports.

The electro-mechanical production facilities of the plantations and their maintenance were serviced by private sector companies which had well-equipped workshops. Plantations, and associated trading and commerce were the major formal economic sectors during the colonial period. Paddy farming and to a lesser degree traditional crafts-based economic activities supporting a subsistence economy existed in parallel to the formal sector. These activities characterized the economic, industrial, and occupational landscape of Ceylon at the time of independence from Britain in 1948.

The economic landscape changed rapidly after Independence. Development programmes reaching out to the rural population were implemented, culminating in the nationalisation of several major bodies responsible for education, ports, road transport, petroleum distribution, plantations and utility services. At the same time, large-scale production facilities were established in textiles, steel rolling and melting, cement petroleum refining, fisheries and paddy processing. By 1979, the nationalisation programme and corresponding economic developments had resulted in a large public-sector economy.

The early 1980s saw a new government, oriented towards a market economy. As a result, many public sector production and service agencies were transferred to private ownership. With the opening up of the economy, the private sector ventured into new industries and economic activities. At the present time, the private sector is the dominant economic sector; the government plays an enabler-facilitator role that is mainly concerned with public governance. However, large governmental infrastructural development work means that the government remains the largest contributor to the economy. The private sector now leads the public sector in terms of employment. Although ethnic conflict has affected the country's peace and development efforts over the last decade, a reasonable degree of economic development has been achieved resulting in reduced unemployment, reduced poverty levels, greater educational

opportunities for youth (in both university and vocational training) and a higher gross domestic product (GDP).

Recent political and economic developments have influenced tertiary and vocational education. Sri Lanka witnessed two youth uprisings (in 1971 and 1998) which had political and economic roots i.e. a radical political movement coupled with rising unemployment and a mismatch between education and labour market demands. Openings for higher education were limited (to only 2 per cent of primary school entrants) and those denied university entry had no other avenue for work preparation. After the opening up of the economy in the early 1980s, emerging industries found that the quality and type of labour needed were not produced by the education and vocational training system. The government responded to this problem in a piecemeal way in the early noughties; no attention was given to a holistic and structural solution. Although there were about 300 public tertiary and vocational training institutes, these were spread across 11 ministries. Courses for the same trade and level consisted of different curricula, training approaches, physical facilities, quality of training and degrees of internal efficiency. Moreover, there was great variety and inconsistency in access to employment opportunities (Asia Development Bank, 1999). Dropout rates were high and the post-training employment performance was extremely poor. This represents the backdrop to the reforms of tertiary and vocational education in Sri Lanka (which are explored further in sections two and three of this report). The distinction between tertiary and technical training is one of related job level. Most tertiary education is for the preparation of paraprofessional technical staff for clerical, accounting, and other occupations; entry qualifications are generally completion of Grade 13, and courses are of 2-3 years duration.

1.2 Population and economy¹

The population of Sri Lanka at the end of 2008 was 20 million and per capita income was over US\$1000 per month. The country has followers of four major world religions: Buddhists, Christians, Hindus, and Muslims. The ethnic fabric comprises Sinhalese (72 per cent), Tamils (17 per cent) and Moors and Malays (8 per cent) and includes Burghers (descendents of Dutch settlers) and other minority groups such as Chinese and Parsis.

Sri Lanka saw robust economic growth between 2007 and 2008 when the GDP grew by 6.5 per cent. The economy has proved more resilient than anticipated by most local and international observers. The private sector has refined its survival mechanisms over the past years and shows continued growth in most production and service sectors. Post-tsunami reconstruction, credit expansion, and public sector investment continue to fuel the construction sector which now makes up almost 7.4 per cent of the GDP. Expansionary fiscal policies, a monetary policy that, while tighter than before, has left real interest rates largely negative along with high remittances (8 per cent of GDP) have boosted aggregate demand. On the supply side, the service sector remains strong (particularly telecommunications, finance, ports and logistics) and represents 68 per cent of GDP growth, despite the slow-down in tourism.

¹ The statistics that follow are taken from the Central Bank of Sri Lanka, Annual Report, 2008.

However, growth has come at a cost, as expansionary fiscal policy financed by domestic and external borrowing has increased inflationary pressures, with inflation running at an estimated annual average of 20.2 per cent in 2007.

1.3 Labour force and labour market dimensions

- (i) Participation in the labour force: The population aged over 10 years is 16.4 million of which 8.1 million are active in the labour force. The labour force participation rate is around 49 per cent with 7.7 million people employed. A considerable proportion of the population is not in the labour force (8.3 million). The major constituents of this group are mainly children, youth in education, women engaged in household work and the elderly. The urban-rural mix of employed people is 12 per cent and 88 per cent respectively (Department of Census and Statistics, 2008).
- (ii) Employment trends: Employment increased between 2000 and 2008 to 94.9 per cent (96.7 per cent for men and 91.8 per cent for women). This figure breaks down into 57 per cent waged employees, 3 per cent employers, 29 per cent self-employed and 11 per cent unpaid family workers (Department of Census and Statistics, 2008). Female unemployment has traditionally been lower than male unemployment, but is showing a significant upward trend.
- (iii) Employment status: Of the 57 per cent waged employees, 15 per cent are employed in the public sector and 42 per cent in the private sector. This illustrates the role private sector employers play in the economy. The agricultural sector accounts for 29 per cent of the total employed. It is interesting to note that this figure has remained constant despite increased numbers of people in the labour market, suggesting that newcomers are being absorbed into other sectors (Department of Census and Statistics, 2002). The number of self-employed has grown in recent years. The informal sector has grown to represent 66 per cent of the total employed; the majority are involved in the production sector (45 per cent on a self-employed basis) (ILO, 2008). These trends could impact on developments in relation to a national qualifications framework (NQF) especially in terms of a potential demand for RPL (the recognition of prior, informally-acquired learning).
- (iv) Changes in employment in industry: Significant changes took place between 2003 and 2008. Manufacturing and construction have shown a 20 per cent increase in employment rates. Other sectors have seen 10 per cent increases. Agriculture, public administration, and tourism have seen decreases (Department of Census and Statistics, 2008).
- (v) Migration patterns: There is a significant outflow of workers to the Middle East, west Asia, south-east Asia and to developed countries. Domestic workers comprise 49 per cent of emigrant workers; unskilled workers, 20 per cent; semi-skilled workers, 2 per cent; skilled workers, 22 per cent. The remaining 7 per cent are professionals, sub-professionals or from clerical and allied occupations (Sri Lanka Bureau of Foreign Employment, 2007). Emigrant workers account for the 4th highest foreign earnings for the country and are therefore the focus of policy initiatives to support qualified and safe employment. The secessionist war in the north and east of the country led to high levels

of Tamil emigration. However, the end of war may result in significant numbers returning to Sri Lanka to contribute to its development.

- (vi) Labour market regulations: To safeguard workers' rights, minimum wages are set for industrial activities. Apprentices, semi-skilled and skilled workers' wages are regularly reviewed by statutory tripartite committees under the Department of Labour. Wage setting forums (Wage Boards) exist for all the trades and occupations in each industrial sector; the principal determinant of wage is years of service. Collective bargaining systems are in place to resolve labour disputes and to establish labour regulations. About 30 per cent of large manufacturing and commercial sector firms currently subscribe to these systems. There are concerns about rigidity and the lack of attention to competency alongside time-serving. This presents a challenge for the national vocational qualifications framework (NVQF) and negotiations are underway to establish qualifications as the basis for wage-setting (indeed, some private sector companies have already initiated such a system). There is a general consensus that the matter is complex and will be a long-term process.²

1.4 The role of international development organisations

Sri Lanka is a member of the Commonwealth of Nations, the United Nations, the South Asian Association for Regional Cooperation (SAARC), the World Bank and the Asian Development Bank. International development agencies have assisted the country to achieve Millennium Development Goals through financing schemes to develop key economic sectors and supporting much-needed reforms in public finance management and governance. Bilateral and multilateral development agencies have provided assistance in infrastructure, education and vocational training, health, public sector reforms and in other areas vital for the country's overall human development.

Support for reforms in tertiary and vocational education have been underway since the 1970s, including quality and curriculum improvement, capacity development, enhancing physical facilities, staff development for teachers and management and increasing responsiveness to labour market demands.

The World Bank (1981) funded the Construction Industry Training Project and the Institute for Construction Training and Development (CITP-ICTAD). This was a sector-wide project to develop: skill standards for construction craftsmen (modelled on practices developed in the United Kingdom); standard curricular for construction training; teaching-learning materials and associated trainer training. The outputs were adopted by several major training providing agencies.³ The partner delivery agencies were the Department of Technical Education and Training (DTET) technical colleges, the Department of Labour district and mobile training centres (which were absorbed into the Vocational Training Authority in 1988), several non-governmental organisations and other government agencies providing construction-related training. The World Bank initiative went as far as the design of training workshops for the

² Amongst trade unions, employers and the Tertiary and Vocational Education Commission.

³ Including the Department of Technical Education and Training, the Vocational Training Authority of Sri Lanka and the Department of Small Industries and the National Youth Services Council.

delivery of efficient teaching-learning including the development and monitoring of on-site training.

Several major bilateral donor agencies are actively involved in supporting the tertiary and vocational education and training (TVET) sector, but their inputs are primarily aimed at disadvantaged and vulnerable groups, with the understanding that established national structures, processes, and standards will be adopted by the respective vocational training deliverers in their training-related operations.

A significant wave of donor input was funded by the Asian Development Bank (ADB). There were two projects, both with a national remit and both highly influential in terms of paving the way for the establishment of the NVQF. The first was the Skills Development Project (ADB Loan No. 1707 SRI) which ran between March 2001 and January 2007 (with an extension), focusing on the reform of TVET and involved all training providers. The main objectives of this project were:

1. To strengthen the national sectoral apex body, the Tertiary and Vocational Education Commission, so as to coordinate interventions to improve the quality and market relevance of skills training programmes.
2. To rationalize the resource allocation and budgeting for vocational training agencies.
3. To standardize competency-based training, standards, curricula, teacher training and the quality of instructional materials across the 300 public sector vocational training centres (operating under 11 ministries).
4. To develop 20 new skills training courses and to convert 25 existing courses into competency-based format.
5. To develop skills standards with corresponding training standards and trade tests for the 45 competency-based training courses.
6. To develop, test, produce and distribute competency-based training materials for all 45 courses.
7. To establish a National Vocational Qualifications Framework including: the development of an accreditation system, assessor training and certification, expansion of the National Trade Testing Programme and establishment of a quality management system. In short, to prepare the ground for full implementation (in terms of human capacity building, systems building and institution building).

The second was the Technical Education Development Project (ADB Loan No. 2197) which runs from April 2006 to October 2010 (running parallel with the end of ADB Loan No.1707-SRI), focusing on linkages between TVET and higher education. The main objectives of this project are:

1. To strengthen the Ministry of Skills Development, Vocational and Technical Education (the predecessor of the current Ministry of Vocational and Technical Training) and other relevant institutions in support of market-responsiveness.
2. To strengthen policy analysis in the sector.
3. To embed the standards developed in the first project and develop standards for technologists and technicians.
4. To strengthen quality assurance systems in TVET.
5. To enhancing the public image of the sector.
6. To establish the University of Vocational Technology (Univotec) focusing on technical and technological education – developing university administration and technical capacity, student selection procedures, new curricula and upgrading facilities and equipment.

