INNOVATIVE STRATEGIES IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING FOR ACCELERATED HUMAN RESOURCE DEVELOPMENT IN SOUTH ASIA

SRI LANKA

ASIAN DEVELOPMENT BANK

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Contents

Tables and Figures

Tables

Figures

Foreword

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

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

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

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Preface

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

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

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

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

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

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

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Executive Summary

Sri Lanka is a small, open economy with a population of about 20.3 million. The population growth rate is 1.0%. The country has a lower middle-income economy, with a per capita income of $2,923 in 2010. Since the introduction of liberalized economic policies in 1977, Sri Lanka has experienced significant structural changes in the composition of gross domestic product (GDP), employment, exports, and imports. Despite the long-standing secessionist conflict that ended in May 2009, the average annual rate of growth was 5.1% during 1999–2009. In 2011, the Sri Lankan economy grew by an impressive 8.2%, reflecting fast recovery from low-growth and a move toward a high-growth trajectory.

According to the Global Competitiveness Index, Sri Lanka ranked 68th in 2012–2013. Within South Asia, Sri Lanka is second to India in competitiveness. Sri Lanka is now transitioning from factor- to efficiency-driven development; hence, efficient technical and vocational education and training (TVET) is vital to move up the value chain. Key factors affecting the country's competitiveness and growth momentum include higher value-added production and increased productivity. Higher education and training are crucial for economies that want to move beyond simple production processes and products and avoid the "middle-income trap."[1]

Sri Lanka's overall unemployment rate was 4.0% in 2012. For age groups 20–24 and 20–29 years, the unemployment rates were significantly higher (17.2% and 7.2%, respectively). The unemployment rate was 6.6% for individuals with the general certificate of education—ordinary level (GCE O/L) and 8.6% for those with the—advanced level (GCE A/L). On the demand side, however, employers in industry find it difficult to recruit labor at the operations level.

An important characteristic of the Sri Lankan labor market is the relatively high share of informal sector employment (63%) compared with the formal sector (37%). Across economic subsectors, the informal sector's employment share varies from 87% for agriculture to 51% for nonagriculture sector.

Sri Lanka operates in a tight labor market characterized by low unemployment, relatively high wages, and a high proportion of employment in elementary occupations.[2] About 24% of Sri Lankans employed are overseas, mostly as unskilled workers. Given this background, and in consideration of the increasingly competitive nature of the global markets,

[1] Refers to an economic situation wherein a country's growth plateaus and eventually stagnates after reaching middle-income levels. Avoiding the middle-income trap entails identifying strategies to introduce new processes, new markets, and new products to promote growth.

[2] Examples of elementary occupations are cleaner, helper, housemaid, laborer, ship boy, and room boy.

supply-side responses need to improve the technical and vocational skills of the labor force. With the emergence of knowledge-based economic activities and developments in information technology, TVET providers need to be very innovative and oriented toward industry demand.

In Sri Lanka, TVET comprises public, private, and nongovernment providers. The public sector continues to be the dominant player, with the Tertiary and Vocational Education Commission (TVEC) serving as the sector's apex body. Nevertheless, private and nongovernment organization (NGO) training providers have expanded their services over the past 2 decades, mostly confined to vocational subjects such as commerce, computing, accounting, and entrepreneurship. NGOs include many religious and voluntary organizations that offer craft training targeted at unemployed youth, rural women, school dropouts, and semiskilled or unskilled workers. TVET sector operates through a nationwide training service network with an annual enrollment of more than 150,000 students. Public TVET service providers account for 71% of the total enrollment compared with the private sector (19%) and NGOs (10%). The shares of full- and part-time course programs in public TVET are 77% and 23%, respectively. Public expenditure for TVET is about SLRs5.9 billion ($44.7 million) per year. Government funding for TVET has always been inadequate because technical education and training require substantial inputs of material, energy, machinery, and equipment.