Both projects were concerned to strengthen national coordination and management through TVEC to ensure quality, relevance, effectiveness and efficiency. The projects attempted to tackle the rationalisation of resources, particularly to support the less-resourced vocational training centres in rural areas and in some economically disadvantaged districts. The project completion report for project no. 1707 SRI noted some achievement in these areas. Reforms in budgetary performance (inputs/costs vs performance auditing) were also addressed. However, the methodological and operational aspects of linking budgetary performance to standard-setting metrics are still being studied.

2. Education and training

2.1 Overview

Sri Lanka has a wide network of schools, vocational training centres and universities. The government, with equity of access as its main principle, is the mainstay of education provision. Education is free from the first year of schooling to the end of undergraduate study.

The traditional educational development path is well articulated and allows a considerable number of students to attain higher education . Several issues have been highlighted during the last 20-30 years in relation to education as a whole. The widening of the economy and the diversification of sectors into many avenues of manufacturing, agriculture-food processing, garment production, service sectors including finance, information and communication technology, trading etc. have led to concerns about the quality of the human resources produced and their relevance to economic needs. The need for curricular reform to cover much larger professional areas and applied sciences has also been an issue of debate.

Economic and education planners identified the need to move from the traditional British education system (instituted over four decades) to a much wider system, responsive to the needs

of a developing country. The *Reforms Agenda in the Human Resource Development Sphere (Education and Training)* drew assistance from the World Bank, the Asian Development Bank (ADB) and several bilateral donor agencies.⁴ The following bodies have provided assistance in the area of vocational training and technical education: the ADB; the International Labour Office (ILO); the Japanese Bank for International Construction; the German Technical Assistance Agency (GTZ); USAID, as well as several international non-governmental organisations (NGO). Support was oriented to the system reforms necessary to improve the quality and relevance of TVET provision and led to the establishment of a National Vocational Qualifications Framework (NVQF) in 2005.

Key factors in education and training:

- (i) Literacy: According the demographic surveys, there was a noticeable increase in overall literacy levels between 1981 and 2001. The rate for both males and females over the age of 10, rose from 87.2 per cent in 1981 to 91.1 per cent in 2001 (Department of Census and Statistics, 1981, 2001).
- (ii) General education: Table 1 (below) outlines the main functions within general education. The vast majority of schools are in the public sector (93 per cent) with religious schools accounting for 6 per cent and private schools 1 per cent (Central Bank of Sri Lanka, 2008b). Provision is free and uniforms and text books are provided.

Table 1. Key players in educational provision

	Function	Responsible institution
1	Policy making and institutional administration	Ministry of Education
2	Policy formulation (think-tank)	National Education Commission, Ministry of Education
3	Quality improvement of teaching-learning, curricula development	National Institute of Education, Ministry of Education
4	Production of school text books	Department of Educational Materials Production and Services, Ministry of Education
5	National examinations	National Examination Department, Ministry of Education
6	Delivery of Education	Schools - public (Ministry of Education) and private providers (religious and private sector)

- (iii) Curriculum: A national curriculum covers grades 1 to 13. National curricula have characterized Sri Lankan education for nearly a century, across colonial and post-colonial periods. Such an approach to curricula is very ingrained in the national psyche and associated (sometimes unproblematically) with quality (and *inter alia* quality assurance)

⁴ As outlined in section 1.4: Role of international development agencies.

and equity. Any attempt to change the status quo results in contention and intense political debate at the national level. The national curriculum is developed by the Ministry of Education with guidance from the National Education Commission and the National Institute of Education. The examination system is unified with General Certificate of Education (O Level and A Level) at grade 11 and 13 respectively (see table 2 below). The university entrance qualifying level is grade 13. The same curriculum is adopted by most private schools, although several international schools adopt curricula and examinations linked to the United Kingdom (UK), for example, Edexcel and the University of Cambridge International Examinations.

Table 2. Level of schooling, grades and access to education/employment

	Level of schooling	Grades and examinations	Providing access to...
1	Primary	Years 1-5	General unskilled employment
2	Secondary – lower secondary	Years 6-11; General Certificate of Education (Ordinary Level)	Vocational and technical education; tertiary education; employment in trade, clerical, sales and accounting occupations
3	Secondary – upper secondary	Year 11-13; General Certificate of Education (Advanced Level)	Tertiary and higher education; employment at technician and paraprofessional levels in clerical, sales and accounting.

- (iv) School participation rates: The participation rate of male and female children at the primary level is very high, at nearly 85 per cent (Department of Education, 2007a). However, dropout of male children in rural areas is observable from grade 6 onwards, reaching about 8 per cent by grade 10. Socio-economic reasons account for this phenomenon. Correspondingly, the participation rate of girl-children appears to be well above male children from grade 6 onwards. Most male children who dropout from schooling (primary and secondary) in rural areas form the crux of the unskilled labour force. They tend to engage in informal apprenticeships, unskilled work in formal and informal sectors and sometimes enter the sales and services sectors.
- (v) Supply and demand in higher education and TVET: Candidates for the tertiary and vocational training sectors are students with O or A levels who are seeking employment and/or a career path in a recognized occupation (Department of Education, 2007b). Those who are unsuccessful in entering university often opt for non-governmental higher education provided by professional bodies in engineering, architecture, chemistry, economics, finance, supplies management, paramedical etc. Another option is to study abroad; some students prepare for this by acquiring internationally recognized upper secondary qualifications. Statistics reveal the challenge faced by TVET providers. In 2007, 52 per cent of the 457,000 students who sat their GCE O levels were eligible to move into A level study. Approximately 60 per cent of those go on to qualify for a university place (about 140,000 students) but only 20,000 places are available, so only 14 per cent of qualifying students can be accommodated in government universities. Of the original 457,000 students, about 310,000 (or 67 per cent) have to seek immediate

employment, or enter TVET. While undergraduate-level openings in the universities have increased, they have not kept pace with demand and attainment.

2.2 University and higher education

- (i) Overview: The university system in Sri Lanka is dominated by 15 government-funded institutions with a total student population of 68,579 (44 per cent male and 56 per cent female) (Department of Census and Statistics, 2008b). In addition, the non-government higher education professional bodies referred to above, offer qualifications equivalent to the basic degree. Some foreign universities operate in the country; these are not registered with or accredited by the Sri Lankan University Grants Commission which covers the management of accreditation in the rest of higher education.

Government-funded universities offer undergraduate courses and postgraduate courses (leading to postgraduate diploma, master's degree and PhD). Some postgraduate programmes are fee-paying. The World Bank funded IRQUE project ('Improving Relevance and Quality of University Education') succeeded in increasing the market relevance and orientation of courses without sacrificing academic standards. Some diversification of degree courses was also introduced particularly in relation to emergent economic activities in agriculture, fisheries, commerce and information technology (IT). The IRQUE project also led to enhanced research capacity in the universities along with greater linkage between universities and industry and the service sectors. Present provision therefore encompasses traditional academic and newly emerging study areas.

- (ii) Access to university education and articulation arrangements: Access to degree-level study is ostensibly open to all those who complete grade 13 and acquire A levels. However, as noted, demand exceeds supply. Those who fail to get a place (on merit grounds) are eligible to register as external candidates, subject to an enrolment fee. Such candidates are mostly in the humanities and physical sciences and are in circumstances where they can take advantage of tuition from private, fee-paying institutions which may or may not be registered with the University Grants Commission. There is currently no provision for transfer into government universities from TVET, except via the newly established Univotec (described in detail below). Degree holders from higher education professional bodies which are recognized by the respective professional bodies can access master's level courses. The absence of articulation between TVET qualifications and degree-level study can be attributed to lack of precedent and the traditionally academic nature of government universities.
- (iii) The University of Vocational Technology (Univotec): This is a parallel degree-awarding institute that is distinct from the traditional university structure of the country. It is a paradox but perhaps the only possible and practicable means to open a pathway to university-level study for TVET graduates at the present time. At the time of writing, Univotec is only several months old and issues concerning recognition agreements between two awarding systems are still to be resolved. The University of Vocational Technology fulfills a necessary social equity function by providing access to higher

education for technical personnel and by supplying technologists to industry where there are skills shortages.

2.3 Vocational training

- (i) A short historical sketch: Vocational training has a long history in Sri Lanka, dating back 200 years to the Catholic priesthood. Traditional apprenticeships under master craftsmen date back 3,000 years and remain in place in traditional arts and crafts and selected artisan trades such as masonry and carpentry. In the 1980s the sector was characterized by a jungle of certificates, approximately 300 training centres operating under 11 government ministries plus the efforts of the private sector and some NGOs. There was a considerable mismatch between the outputs of vocational education and labour market demands (Asia Development Bank, 1999). Since then, vocational training has become better organized, with coherent policies and delivery mechanisms that are more responsive to the country's social and economic needs. This is evidenced by the goals and objectives of the Mahinda Chinthana *10-Year Horizon National Development Plan* (Ministry of Finance and Planning, 2005) and from an implementation perspective, by the performance of Tertiary and Vocational Education Commission and the outputs of the two recent ADB-funded projects: the Skills Development Project and the Technical Education Development Project. Achievements in general education have also contributed to the improved quality of the workforce. The government is currently emphasising equity by ensuring greater access to vocational training for rural youth and those in disadvantaged and conflict-affected areas. This has been achieved by increasing the number of rural vocational training centres, by widening the trades they offer and reorienting them to emerging advanced technology applications in manufacturing. At the same time, the private sector has contributed to capacity building in the commercial and service sectors where there is growth due to general improvements in quality of life. Labour market developments have been matched by proactive responses from the government particularly from the Ministry of Vocational and Technical Training. The Tertiary and Vocational Education Commission has been empowered to influence the TVET sector in terms of relevance and efficiency.
- (ii) Ministerial structures: These resemble counterparts in other countries, particularly the UK. However, a difference is that the leading body representing the Presidential Executive Authority is called the President's Secretariat. Final executive authority in the form of ministerial recommendations has to be sanctioned by the President's Secretariat. Line ministries lead implementation agencies in the form of government departments (established by acts of parliament), statutory agencies (corporate bodies authorized by the Cabinet through a general act) and commissions (think-tanks or regulatory bodies established by acts of parliament).

The line ministry with responsibility for vocational training policy is the Ministry of Vocational and Technical Training (MOVTT), supported by the Tertiary and Vocational Education Commission (TVEC), as the regulatory body. The main implementation agencies are the Department of Technical Education and Training, the Vocational Training Authority and the National Apprentice and Industrial Training Authority. The

National Institute of Teacher Education of Sri Lanka falls under the Ministry of Vocational and Technical Training. In August 2008, the University of Vocational Technology (Univotec) established under the Univotec Act (2007) under the Ministry of Vocational and Technical Training, absorbed the functions, staff and premises of the National Institute of Teacher Education of Sri Lanka.

Donor-funded projects usually operate under respective line ministries. Government agencies receive funding from the Treasury via the Ministry of Finance and Planning and are required to report on their performance through the National Planning Department (NPD) of the Ministry of Finance and Planning. The NPD is responsible for deriving long-term national developmental plans (translating the political and socio-economic manifesto of the governing political party) and ensuring that ministries align their programmes accordingly. Other regulatory bodies affecting vocational training include the National Education Commission, the all-encompassing educational sector think-tank/policy formulator and the University Grants Commission, responsible for the universities and other higher education institutes e.g. postgraduate educational establishments.

- (iii) Providers of vocational training: There are a considerable number of providers, all regulated by the Tertiary and Vocational Education Commission. Although training is provided by NGOs and private sector providers, the major providers are the government centres spread across 11 ministries.

The Department of Technical Education and Training oversees the largest contingent of government training providers including colleges of technology and technical colleges which offer technical and commerce-related training at NVQ levels 5 and 6, and level 3 and 4, respectively) and some tertiary courses.

Colleges of technology operate on a provincial basis. Their creation was part of the ADB Technical Education Development Project. They run NVQ level 5 and 6 courses (diplomas and higher diplomas) that articulate with Univotec programmes. The Vocational Training Authority (VTA) offers NVQ level 3 and 4 programmes through a network of district and rural vocational training centres. The National Apprentice and Industrial Training Authority (NAITA) organizes apprenticeships (see figure 1). These are usually in industry in urban areas and in small enterprises in rural areas.

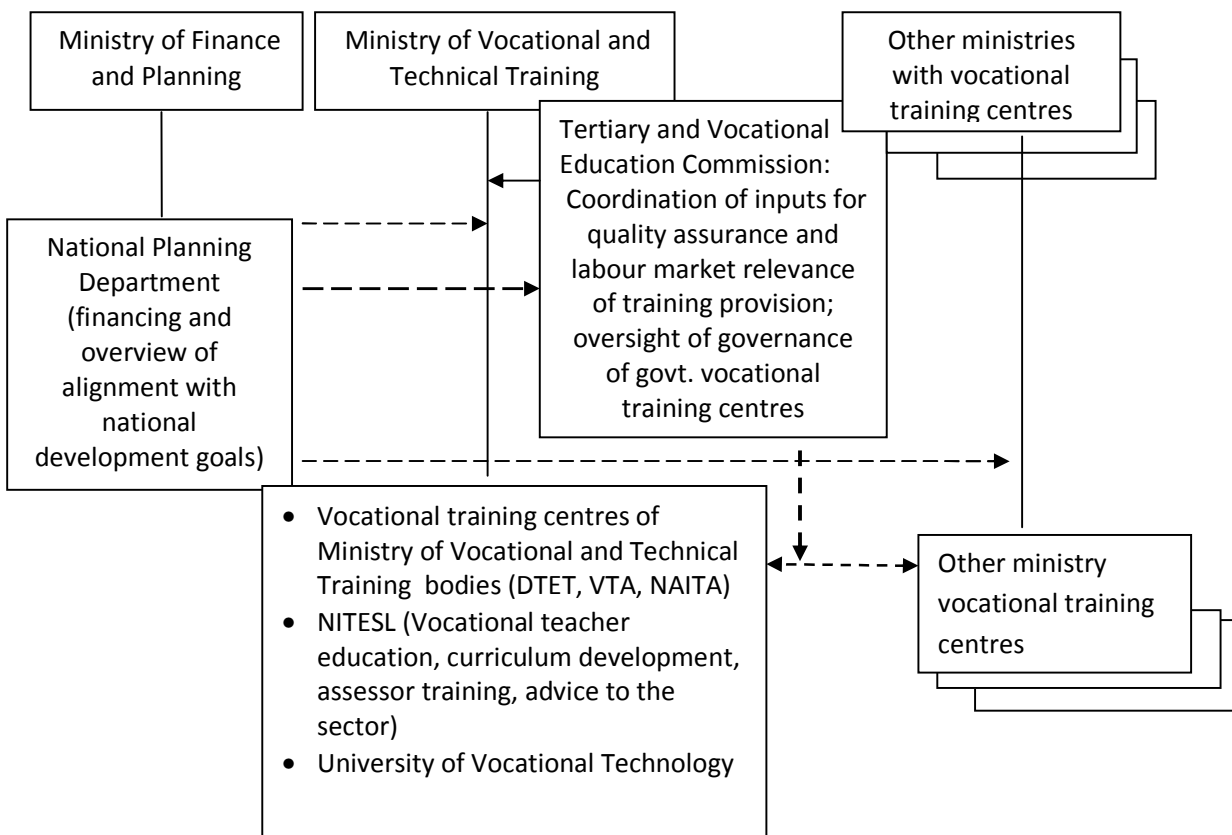
The National Youth Services Council provides entrepreneurship development, life-skills and livelihood-focused programmes for young people, and the Samurdhi Authority provides programmes which aim to alleviate poverty. The Gemidiriya Foundation (a World Bank project) offers a village-focused, holistic human development programme with a poverty alleviation component, where the target group is the family rather than the individual.

Life-skills and livelihood-oriented vocational training and a limited number of tertiary-level programmes are provided by functional line ministries such as agriculture, fisheries,

rural development, health, construction, telecommunications, transport, textiles and garments, healthcare, and science and technology.

As the above paragraphs show, most mainstream government programmes are oriented to youth and vocational training. A category of “beneficiary group focused” programmes are funded as special government projects or are provided by NGOs, religious organisations or the Department of Social Services. See table 3 for a summary of the major roleplayers.

Figure 1. Ministerial structures and relationships re: TVET provision



The Department of Education’s non-formal education has changed over the last decade. Originally it focused on life-skills and selected vocational training which operated in general education schools (after school times). The number of operating centres has decreased due to financial and capacity issues. Increasing literacy levels and public interest in more formalized courses have contributed to the decline in this kind of provision and the focus now is on the life-skills development needs of disadvantaged groups.

Courses vary in duration from one week to several weeks (in the case of local livelihood-focused programmes) and from six months to one or two years (in the case of vocational

programmes) Tertiary-level programmes generally last for two years. Most formal training courses include an industrial placement for on-the-job training. These compliment the theoretical and practical training received in formal vocational training centres and can also support employment after training.

Table 3. TVET: the major roleplayers

	Institution	Function/ mode of delivery	Financing source	Type of institution
1.	Ministry of Vocational and Technical Training (MOVTT)	Policy-making; oversight	Govt.	Govt. ministry
2.	Ministry of Finance and Planning (MOFP)	Policy-making; financing	Govt.	Govt. ministry
3.	National Planning Department (NPD)	Planning; oversight	Govt.	Govt. department
4.	Tertiary and Vocational Education Commission (TVEC)	Planning and sectoral coordination	Govt.	National commission
5.	Dept of Technical Education and Training (DTET) - technical colleges	Formal training delivery; craft/trade courses NVQ L3-4, and some tertiary courses	Govt.	Govt. department
6.	Dept of Technical Education and Training (DTET) - colleges of technology (COT)	Formal training delivery; technician courses NVQ L5-6	Govt.	Govt. department
7.	Vocational Training Authority (VTA), district and rural training centres	Formal training delivery; NVQ L3-4	Govt.	Govt. statutory body
8.	National Apprentice and Industrial Training Authority (NAITA)	Industrial apprenticeship; small-enterprise apprenticeships; NVQ testing	Govt.	Govt. statutory body
9.	National Institute of Technical Education of Sri Lanka (NITESL) (became Univotec in Sept. 2009)	Vocational teacher education; curriculum development; assessor training	Govt.	Govt. statutory body
10.	Private and NGO training providers, registered with TVEC or non-registered	Formal training delivery	International NGOs, charity, private funds, limited govt. funding	Private and non-governmental organisations

	Institution	Function/ mode of delivery	Financing source	Type of institution
11.	Non-formal training centres (Department of Education)	Non-formal training; vocational and life-skills	Govt.	Govt. department
12.	Vocational training under the functional line ministries	Formal training; vocational and tertiary courses	Govt.	Govt. department
13.	Skills development centres for disabled, Dept. of Social Services	Formal training delivery	Govt.	Govt. department
14.	University of Vocational Technology (Univotec)	Academic education; vocational technology	Govt.	University – govt. institution

- (iv) The role of colleges of technology in training provision: These colleges were established in response to several labour market issues, particularly the supply-demand gap for middle-level technicians and technologists in emerging industries (with FDI-Foreign Direct Investments) and the unemployment of educated youth. TVET provision for technicians and technologists was rather weak and the numbers needed for both local and foreign markets were not being produced. These issues were the basis for the second ADB project (No. 2197 SRI (2006 to 2010), the Technical Education Development Project, *inter alia*: wider access to TVET; increased quality; labour market relevance and teacher-trainer development (for the technician and technology programmes). The project's expected outputs are cited below:

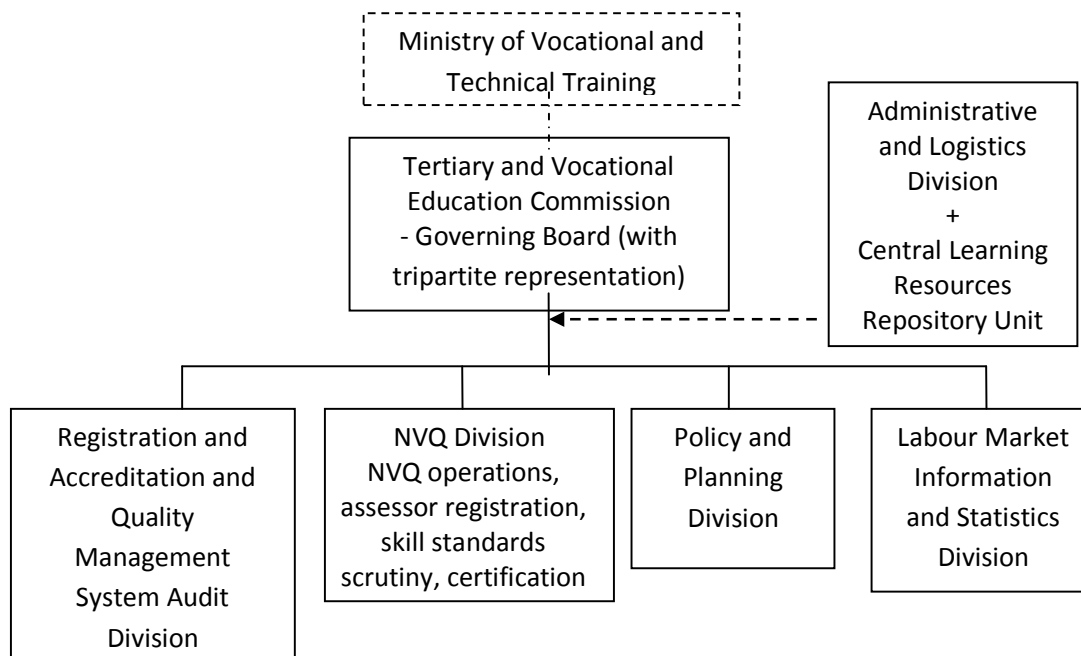
The Project will strengthen and expand the capacity for technician and technological education. The Project will raise the quality, relevance, and sustainability of the programs for technicians and technologists by developing training and program standards; upgrading selected Technical Colleges to Colleges of Technology; and strengthening the capacity of teachers, trainers, personnel, and administrators. The development of the NVQ for technicians and technologists will help institutionalize an alternative education and career path, particularly for school leavers, in technical and technology education leading to a degree. Annual enrolment [and] intake capacity of technician diploma programs is expected to increase by about 2,400 full-time and part-time students. The Colleges of Technology will be the vehicle through which the above objectives will be achieved.

- (v) The oversight function: The Ministry of Vocational and Technical Training is responsible for ensuring that the country's tertiary education and vocational training efforts meet the skills needs of the industry and the national development programmes. The Tertiary and Vocational Education Commission acts as the national apex agency. Its organisational structure is shown in figure 2 below. Its objectives are as follows:

- The planning, coordination and development of the tertiary education and the vocational education at all levels in keeping with the human resource needs of the economy.
- The development of nationally recognized systems for the granting of and vocational education awards including certificates, and other academic distinctions.

- The maintenance of academic and training standards in institutes, agencies and all other establishments providing tertiary education and vocational education.