Skills development in Sri Lanka is crucial on account of the country's experiencing demographic transition, low unemployment, high proportion of migrant workers, and low productivity, as well as increasing global competition. Sri Lanka's demographic transition implies that the demographic bonus period[3] will conclude in 2017 and its labor force is shrinking. Given that the country's unemployment is already low and a substantial proportion of its labor force is working abroad, it faces the possibility of labor shortage in the future. All these and the present low quality of labor and productivity in the country may affect the realization of projected growth targets. TVET is in position to address both the quality and productivity aspects of labor. New entrants to the domestic and foreign labor markets need training to upscale productivity. However, about 28% of the unemployed having TVET training reveals skills-jobs mismatches and shortage of talent for promoting innovation and creativity as reason for unemployment.

Overall, Sri Lanka has made progress in TVET since 1980. Female participation has increased and pro-poor benefit has improved. Several achievements were also noted in organizational and management effectiveness, particularly in policy and institutional support. Major TVET achievements since the 1990s include

- creation of an integrated supervising ministry (Ministry of Youth Affairs and Skills Development) and an apex body (TVEC);
- establishment of the national vocational qualification (NVQ) system;
- conversion of TVET courses into competency-based training;
- adoption of procedures and criteria for registration/accreditation of nonstate providers;

[3] Refers to a period when most of the population is of working age and can contribute to the country's economic growth. The opposite situation occurs when too many people (i.e., older retired people and young people) depend on workforce earnings.

- establishment of one college of technology in each province;
- establishment of a university with degree programs in technology;
- developing vocational education and training plans for growing important industry sectors;
- consultations with industry at the policy level;
- promotion of public–private partnerships; and
- establishment of a labor management information system.

However, areas such as regional equity in skills development need improvement. Strategic planning, performance-based funding, performance monitoring, capacity development, and institutional autonomy need more attention. There are also significant variations regarding unit costs and internal efficiency among training providers. There might be a need to apply economic criteria in financing TVET programs. The absence of a good MIS, particularly information on unit costs, staffing, and completion rates, was also noted as a major weakness of the present TVET system. Other key concerns include the need to

- improve the employability of TVET graduates;
- build the capacity of both academic and administrative staff;
- address inadequate financial resources, particularly in technological areas;
- redress inadequate quality assurance and quality control systems;
- address inadequate training for individuals seeking foreign employment;
- respond to the absence of an MIS; and
- build private and NGO participation in skills development.

The vital role assigned to TVET in the overall development strategy of Sri Lanka is well recognized in the policy reforms of the National Education Commission (2010), the development strategies and targets set out by the government and the National Planning Department (2011), and the recommendations of the TVET Task Force (2011) which highlight both the technical and policy-oriented interventions needed for the growth and expansion of TVET. The government has adopted a sector-specific approach to promote growth that considers labor market absorptive capacity, export orientation, and inflow of foreign direct investment. Some currently prioritized sectors include manufacturing, tourism, information and communication technology, and health services.

Considering the above issues, the following are general priority areas for attention and further intervention to augment TVET's contribution to national development in Sri Lanka:

- enhancement of the employability of TVET graduates;
- further development of national competency standards and national quality standards, and their enforcement;
- development of the capacity of TVET staff (both academic and nonacademic); and
- provision of institutional and policy support.

Abbreviations

ADB	Asian Development Bank
AETI	Automobile Engineering Training Institute
ATPA	Accredited Training Providers' (Private Sector) Association
GCE A/L	general certificate of education—advanced level
GCE O/L	general certificate of education—ordinary level
CGTTI	Ceylon–German Technical Training Institute
CoT	college of technology
DTET	Department of Technical Education and Training
EML	EML Consultants
GDP	gross domestic product
GTZ	German Organization for Technical Cooperation
ICT	information and communication technology
ICTAD	Institute of Construction Training and Development
IET	Institute of Engineering Technology
ILO	International Labour Organization
ITUM	Institute of Technology of the University of Moratuwa
LMIU	Labor Market Information Unit
MG	MG Consultants
MIS	management information system
MYASD	Ministry of Youth Affairs and Skills Development
NAB	National Apprenticeship Board
NAITA	National Apprentice and Industrial Training Authority
NDES	national diploma in engineering sciences
NDT	national diploma in technology
NEC	National Education Commission
NGO	nongovernment organization
NIFNE	National Institute of Fisheries and Nautical Engineering
NITESL	National Institute of Technical Education of Sri Lanka
NPD	National Planning Department
NVQ	national vocational qualification
NVQF	National Vocational Qualifications Framework
NYSC	National Youth Services Council
SLIATE	Sri Lanka Institute of Advanced Technical Education
TVEC	Tertiary and Vocational Education Commission
TVET	technical and vocational education and training
UNIVOTEC	University of Vocational Technology
VTA	Vocational Training Authority

$1.00 = SLRs131.45 (as of 19 July 2013)

CHAPTER 1

Socioeconomic Background

This chapter outlines the key socioeconomic information of Sri Lanka that relates directly to the development of technical and vocational education and training system. Discussions focus on population, economy and labor, and employment.