Figure 2. The Tertiary and Vocational Education Commission: organisational structure



- (vi) Coordination of the sector: The Tertiary and Vocational Education Commission is the focal point for sectoral coordination. Training is largely formally organized and institutionalized. Most of the training delivery agencies, both private and public, are registered with the TVEC - a formal requirement under the Tertiary and Vocational Education Commission Act, No. 20, 1990. Registration is therefore now a legal prerequisite for providers. Earlier registration requirements were revised during the ADB Skills Development Project. In line with NVQF requirements, the Tertiary and Vocational Education Commission is developing a well-established procedure covering course accreditation, a quality management system (QMS) and quality audits (adopted from the ISO 9000 series) (see figure 2 above). All government TVET providers have fallen in line with the latest requirements albeit with some nudging from the Treasury (the public purse-holder).

Procedures do not cover the financial or governance functions of private TVET institutions; these fall under other government agencies' legislative enactments pertaining to NGO funding, management of charities, financial accountability for tax purposes and so on. However, private and NGO providers are motivated to adhere to the same general requirements because of the positive image they create with industry and user-groups. A further motivation is that private students wishing to continue their studies overseas need to have their certificates validated by the TVEC. Indeed, registered private providers offering NVQ courses now have their own association – the Accredited Training

Providers' (Private Sector) Association (ATPA) – which commands respect from private sector employers as well as from students.

Most of the TVEC's current efforts are therefore directed towards the ongoing reform and quality improvement requirements of the NVQF, for example, underpinning systems of accreditation, assessor registration, certification, quality management (QMS) and auditing. In addition, national curricula and teaching and learning guides are designed centrally and made available through TVEC's Central Learning Resource Centre. Assessor selection and registration is also carried out by the Tertiary and Vocational Education Commission. The NVQ Division of Tertiary and Vocational Education Commission coordinates and manages the overall NVQ development and implementation operations (see figure 2 above).

- (vii) Budgetary provision and financing: The present annual operating budget for training centres is approximately US\$15 million. Providers reported that recurrent expenditures are progressively increasing. The vocational training sector as a whole faces financial difficulties because 82.5 per cent of government expenditure is recurrent costs i.e. concerned with the salaries of teaching and non-teaching staff. This leaves scant resources to cover the capital costs associated with modernising workshops and laboratories and developing instructional materials to accompany updated skills training programmes.
- (viii) Training outputs: Public sector training providers account for about 95 per cent of formal vocational training and their annual student output reached around 40,000 in 2008. There are no fees for government provision, whereas some private centres are fee-paying. Tertiary-level training is dominated by professional associations, producing about 6,500 paraprofessionals per annum. Apprenticeship training constitutes about 20 per cent of the total annual training output, particularly in the rural areas.
- (ix) Level and extent of institutional provision: The main training modes are formal provision and apprenticeships. Formal vocational training centres dominate the landscape, providing trade certificates with courses leading to NVQ levels 3 and 4 and occasionally level 2. Courses last between one and three years and include a work placement of between six months and one year.

Trade apprenticeships have been formalized through the National Apprentice and Industrial Training Authority which provides industrial placements for a large number of youths seeking training. They involve a contractual period of workplace training and experience running for one to three years in a variety of contexts. Apprenticeships seem to be growing in popularity and there are signs that leading local firms with international brands (Holcim [cement] and Coca-Cola) and top-notch business leaders (in the construction industry) are considering industry-specific workplace-based vocational training using the NVQ approach to testing and certification. Employers stand to benefit in terms of efficiency improvement; workers gain recognition of workplace competence, certification and increased wage-earning potential.

- (x) Adult education, rural programmes and programmes targeting women: These programmes grew during the 1970s but are now in decline. This can be attributed to the government transferring investment to vocational training for the youth and to the general education system. However, a considerable aging population (30 per cent above 45 years of age) with lower educational attainments (about 30 per cent below grades 5-10) suggest that there is a strong case for supporting adult education. People in this category now fill the ranks of unskilled and semi-skilled workers and comprise a large proportion of the labour force (15-18 per cent). The TVEC (2006) found that about 75 per cent of the construction labour force have educational attainment below grade 10. A case study of workers undergoing NVQ tests (through a Recognition of Prior Learning [RPL] scheme) at one of the leading construction companies (Maga Construction) showed that most artisans (carpenters and masons) have limited general education (early school dropouts), come from rural areas, have had no access to formal vocational training and are over 40 years of age. The lack of adult education and further training has significantly contributed to poor career advancement, skill acquisition and wage-earning capacity for these workers.

Several donor- and government-supported programmes are addressing the economic and human development needs of educationally disadvantaged people living below the national poverty level. These programmes include combinations of formal and non-formal vocational training. Most women-focused vocational training combines economic incentive packages for small and micro-enterprise and self-employment. Such opportunities are mostly in traditional arts and crafts and are adhoc in nature. Exceptions are the programmes organized by the Samurdhi (the government's poverty alleviation programme) and the Small Industries Department. However, coverage is still largely inadequate to service the needy.

- (xi) Specific approaches to skills development - curriculum and assessment systems: Before 2005 and the advent of the NVQF, curriculum design, delivery and assessment were largely an adhoc process leading to disparities in quality and relevance to industry across multiple sites. The introduction of NVQF-based teaching and learning systems and resource materials (through the ADB-funded project (1707-SRI in 2001) kick-started the reform process. Subsequently, the Treasury withheld funds to government vocational training centres that were not registered and where courses were not accredited and following the NVQ approach.

The NVQ system has improved the delivery of vocational training, primarily due to the specification of curricular learning outcomes tagged to NVQ competency standards; the provision of structured curricular materials with teacher and learner guides; improved assessment procedures linked to outcomes; provision of equipment to meet the standards and technological environment set out in the standards, and ultimately, the (re)training of trainers in both methodology (pedagogy) and core technical knowledge.

The national skill standards are centrally designed at National Institute of Teacher Education of Sri Lanka. They are reflective of industry practices and the current technological environment in the country. Vocational training has become more

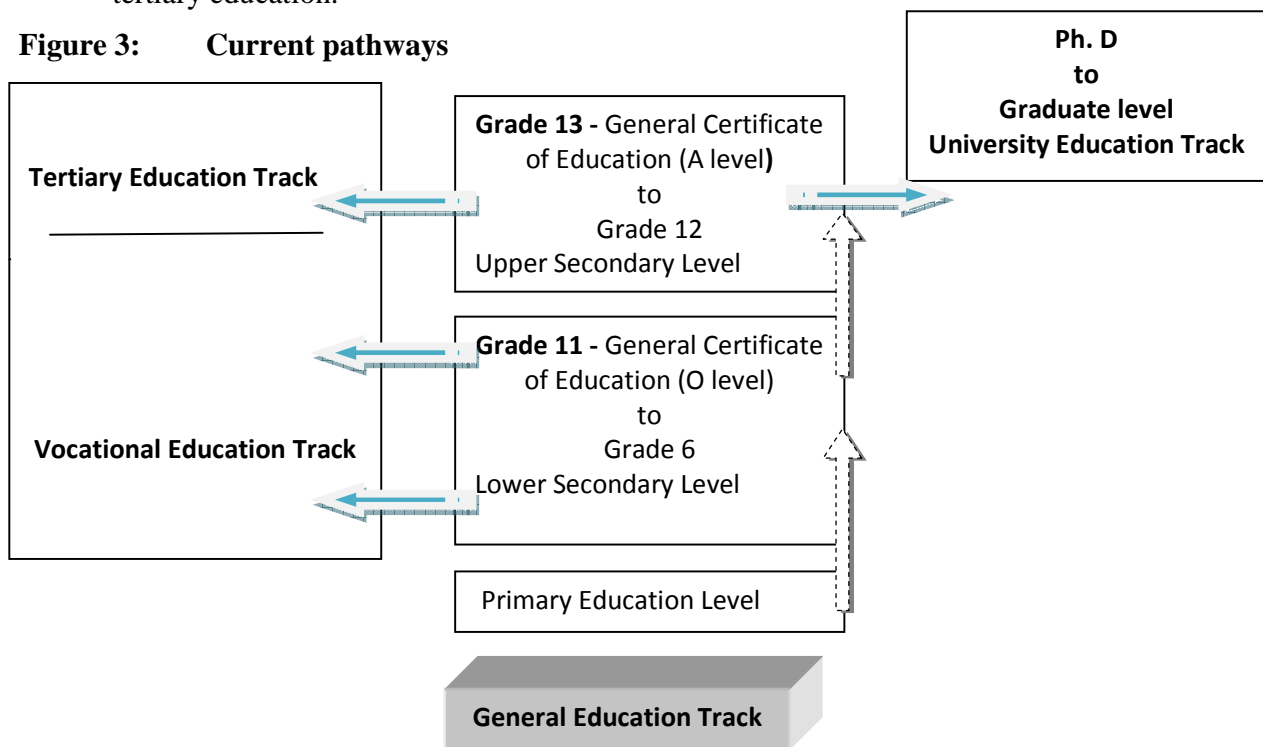
standardisation across the sector as a result, in terms of, for example: teaching-learning approaches; training outcomes and performance assessment; course design and resource utilisation (facilities planning and equipping); standardisation of assessments in accordance with NVQ standards; issue and traceability of certificates; quality assurance at centre and course level; quality audits; accreditation of courses; learning outcome recording instruments (for institution-based and on-the-job training) and an RPL system to record workplace-based competence.

The second ADB-funded project has recently produced curricula for training the trainers and orientation courses for managers in the new system. Assessment has been streamlined and assessors gain certification through a formal course at the National Institute of Teacher Education followed by an internship period shadowing an already certificated assessor.

2.4 Reforms in and across the three sectors (general education, university and TVET)

- (i) **Articulation and learning pathways:** As explained earlier, prior to the establishment of Univotec, there were limited learning pathways. Figure 3 (below) illustrates the lack of articulation. There was no pathway from vocational and tertiary education to university level study. This situation will change once the Univotec becomes fully functional. However, no link is planned between Univotec and the traditional universities. While Univotec is a very positive development in ensuring an academic track for those with vocational qualifications, the absence of a link demonstrates that the two entities are still distinct and distant. Figure 3 shows how the different grades feed into vocational and tertiary education.

Figure 3: Current pathways



- (ii) Educational reforms: Reforms across all sectors have been ongoing for several decades. Table 4 illustrates the reforms in a nutshell including the length of the projects, the donors concerned and the cumulative nature of the projects.

Table 4. Reforms in a nutshell

	Sector	Focus of the reform(s)	No. of projects, time period and financial support	Outcomes
1	General education	Improving quality of delivery, access, equity and relevance	2 major projects funded by the World Bank Several medium projects funded by GTZ (German Technical Assistance), JICA (Japan International Cooperation Agency) 1990s to early 2000s	New teaching-learning materials and text books; wider and more equitable access to primary education; new teaching and learning aids and equipment; regional standards as basis for reform of teacher education; administration and accountability increased to meet Millennium Development Goals
2	University education	Improving quality of delivery and relevance to labour market needs	1 major project funded by the World Bank Early to mid-2000s	New graduate courses; quality improvement of educational and physical facilities; industry-university links; stronger industry-focused research capacity and responsiveness; curricular reforms to meet increased networking needs with other economies (languages, ICT, soft skills etc.)
3a	TVET	Capacity building to meet labour demands of accelerated mega construction projects; need for improved quality in construction; procurement reforms; improved	2 major projects funded by the World Bank Early 1980s to mid-1990s Technical assistance from British Council and ILO	Improved curricula for intensive training in construction; capacity building-teacher training; manual development; provision of equipment and materials; upgrading of physical facilities; development of skills standards and a National Trade Testing and Certification System based

		quality of labour force through training and skill standards	2 major projects for construction equipment, maintenance and capacity building, funded by JICA Late 1980s to mid-2000s	in National Apprentice and Industrial Training Authority; establishment of centres to train construction equipment operator and mechanics
3b	TVET	Improving quality of delivery and relevance to labour market needs; accreditation of NVQs; registration of vocational training centres; introducing quality management systems for TVET providers	2 major projects funded by the Asian Development Bank Early to late 2000s 1 project funded by GTZ to improve career guidance capacities in order to increase equity and access to vocational training Early to mid 2000s	Introduction with qualifications framework, competency standards and associated assessment and teaching learning materials; aligning vocational training with national labour market needs expressed through competency standards; training of trainers, assessors and accreditors for NVQs and national curricula; reforms to improve planning and management of the TVET sector; improving the quality of curricula, equipment and facilities of major government TVET providers.

2.5 History of efforts to establish national competency standards

Historically, certificates of completion from vocational training centres were adequate for entry into the labour market, and progression through the labour market was qualification-led and time-based. The first attempt to devise a national scheme of qualifications was in 1960. The Ministry of Labour was keen to restructure recruitment and promotion practices in technical occupations in the public sector (the dominant sector of the economy at that time). Called *Sessional Paper No. 5, 1960: Recruitment and Promotion Scheme for Technical Tradesmen*, the scheme outlined the tasks and duties that respective tradesmen needed to be competent in at specified promotional levels (grades). There were three tradesmen grades and a master craftsman grade (sometimes designated as foreman-chargehand). The scheme was not aligned with training; merely serving as guide for recruitment. Trade tests were designed based on the specified tasks and promotions offered accordingly.

The next development was in 1981 with the Construction Industry Training Project (later formally established as the Institute for Construction Training and Development), a World Bank supported programme to develop personnel (craftsmen to professionals) for the sector. A set of skills standards for the sector were developed and a national trade testing programme initiated (in association with the National Apprentice and Industrial Training Authority (NAITA) which was

later legally mandated to perform this function). Initially, NAITA's work was funded by the Institute for Construction Training and Development supported by the World Bank and thereafter by the Treasury. NAITA and the construction sector started developing standards for apprenticeships in other trades and the system remained in operation until the commencement of the NVQF in 2005, when it was gradually replaced by the NVQ standards and associated assessment procedures. Table 5 is a comparative summary of the three approaches. The culmination is an NVQF with seven articulated levels.

Table 5. Characteristics of the three approaches to skill standards

	Characteristic	Ministry of Labour sessional paper – 1960	The Institute for Construction Training and Development and NAITA	NVQF
1	Content of the skill standard for each trade	List of tasks (usually 3-5 main tasks) and a brief trade test	Occupational description; knowledge, skills, and attitudes	Occupational description; list of units of competencies; units by level; underpinning knowledge, skills and attitudes; range statement
2	Other associated documents	None	Trade tests and an assesment scheme	Curriculum; trainer and learner guides; assessment instruments
3	Development	Team of engineers and professionals in the industry	Team of professionals, trainers and trade representatives	Team of trainers and trade representatives
4	Method adopted for design	Discussion	Consultative process with the industry	DACUM and consultation with the industry
5	Review	Team of professionals from respective departments	Industry training advisory committees	National Industry Training Advisory Committee
6	Authorisation	Commissioner, Ministry of Labour	NAITA National Steering Committee	TVEC National Steering Committee
7	Pathways	Within the trade only; grades 1, 2, 3, and master craftsman	Within the trade only; grades 1, 2 and 3	Levels 1-7; articulated from tradesman to graduate level
8	Coverage of industrial sectors	Primarily technical sphere	Technical administration and commerce sectors	All economic sectors

2.6 The University of Vocational Technology: Univotec

(i) Location of Univotec and its relationship with the National Institute of Teacher Education of Sri Lanka: Univotec falls under the Ministry of Vocational and Technical Training in accordance with the University of Vocational Technology Act 2008 (No.31). The official inauguration was on 1 March 2009. Univotec took over the functions, staff and premises of the National Institute of Teacher Education of Sri Lanka. In addition, all National Institute of Technical Education of Sri Lanka facilities and functions will be transferred to the University of Vocational Technology by 2008. Tuition is free, in accordance with all other government higher education institutions in the country. The first batch of 35 students is studying in the Faculty of Training Technology. In time, the University of Vocational Technology will offer degree level programmes through three faculties:

- Faculty of Training Technology providing pedagogical training.
- Faculty of Industrial Technology.
- Faculty of Vocational Technology.

The second ABD-funded project (Technical Education Development Project, ADB Loan-2197 SRI) involves the preparation of study materials for 11 diplomas at levels 5 and 6 (which will be based in colleges of technology) and 3 degree programmes for Univotec.

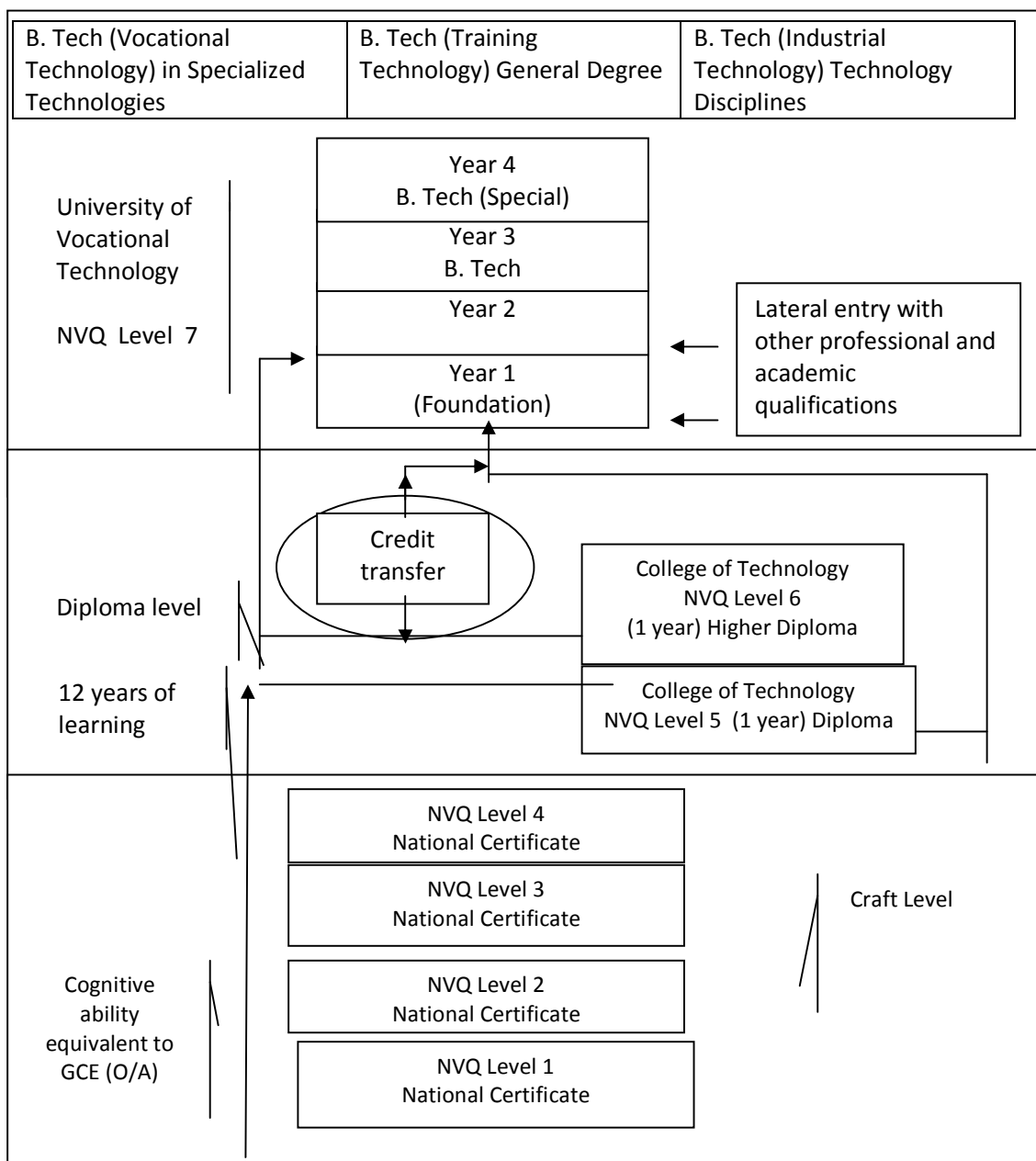
(ii) The objectives of Univotec: The general objective is to provide progressive upward movement to students in the technical education and vocational training system. The specific objectives are:

- To provide pedagogical training up to degree level for trainers in the technical and vocational education sector and industry.
- To provide courses of study for middle-level technical personnel, with qualifications acceptable for admission to Univotec, up to degree level.
- To provide courses of study for those with National Vocational Qualifications to upgrade their competencies and acquire a degree level qualification.
- To provide extension courses on continuous professional development.

(iii) The first student intake: The intake of 35 students onto the Bachelor in Training Technology Programme consists of instructors from colleges of technology who, on graduation, will run programmes at NVQ levels 5 and 6; trainers from the Vocational Training Authority; the National Apprentice and Industrial Training Authority and other government TVET providers. The first intake does include students from private providers. Students from government agencies are released from their current teaching duties to attend Univotec courses on a full-pay basis.

- (iv) Future plans: The Faculties of Industrial Technology and Vocational Technology will start offering courses on the completion of the first batch of NVQ level 6 graduates from the colleges of technology, which is anticipated to be in late 2010 or early 2011. The intake will consist of 70 per cent level 6 graduates with the balance coming in via lateral entry with equivalent tertiary qualifications from other tertiary institutes.
- (v) Funding: Operational costs will continue to be provided by the government. Establishment costs are met from project financing via the Government of Sri Lanka, the Asian Development Bank and GTZ (the German Technical Cooperation Agency).

Figure 4. Univotec: entry-exit model



3. The Sri Lankan National Vocational Qualifications Framework: Description and analysis

The Sri Lankan NVQF was established in June 2005 with the assistance of the two ADB-funded projects. As a recap, Skills Development Project (ADB Loan 1707-SRI (SF) ran from 2001 to 2007 and was responsible for developing the NVQ infrastructure and capacity *inter alia*: the development of an accreditation system, assessor training and certification, expansion of the National Trade Testing Programme and establishment of a quality management system. Included in the project brief was the development of 45 competency-based skills training courses (at levels 2, 3 and 4) with the full range of NVQ attributes: standards, materials, trade tests etc.

The Technical Education Development Project (ADB loan No. 2197 SRI (SF) runs from 2006 to 2010. This project set up review systems for the skill standards developed in the earlier project and operationalized levels 5 and 6 of the framework. It also assisted in the establishment of Univotec.

The NVQF is a unified national system established by statute, covering all agencies providing vocational- and tertiary-level education and training except for religious education, occult sciences, sports and recreation, dancing, music, performing arts or any other form of aesthetics and education or training in leadership (TVET, 2009).

3.1 Purpose

The overarching objective of the framework is to increase the relevance and quality of skills development and vocational and technical education and training, through:

- *Greater alignment to national development goals:* To be achieved by responding to skills development needs of emerging economic sectors and supporting skill acquisition in relation to new and modern technologies that are adopted by local industrialists.
- *Stronger linkages with industry and commerce:* To be achieved through stakeholder participation in the development of skills standards, assessment processes and curricula e.g. participation on National Industry Advisory Councils and in the selection of emerging in-demand occupations for skills standards development.
- *Increased responsiveness to industry training needs:* To be achieved through industry's use of skill standards and competency-based training for non-formally trained workers and also in formulating enterprise-based training programmes.
- *Convenient and flexible access for potential trainees:* To be achieved through streamlined application and assessment processes, in locations that are accessible to candidates across the provinces.