A. Population

Sri Lanka's population is estimated at 20.3 million (Census of Population and Housing 2012). The annual population growth rate for the past 30 years is about 1.0%. Although population is expected to reach 21.2 million in 2016 and 21.9 million in 2031, the population growth rate is expected to decline further in 2031–2036 (De Silva 2007). Consequently, the country's labor force growth rate is also expected to decline, from 1% during 1990–2008 to 0.3% in 2008–2020. Overall labor force participation rates are also projected to decline, from 55.2% in 2008 to about 52% in 2020 (ILO 2010).

The declining trend in Sri Lanka's population is clearly noticeable in the younger population. The projected population of the 15–24 year cohort is expected to decrease from 3.2 million in 2011 to 3 million in 2016. The 15–30 year age group will decrease, from 4.9 million in 2011 to 4.6 million in 2016 and 4.5 million in 2021. While labor force growth rates are projected to decline in many Asian economies, the rate of decline forecast for Sri Lanka is considerably greater than that of most other developing Asian nations (Appendix 1, Figure A1.1). Consequently, Sri Lanka's human resource development planners need to design skills development strategies that will maximize productivity from the declining number of new entrants to the labor force. Considering the emerging knowledge-based economic activities, the skills development of new workers is vital to promoting the growth and development of the Sri Lankan economy.

B. Economy

Sri Lanka is a small, open economy with a per capita income of $2,923. The country is at par with middle-income countries and on track for complying with the United Nations' Millennium Development Goals (MDGs) timetables for universal primary school enrollment, gender parity in education, and provision of reproductive health services. During the post-1977 period, the Sri Lankan government embarked on a major trade

liberalization program that prioritized export-oriented industrialization.[1] This policy reform package included promoting the private sector as the engine of growth and also promoting foreign direct investment. Positive changes occurred in the rate of economic growth, productivity, employment, the private sector's share of employment, inflow of foreign direct investment, and the export share of gross domestic product (GDP). Correspondingly, agriculture's share in total exports declined sharply from 79% in 1977 to 24% in 2012, and the share of industrial products rose from 14% to 75% during the same period.

Despite a long-standing secessionist conflict that ended in May 2009, Sri Lanka has posted healthy economic growth rates in recent years. In 1999–2009, its economy grew an average 5.1% annually. During this period, the economy contracted only once, in 2001, when a growth of −1.5% was recorded. The economy grew 8.0% in 2010 and 8.2% in 2011, but slowed to 6.4% in 2012. Projections suggest that GDP growth rates for the next 5 years will be about 8% per year.

Structural transformation has accompanied economic growth in the composition of Sri Lanka's GDP, which has shifted from agriculture to higher value-added manufacturing and service-oriented activities. In 1990, the agriculture sector accounted for 28.3% of GDP but declined substantially to 11.1% in 2012. The industry sector's share has remained stable at above 27% over the past decade. The services sector has grown the fastest and contributes the most—more than half of GDP (Table 1). Similarly, the share of the services sector in employment increased from 34.5% to 42.93% between 1990 and 2012, with the major areas of employment growth recorded in retail trade, health, education, business, and personal services. The industry share of employment also increased, from 23.3% in 2000 to 26.1% 2012, but remained the lowest share in employment.

Table 1: **Structural Changes in Sri Lanka's Economy**

	Share of GDP (%)			Share of Employment (%)		
Economic Sector	1990	2000	2012	1990	2000	2012
Agriculture	28.3	20.4	11.1	46.8	36.2	31.0
Industry	22.1	27.6	30.4	18.7	23.3	26.1
Services	49.6	52.0	58.5	34.5	40.5	42.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

GDP = gross domestic product.