- *Proactive education and training strategies:* To be achieved through the competence-based curriculum and associated teaching-learning support materials; these will involve closer links between workplaces and TVET centres (urban and rural).
- *Improved international linkages and recognition for the TVET sector and its products:* To be achieved through increased recognition of NVQ assessments and certificates for people wishing to work or study abroad.
- *Collaboration between (and rationalisation of) training agencies:* Better resourced centres will collaborate with less resourced centres via student and trainer transfers, sharing of laboratories and teaching-learning aids etc.
- *Enhanced quality, relevance, effectiveness, efficiency and transparency of training delivery:* To be achieved through TVEC registration and QMS in the vocational training centres; the accreditation of courses; accurate record keeping; cyclical revisions of standards - all ensuring certificate holders are accepted by industry and remunerated accordingly.⁵

3.2 Participating agencies

The key agencies and their respective tasks are detailed in table 6 below. No new institutions were created to implement the NVQF. Rather, original mandates, with some modifications, were sufficient for carrying out the new roles.

Table 6. Participating agencies

Agency/body	Tasks and responsibilities
Tertiary and Vocational Education Commission	<p>National apex body in the TVET sector, responsible for management of the NVQF</p> <p>Determining occupations for skills standard development</p> <p>Development of national skills standards</p> <p>Award of certificates to trainees</p> <p>Assessor registration certification</p>
Tertiary and Vocational Education Commission, Registration Division	<p>Registration of public and private vocational training centres (continuing the original mandate of TVEC, 1990)</p> <p>Accreditation of courses</p>

⁵ The impact of these objectives is addressed in section 4.

	QMS for vocational training centres Quality audits
Tertiary and Vocational Education Commission, National NVQ Steering and Coordination Committee	National coordination of NVQ implementation
National Institute of Teacher Education of Sri Lanka	Development of curricula Development of assessment instruments Training of trainers and orienting managers to the NVQ teaching-learning methodology
National Apprentice and Industrial Training Authority	Standards development Training of assessors Testing of applicants
National Apprentice and industrial Training Authority, National Industry Training Advisory Committee	Industry vetting-scrutiny of skill standards
Department of Technical Education and Training, technical colleges	Delivery of trade-level courses - NVQ L3 and L4
Department of Technical Education and Training, colleges of technology	Delivery of NVQ L5 and L6 courses
Vocational Training Authority	Delivery of courses and assessment L3-6
University of Vocational Technology, Univotec	Delivery of NVQ L7 courses and bachelor degrees

Trade unions are primarily concerned with the “bread and butter” issues of their members, for example: salaries in relation to the cost of living and workplace and institutional injustices. Although trade unions have been formally involved in the development and implementation of the NVQF, the lack of a culture of tripartism has hindered full involvement. Moreover, training and career development are not traditional areas of concern for unions. Some trade union interviewees had only recently become aware of the framework and were considering the benefits it might hold for their members. It is likely that they will become more involved as socio-economic changes continue in the country; they are already represented on the governing body of the Tertiary and Vocational Education Commission (TVEC). With their wide membership, trade unions represent an attractive promotional channel for publicising the NVQ certification process, particularly the Recognition of Prior Learning (RPL).

3.3 The ‘Sri Lankan’ nature of the NVQF

As detailed in section 1.4, the NVQF was introduced gradually through a range of externally funded initiatives, beginning with the World Bank project in the construction sector. Indeed, reforms have been underway since the 1970s; each wave of development reflecting the patterns

of work organisation of the time and evolving accordingly. The NVQ structure is partial in that linkages to the university system are not yet established but are being facilitated by the University of Vocational Technology. Univotec is in consultation with the University Grants Commission regarding alignment with the university system in the near future.

The early approach drew on the National Vocational Qualifications system in the United Kingdom (UK) but became more aligned to the Australian Qualifications Framework and the New Zealand Qualifications Framework, albeit with considerable local adaptation. The main Sri Lankan characteristics are:

- A more descriptive format for national skills standards, recognising that this is the first time Sri Lankans have used such an approach.
- Competency-based training documents that are detailed and linked to the competency elements of the national skills standards complete with descriptors for learning outcomes.
- Range statements are less descriptive than in international models, reflecting the fact that in most Sri Lankan workplaces technical documentation and health and safety documentation are either not available or of a rudimentary nature.
- The technological requirements of some occupations are lower than in counterpart documents, reflecting Sri Lanka’s level of technology adaptation.
- Competency definitions are particularly focused towards the workplace, employment patterns and occupational levels and the generic tasks associated with them.

3.4 Structure of the framework

The NVQF consists of a set of seven level descriptors used for locating qualifications and standards (see table 7 below). The levels follow a single track up to level 6. Thereafter, Univotec has three degree-level tracks (vocational technology, training technology and industrial technology).

Table 7. Levels, qualifications-awards and labour market position

Level	Qualification -award	Labour market position
Level 1	National Certificate	Recognizes the acquisition of entry level skills
Level 2 Level 3 Level 4	National Certificate	These levels recognize increasing levels of competence. Level 4 equates with full national craftsmanship
Level 5 Level 6	Diploma	Recognize increasing levels of competence ranging from technician to management level
Level 7	Bachelors Degree or equivalent	Includes planning, resourcing, and management processes

3.5 Design aspects

The NVQF is based on units which are clustered into qualifications by occupation and level. The smallest assessable component is the element of competence which is described in performance criteria.

Learning outcomes relate to the elements of competence and are found in the curricula. They refer to demonstrated output in the training environment and act as a guide for trainers and external assessors. Trainer and learner guides provide detail of the learning outcomes and how they are to be achieved (through what teaching and learning approaches) and the criteria for their assessment (including the assessment of knowledge). Awards are made on a whole qualification basis i.e. a specified set of units. Single units are not awarded.

The presentation of national skill standards follows a generic model including the following:⁶

- Occupation title: standard code and level; endorsement date; qualification code; development group and NITAC committee reference; statement purpose statement; regulation for qualification assessment; schedule of performance units; accreditation requirements; assessment consistency requirements.
- Unit descriptor: unit title; description; code; elements of competence; performance criteria.
- Range statement.
- Assessment guide.
- Underpinning knowledge and skills.

Qualifications are developed by a team of specially trained trainers and industry specialists. The process used is functional analysis, supported by DACUM analysis, verification of analysed results and finally, task analysis. The decision-making process is fundamentally top-down, led by the senior management team of Tertiary and Vocational Education Commission. The *NVQ Operations Manual* (TVEC, 2008) outlines the sequential steps in developing a skills standard:

- TVEC identifies trades for standards development through analysis of labour market information and instructs the National Apprentice and Industrial Training Authority to commence standard setting processes.
- A standards-development group is assigned the task of developing the skill standard.
- Draft standards are circulated to the industry and public for comments and validity checking and returned to the development group for amendments if needed.
- Final draft standards are submitted to the National Industry Training Advisory Committee (NITAC) for scrutiny and recommendation to TVEC.

⁶ See Gajaweera (2007) for a critique of the current skills standards format.

- TVEC endorses the skill standard after final scrutiny by its NVQ division and informs the National Apprentice and Industrial Training Authority of the endorsement decision.

The skill standards thus finalized are available to the public and the development of training-related documentation commences.

3.6 Progress in standards development and assessment to date

Evidence suggests that the NVQF has moved into a wide variety of industrial sectors, servicing a higher number of occupations than the systems that pre-dated it. Table 8 outlines the industrial areas in which standards have been developed.

Table 8. Skill standards developed from 2006 to April 2009 (with ADB/SDP project financing)

	Industrial group (ISIC Classification)	No. of skill standards
1	Agriculture, Forestry and Fishery	3
2	Manufacturing	20
3	Wholesale and Retail Trade	2
4	Construction, Mining, and Quarrying, Electrical, Gas and Water Supply	12
5	<i>Public Administration and Defence</i>	<i>none</i>
6	Transport, Storage and Communications	14
7	Education	1
8	<i>Financial Mediation, Real Estate, Renting and Business Activities</i>	<i>None</i>
9	<i>Miscellaneous Labour Work</i>	<i>None</i>
10	Hotels and Restaurants	6
11	Health and Social Work	2
12	Other Community, Social and Personal Services, Activities in Extra-territorial Organisations and Bodies	4
	Total Skill Standards developed with ADB-SDP Project Financing	64

Source: Performance Report, NVQ Division, TVEC, 2009.

Table 9. Skill standards: developed and endorsed, 2005 - June 2009

Category	2005	2006	2007	2008	2009
Total no. of skill standards					90
No. endorsed by TVEC	45	00	09	00	05
No. developed but not endorsed as at June 2009	00	00	10	04	07

Source: Performance Report, NVQ Division, TVEC, 2009.

Table 9 shows the standards that have been developed to date. Of the total, 64 were developed under the auspices of the ADB projects, 7 drawing on USAID resources and 19 were funded

directly by the government through the TVEC. In terms of level: 80 standards are at levels 3 and 4; six are at level 5 and four are at level 6. Career progression exerts pressure for higher level standards; this means that development needs to take place vertically as well as horizontally (across more occupations).

Table 10 demonstrates social accountability in terms of the extent of materials development and public access to them. Although it is felt that public agencies are slow in responding to the need to keep clients informed, the pace and volume of documents for public consumption is evidence that the system is live and well.

Table 10. Standards development and public access to supporting materials, June 2009

	Category	No. of skill standards
1	Skill standards with published national skill standard document available to the public	71
2	Skill standards with printed curriculum available to the public	60
3	Skill standards with assessment resources	37
4	Skill Standards with trainer and learner guides	53

Source: Performance Report, NVQ Division, TVEC, 2009

Table 11. Certificates issues by year, mode and occupation, 2006-09

	Category	2006		2007		2008	
		CBT	RPL	CBT	RPL	CBT	RPL
1	Total no. of certificates issued	279	00	852	635	6600	1315
	Total certificates	279		1487		7915	
	Annual increase from 2006	1		5.3		28.3	
2	Total no. of occupations/ trades certificated (all levels)	18	00	40	24	73	28
	Total occupations/ trades certificated (all levels)	18		64		101	
	Annual increase from 2006	1		3.5		5.6	
3	Incidence of numbers certificated						
	Below 50 applicants per trade	18	00	34	22	46	23
	50-100 applicants per trade	00	00	06	01	09	01
	Above 100 applicants per trade	00	00	00	01	17	04

Source: Performance Report, NVQ Division, TVEC, 2009

Table 11 illustrates the number of certificates issued via competence-based training and the recognition of prior learning across occupations.⁷ It shows how delivery and participation have increased in the three years since the implementation of the NVQF. Assessor training has increased along similar lines. In 2006, 320 assessors were trained. In 2007, an additional 400 were trained; followed by a further 300 in 2008 and 120 in 2009. The total number of assessors is 1,140 (of which 160 are still in their probationary period (TVET, 2009))

3.7 Enabling factors

As of 2008, the new NVQF system appears to be well established, evidenced by the participation of increasingly large number of applicants and its general acceptance by industry and individuals. Gestation and mobilisation efforts have been within the projected time frames of the ADB project. A range of factors have supported this success:

A proactive policy environment: Three significant regulatory developments can be cited as having the most influence on the implementation of the NVQF:

- The original Tertiary and Vocational Education Commission Act, 1990, No.20 established TVEC as the main coordinating and overseeing body.
- The Amendment to the Tertiary and Vocational Education Commission Act, 1999, No. 50) established the independence of TVEC under the Ministry of Vocational and Technical Training.
- The Executive Order of the Minister of Vocational and Technical Training, 2005 made it incumbent upon all vocational training centres under the ministry (the major providers are within this ministry) to register with TVEC and transfer all their provision to NVQ mode by 2006.