Source: Government of Sri Lanka, Ministry of Finance and Planning, Department of Census and Statistics. *Labour Force Survey Annual Report (various years)*. Colombo.

Given the character of its economy, Sri Lanka needs to improve its competitiveness in foreign markets to maintain high growth momentum. Sri Lanka's ranking dropped to 68th in 2012–2013 compared with 52nd in 2011–2012 and 62nd in 2010–2011. The decline

[1] The new government, which came to power in 1997, introduced a series of promarket policy reforms as against the inward-looking, closed economic policy regime that had existed from the mid-1950.

in competitiveness are also observed in basic requirements[2] and efficiency enhancers.[3] Appendix 2, Table A2.1 shows the country's relative position against its Asian counterparts based on five criteria of competitiveness.

Because higher education and training are key determinants of efficiency enhancement, Sri Lanka needs to increase its research and training services, staff training, and quality of mathematics and science education. For example, in the World Economic Forum's competitiveness report for 2012–2013, Sri Lanka ranked relatively low in enrollment, extent of staff training, local availability of specialized research and training services, and tertiary enrollment. Appendix 2, Table A2.2 shows the competitiveness ranking of Sri Lanka and selected Asian countries in higher education and training.

Sri Lanka is transitioning from factor-driven to efficiency-driven in the Global Competitiveness Index framework (Appendix 3). In this context, enhancing the efficiency and effectiveness of technical and vocational education and training (TVET) sector is vital for Sri Lanka's upward movement in the value chain and for becoming a high efficiency-driven economy. Skilled workers and technicians enhance the efficiency and quality of production and product development.

C. Labor Force and Employment

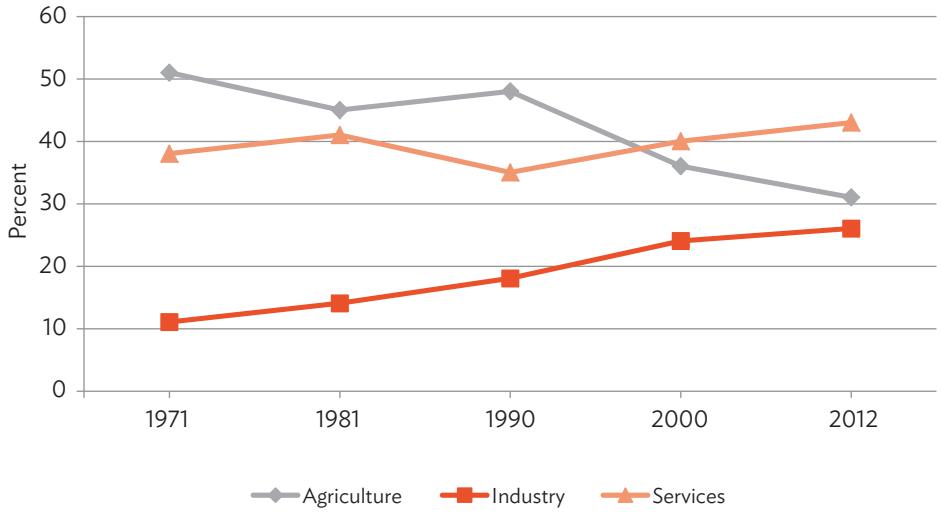
Sri Lanka invested heavily in social welfare, even before gaining independence in 1948. It provides education services free of charge to its citizens from the primary to tertiary levels. The country is on track in achieving the Millennium Development Goals (MDGs) related to primary education enrollment and completion rates, and gender equity ratios of 100% in primary, junior secondary, and senior secondary schools. As a result, the labor force is becoming increasingly better educated.

The country's total labor force grew from 6.8 million in 2000 to 8.5 million in 2012. Of this, about 6.3 million were employed in 2000 and 8.1 million in 2012 (Appendix 1, Table A1.1). In 2012, the overall unemployment was 4.0%. For age groups 20–24 and 20–29 years, the unemployment rates were significantly higher (17.2% and 7.2%, respectively). The unemployment rate was 6.0% for individuals with the general certificate of education—ordinary level (GCE O/L) and 7.5% for those with advanced level (GCE A/L) (Appendix 1, Table A1.2). Unemployment was much higher among females at all levels of educational achievement. For example, among individuals with GCE A/L and above, the female employment rate was 11.7% in 2012, compared with 5.5% for males. Similarly, the unemployment rate for females with GCE O/L was 6.6%, compare with 5.8% for males. On the demand side, however, employers in industry find it difficult to recruit labor at the operations level.