Funding arrangements: Treasury monies have been directed to vocational training centres for NVQ-accredited courses and for equipping centres to higher levels where required. This has acted as an incentive for centre managers to fast-track their institutional development activities.

Pre-existing structures: The NVQF has built on earlier models of trade testing including some deliberate overlaps for a while, until the new system was embedded and accepted. Previous models meant that trainers were already aware of some basic concepts of the new approach and the limitations of the previous systems.

Cumulative development: Close relationships between the ADB project teams and TVEC in planning, organising and implementing the NVQF.

⁷ Informally trained applicants receive guidance from assessors in pre-assessment interviews which are a necessary step in orienting them to competency requirements.

International expertise: Adopting and improvising processes and philosophies from developed world models. Mentoring inputs from international consultants (including high-level industry professionals) who were involved in system and national policy development and implementation in their own countries.

Human capacity: The involvement of the National Institute of Teacher Education has brought competent personnel into the process. The institute reassigned job functions to accommodate the NVQ system.

Champions: A few private sector firms (still a minority) including international brand producers (Coca-Cola, Holcim) which understand the NVQ system from both technological and human resource perspectives.

Pool of beneficiaries: A large youth workforce who see career opportunities, economic advancement and professional recognition arising from NVQ certification as well as a large contingent of non-formally trained and informal sector employees who see avenues for empowerment and economic betterment.

3.8 Inhibiting factors

Obviously, the way has not been entirely smooth. A range of inhibiting factors were noted:

1. Comparatively poor response from chambers and industries (except for construction).
2. Inadequate promotional effort (and resourcing) from the TVEC in order to meet growing demand and to sensitize all stakeholders.
3. Absence of flexible and creative arrangements for supporting further training and also for improving the skills of those who are non-formally trained.
4. Limitations in availability and access to technical resource materials/teaching-learning resources for trainers.
5. Absence of an effective mechanism to monitor and record the comparative performance of training centres based on the NVQ certificates they award.
6. Absence (or inadequacy) of study leave and financial support for youth wishing to gain higher NVQs through formal training.
7. Lack of financial support for employed candidates with NVQ levels 3 and 4 to progress to levels 5 and 6. A danger that levels 5 and 6 may attract non-NVQ applicants as a result i.e. students with more academic inclinations.
8. A possible lack of capacity amongst providers of NVQ levels 5 and 6 competence-based training.

3.9 Progress against objectives

Three years down the line, interviewees expressed satisfaction. However, it will take a longer period of time before the full impact of the new system can be assessed. The information presented below provides some indication of impact in relation to the objectives set out earlier:

- *Greater alignment to national development goals:* To be achieved by responding to skills development needs of emerging economic sectors and supporting skill acquisition in relation to new and modern technologies that are adopted by local industrialists. Evidence of achievement: The development of skills standards in growth industries such as hotels and tourism, agriculture, manufacturing, construction, transport and communication etc. (see table 8).
 - *Stronger linkages with industry and commerce:* To be achieved through stakeholder participation in the development of skills standards, assessment processes and curricula e.g. participation on National Industry Advisory Councils and in the selection of emerging in-demand occupations for skills standards development. Evidence of achievement: Industry and other employers (e.g. Coca-Cola, Maga Construction, Builtmech Ltd.) are using NVQs as a determinant of the level of competency of their employees. The new system is being used as a model for developing enterprise-based training by Holcim Lanka Ltd. (for cement process plant technicians), the construction sector, hotels and catering and the beauty and cosmetics sector. As noted above, more needs to be done by TVEC to promote the NVQF to industrial sub-sectors, trade unions, the Ministry of Labour and employers' associations.
 - *Increased responsiveness to industry training needs:* To be achieved through industry's use of skill standards and competency-based training for non-formally trained workers and also in formulating enterprise-based training programmes. Evidence of achievement: The TVEC and Ministry of Construction and Institute of Construction Training and Development initiative to promote the training and certification of non-formally trained construction workers at NVQ levels 3 and 4.
 - *Convenient and flexible access for potential trainees:* To be achieved through streamlined application and assessment processes, in locations that are accessible to candidates across the provinces. Evidence of achievement: More accredited testing centres away from Colombo and the Western Province and more assessors practising in the trades that are available in the provinces where prospective testees come from. Fees for testing are becoming an issue for trainees and workers from poor communities, although this is not yet affecting the number of applications.⁸
- a) *Proactive education and training strategies:* To be achieved through the competence-based curriculum and associated teaching-learning support materials; these will involve

⁸ The TVEC decided that individuals should bear this cost and the government covers the main development and operational costs.

closer links between workplaces and TVET centres (urban and rural). Evidence of achievement: Increased complementarity of training in workplaces and vocational training centres; particularly in the rural areas, supported by standardized materials, as evidenced by the Moneragala Training Providers' Consortium for example.

- *Improved international linkages and recognition for the TVET sector and its products*: To be achieved through increased recognition of NVQ assessments and certificates for people wishing to work or study abroad. Evidence of achievement: Recognition given to NVQ certificates as evidence of possession of a nationally recognized vocational qualification for prospective emigrants (e.g. applicants to Australia, New Zealand, UK etc.); recognition for NVQ qualification holders who emigrate for educational purposes.
- *Collaboration between (and rationalisation of) training agencies*: Better resourced centres will collaborate with less resourced centres via student and trainer transfers, sharing of laboratories and teaching-learning aids etc. Evidence of achievement: Temporary student and trainer transfers, sharing of laboratories and teaching-learning aids is observable between the rural vocational training centres and the well-resourced district training centres (e.g. the Moneragala District Vocational Training Centre [under the Vocational Training Authority] and Beliatta Technical College (Department of Technical Education and Training)).
- *Enhanced quality, relevance, effectiveness, efficiency and transparency of training delivery*: To be achieved through TVEC registration and QMS in the vocational training centres; the accreditation of courses; accurate record keeping; cyclical revisions of standards - all ensuring certificate holders are accepted by industry and remunerated accordingly. Evidence of achievement: Continuing registration of vocational training centres (including private sector centres); accreditation of established courses; accreditation sought for new courses and cyclical revisions of the standards developed in the ADB project (about 30 old standards will be revised). Quality assurance measures are in place and appear to work satisfactorily judging by the low incidence of problems.

4. General discussion

Much has been achieved through the NVQF policy initiatives (registration, accreditation, QMS auditing etc.) supported by capacity building initiatives (physical facilities, equipment, teaching-learning resources, trainer training etc.) with some financial leverage from the Ministry of Finance and Planning.

4.1 Positive outcomes

The TVEC appears to be achieving its mandated role in that it has managed to coordinate and set in motion a regulatory process that ensures delivery of quality assured, labour-market responsive training courses through registered vocational training centres. The country now has a restructured system with increased stakeholder accountability through visible and comparable outcomes. Using the same skills standards across the country has levelled the playing field between government and private vocational training centres. Only 25 skills standards existed

before the NVQF; the figure is now 90, most with accompanying competency-based training materials. All centres are monitored by the same objective criteria including intake numbers, dropout rates and the number of candidates registered for and passing tests. These statistics monitor internal efficiencies and represent measurable outputs for funders and oversight agencies. Evidence suggests that these processes have energized the old system and led to increased levels of motivation for individual centres and their beneficiaries (TVEC, 2009b). According to interviewees from the National Constructors' Association (the only sectoral chamber promoting NVQs), the current NVQF financing arrangements provide an external impetus to the system, with benefits for non-state sector players as well.

There is evidence of continuing and growing involvement of stakeholders in the NVQF system. These include public sector bodies such as the Institute for Construction Training and Development; the Ministry of Public Administration; the Wages Boards (Ministry of Labour), the Ministry of Construction, the Ministry of Finance and Planning and of course, the Ministry of Vocational and Technical Training. Particularly encouraging is the involvement of industrial firms which are generally considered market-leaders in their own industries (Maga Construction, Mahaweli Marine Cement, Coca-Cola, Holcim Lanka-Cement); International Construction Consortium (ICC) and Builtmech [structural fabrications]). Some international NGOs now require both governmental and NGO vocational training centres to be registered with TVEC as a prerequisite for eligibility for development funding.

Committee structures with review responsibilities are installed and operationalized. They provide screening at several points in the system and document control and quality assurance. The TVEC National NVQ Steering and Coordination Committee meets monthly and takes decisions to resolve *operational bottlenecks*. Where shortcomings occur, for example, regarding skill standards—competency statements, cyclical revisions and the *feedback loop* from assessors and other participants (particularly the trainers and employers-professionals) enable corrective action to be taken. One such bottleneck was the high workload of the National Apprentice and Industrial Training Authority in terms of developing standards and associated processes. A skills gap in assessment capacity was also noted, set against increases in demand for assessment. TVEC decided to devolve some of these functions to the Vocational Training Authority and to its own NVQ division (May 2009).

Evidence suggests that more people are being certificated. The old systems certificated 40,000 people over 28 years. By comparison, the NVQF system has certificated 8,000 people in three years. There appears to be a match between qualification demand and supply. Job vacancies and number of NVQ applicants show a similar convergence e.g. beauty culture, bakery and pastry chefs and supervisory level work. Moreover, the number of trained assessors across all occupations is keeping pace with the number of applicants and applications .

The system appears to be responsive to new areas for standards development, for example, new competencies on life-skills for craft and supervisory levels were identified by employers and subsequently developed and implemented. The policy structure is also sensitive to *migratory trends*. This can be seen in an initiative to develop skill standards for domestic workers, who emigrate in large numbers to take up employment in the Middle East and elsewhere. The Sri Lanka Bureau of Foreign Employment is actively working with TVEC to develop skill standards

for several occupations which are considered in high demand in foreign job markets (linked to labour market intelligence gathering). The Bureau is also looking to include NVQs as a bargaining tool when signing Memoranda of Agreement with foreign governments on facilitating the entry of Sri Lankan migrant workers. Skills standards have also been developed in response to needs to *accredit informal workplace learning*, for example, in nursing, the bakery trade, the fisheries sector and in ICT. Anecdotal evidence suggests that women in the informal sector who gain qualifications receive higher wages than their unqualified counterparts.

Decisions about which occupations to develop standards for are made by the TVEC. The labour market intelligence gathering process is rather adhoc, in that local and foreign employment opportunities and vacancies are scrutinized and publicized in the TVEC Labour Market Information Bulletin. The intention is to pick up on trends, growth sectors and occupations with good employment prospects and income-earning opportunities. Decisions are made as to whether such occupations and the employees in them would benefit from qualifications. The same applies to the informal sector and self-employment. Although somewhat adhoc, evidence suggests that the right trades have been selected for standards development activities.

Though it is still early, initial signs suggest that *progression to higher levels* is underway. For example, colleges of technology have started running level 5 and 6 courses to cater for trainees who have achieved at NVQ level 4. Furthermore, records show that those in receipt of a level 3 certificate (via competence-based training or RPL) have been successful in achieving level 4 certification (NAITA, 2008, 2009). Moreover, numbers applying for higher levels in the same trade are increasing.

Evidence from leading companies such as Coca-Cola and Maga Construction suggest that holders of NVQ qualifications are enjoying increased employment prospects (permanency, promotions etc) and higher wages. These companies are using the qualifications framework as a tool for workplace performance improvement. Coca-Cola and Holcim Cement, are working with TVEC to develop skill standards for newly designated occupations specific to their industrial sectors e.g. bottling machine operator, cement plant maintenance technician, cement plant operative.

The first ADB project's completion reports and post-project evaluation represent the only formal evaluation of NVQ accomplishments to date. However, a retrospective study is planned on completion of the second ADB project. The Sri Lankan government requires quarterly and annual reports from the TVEC. These reports follow an activity and output-based structure. The TVEC *Corporate Plan, 2009-13* identifies outcomes to be demonstrated over the four-year period. Although TVEC has declared its adherence to the MfDR (a results-based approach to management, this does not yet appear to have been addressed by senior management.

4.2 Teething problems

The NVQF has been operating for barely three years, so it is somewhat premature to discuss long-term difficulties. However, several teething problems have come to light:

- There is some evidence of stressed throughput capacity in the light of increasing applicant demand. This mainly affected the National Apprenticeship and Industrial Training Authority which experienced reduced efficiency in its testing and certification functions. However, as mentioned, the TVEC devolved some of these functions to other bodies in May 2009.
- There are some complexities involved in linking qualifications and wage levels. These involve the TVEC and the Wages Boards (Ministry of Labour), respectively.
- Apart from construction, the chambers of industry and trades have not been involved in the NVQF process to date. They do participate in formal functions but have not actively pursued a concerted and focused programme to promote NVQs among their member firms (based on interviews with chamber officials).
- The same is true for employers as a whole. Apart from the active individual employers outlined above, many others are uninvolved. There is a need for more promotional activity and a partnership strategy to address *inter alia*: stimulating NQF uptake in particular subsectors; gaining participation in standards setting; implementing RPL schemes. Interviews suggested that some apathy stems from a reluctance of employers to invest in skills development and to consider tagging wages and promotions to NQF levels and qualifications.
- Some tensions exist between old and new systems. These were raised in interviews with vocational training centre managers and revolve around institutional traditions and cultures. The introduction of the new system, new measures of quality control and third-party accountability is markedly different to older systems where there was more independence and autonomy e.g. in curriculum design and quality matters.
- Expectations of vocational training centre managers and trainers were high regarding the financing they were to receive. They expected the government to cover the costs of all consumables, equipment maintenance and operating expenses. In reality, budgets were more restricted than they envisaged and cheaper, creative solutions had to be found, such as capacity and resource sharing. This caused apprehension amongst trainers and fears that they might not be able to fulfill their programme obligations.
- According to interviewees, operational delays in testing and certificate issue (such as those experienced by the National Apprenticeship and Industrial Training Authority) may continue to be an issue in future. Similar logistical problems could arise between interacting agencies and also within agencies due to poor streamlining of operations and lack of operational staff.

4.3 Potential problems that have not materialized

Several notional negative outcomes were checked during the research process to assess their possible occurrence. They were mostly found to be ill-founded in actuality.

- (i) Proliferation of unused qualifications: For all standards available for testing, it was observed that applicants are available. Furthermore, all of the occupations on the NVQ standards list have granted certificates (see table 11). It is therefore too early to conclude that qualifications are unused, as only three years have passed since the commencement of the system and standards are still being produced.
- (ii) Bureaucratisation of assessment: This refers to over-specification and “box ticking” types of assessment. Stakeholders, particularly in the construction sector, prefer the performance-based method over the evidence-based method, justifying their position by stating that the “performance needs to be seen”.
- (iii) Lack of trust in the new qualifications by employers or educational institutions: No evidence has been seen of qualifications being challenged by industry on the grounds that they do not reflect the general complexity of work tasks. However, additions are being suggested by industry.
- (iv) Trainers claiming that the new curriculum is a straitjacket: Some trainers who have been used to (a) a traditional curriculum with no performance specifications and (b) the flexibility to independently interpret learning outcomes, are dissatisfied with the new system, claiming that it straitjackets creativity and places the trainee before an external authority for assessment. However, these trainers are in the minority and it appears that they are now conforming to the new way of doing things.
- (v) Lack of learner access to theoretical knowledge: There are risks associated with those entering the system via RPL in terms of moving from level 4 to level 5 in that they may not meet the theoretical learning requirements because of low levels of formal education. Due to the relatively high incidence of workers with poor educational attainments, there is a risk that courses at colleges of technology and at Univotec may not be accessible to all. The possibility that Univotec may enrol students with alternate technician level qualifications from external bodies was raised earlier in this report. It is something that will need to be monitored.
- (vi) NVQ curricula applied inflexibility: There is a danger of NVQ curricula being used as a rigid document. Trainers may not conduct some learning activities on the pretext that materials or suitable equipment are not available. Again, this will need to be monitored.
- (vii) Lack of revisions of standards: There is a risk that cyclical revisions of the skill standards may be too complex to undertake on a regular basis. This would result in trainers, assessors and associated participants not keeping pace with new technologies.
- (viii) Resources directed to the NVQF at the expense of other priorities such as upgrading teachers and infrastructure: No evidence supporting this claim was found. Most trainers are of the view that the vocational training centres have benefited from having trainers who are more competent and knowledgeable about competency standards and assessment standards. They also claim that teaching and learning approaches and resources have improved and that monitoring of registered facilities will maintain standards. Awareness

raising and training programmes for trainers and managers have been extensive so all are fully cognisant of the new system. The next round of funding is directed to the accreditation of centres and courses which will act as an incentive to improve the quality of course delivery.

5. The future

The possible developmental stages of the NVQF are illustrated in figure 5 (below). The TVEC *Corporate Plan* covers the period from 2009 to 2013. The first two stages of figure 5 are identified within this plan. The final three stages were developed in conversation with TVEC senior management and represent actions needed to ensure that the NVQF is able to demonstrate well-orchestrated closed-loop adaptive capacity. The TVEC officials have gained experience and are now able to consider possible refinements to the system. The system development phases of the NVQF will taper off over the next two to three years and attention will need to turn to cyclic revisions of the standards and associated documentation. Costs by this time should be shared by industry; the government may only part-finance ongoing system developments. Financial responsibility for system maintenance will, in all probability, continue to rest with the government, although a larger proportion of direct costs will be met by the beneficiaries themselves i.e. by individual applicants and by employers as an investment in quality improvement or under their corporate social responsibility banner.

There are strong indications that industry support is on the increase. A noteworthy landmark is a recent presentation by Coca-Cola's Human Resource Management Team to a national convention of HRM practitioners. The team spoke about their experiences with TVEC in developing an NVQ assessment programme.

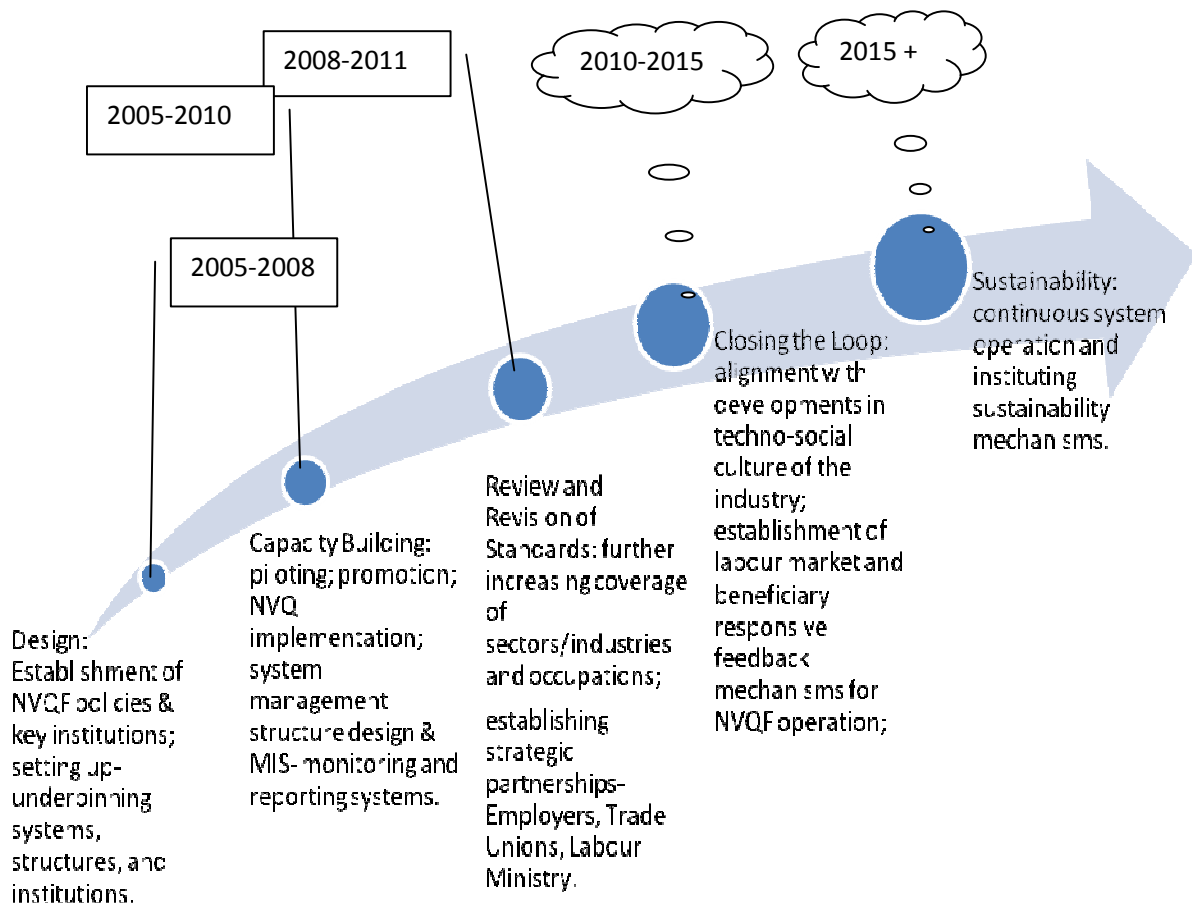
A widening range of employment sectors are actively working with the TVEC through the National Industry Training Advisory Committees to develop RPL mechanisms e.g. beauty culture, bakery, hotels and tourism and the jewellery industry. This is likely to continue and be augmented by increasing demand for certification from employees in the informal sector and in self-employment and micro-entrepreneurship. These include electricians, carpenters, beauticians and hair stylists, motorcycle mechanics and welders.

There are likely to be new demands from (a) those who have completed level 3 and are aspiring to reach level 4, but who do not have the opportunity (formal or workplace-based training) to improve their competencies (b) from applicants in the informal sector and those acquiring skills through non-formal means (c) from unqualified adults and (d) from vulnerable under-serviced groups of people.

The TVEC will need to move into detailed partnerships, for example, with the Ministry of Public Administration towards accepting NVQ awards for recruitment and promotion and with the Ministry of Labour towards finding ways to equate Wages Boards regulations with qualifications. If agreements can be reached, then more and more people will want accreditation. A particular pressure point will be the academic and financial support needs of those in supervisory/technician/subprofessional categories who aspire to acquire higher education in vocational technology.

Over the next few years, society at large will see the benefits of the system in terms of career mobility and upward progression, worker economic empowerment, social and economic recognition for those in the informal sector and windows of opportunity for adult learners. These positive developments will motivate delivery agencies and other concerned bodies to continue to operate and develop the system.

Figure 5. Projected future developmental pathway



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