In 1990–2012, the relative share of private sector employment increased from 34% to 41%. In contrast, the relative share of public sector employment decreased from 22% in 1990 to 13% in 2004, although it increased to 15% in 2012 (Appendix 1, Table A1.3). The services

[2] Infrastructure and macroeconomic environment.
[3] Higher education and training, goods market efficiency, labor market efficiency, and technological readiness.

Figure 1: **Structural Changes in Employment, 1971–2012**



Sources: Government of Sri Lanka, Ministry of Finance and Planning, Department of Census and Statistics. *Labour Force Survey Annual Report (various years)*. Colombo.

sector has emerged as the most important of the national economy in terms of absorbing net additions to the labor market after the 1990s (Figure 1).[4]

Regarding major occupational groups, elementary occupations (e.g., cleaner, helper, housemaid, laborer, ship boy, and room boy), as well as skilled agricultural and fishery occupations are still dominant, but they decreased 24.7%–18.9% and 24.2%–20.9%, respectively, between 2002 and 2012. Plant and machine operators, craft and related workers, and sales and service workers increased significantly during the same period (Appendix 1, Figure A1.2).

The increasing trend toward foreign employment is another important structural feature of employment in the country. Estimates indicate that foreign employment totaled 400,000 persons in the early 1990s, but increased to 1.9 million in 2012.[5] This broadly included Sri Lankan nationals working abroad in five major occupational groups: (i) professionals, (ii) middle-level executives, (iii) skilled workers, (iv) unskilled workers, and (v) housemaids. Of these five categories, housemaids and unskilled workers accounted for about 70% of departures for foreign employment, followed by skilled (26%), middle-level executives (3%), and professional workers (1.2%). The average annual growth rate of departures for foreign employment for housemaids and unskilled workers is 2.6%; for skilled workers, 6%; for middle level executives, 8%; and for professionals, 22% (Appendix 1, Figure A1.3). The share of female workers in foreign employment was 39% in the mid-1980s, increased to 75% in 1997, and decreased to 51% in 2012. In contrast, the male share of foreign

[4] For more details, see Chandrasiri. 2010a. *Promoting Employment-Intensive Growth in Sri Lanka: Policy Analysis of the Manufacturing Sector*. Colombo: ILO.

[5] Central Bank of Sri Lanka (CBSL). Annual Report - 2012. Colombo.

employment increased from 25% in 1997 to 49% in 2012. Most females who departed for foreign employment in 2012 were housemaids, accounting for 88% of total female migrant workers.

In 2012, foreign employment accounted for 23% of labor force and 24% of total employment, providing important opportunity for promoting employment and earning foreign exchange for the country. However, one should be cautious in interpreting the information about job orders, which might have been overestimated due to possible double counting and inaccuracies by foreign employment agencies. Despite these limitations, the findings still indicate growth potential in foreign labor markets. Appendix 1, Table A1.1 shows the relative magnitude of foreign employment between 2000 and 2012.

The promarket policies of the post-1977 era led to the emergence of an export-oriented manufacturing sector in Sri Lanka. Its rapid growth and the competitive conditions in the market resulted in subcontracting and the emergence of informal type micro- and small-scale enterprises, particularly in the industry and service sectors.

The informal economy in Sri Lanka accounts for a significant share of employment and covers a wide range of economic activities in the agriculture, industry, and service sectors. Chandrasiri (2008) estimated the relative share of the Sri Lanka's informal economy at 60%–70% of total employment.[6] The Department of Census and Statistics estimated the informal economy's share of employment at about 63% of total employment in 2011 (87% for agriculture and 51% for nonagriculture) (Table 2).[7] Within the informal nonagriculture sector, the share was 80% for the construction, mining, and quarrying subsectors, compared with 50% for the hotel and restaurant subsector and 48% for the manufacturing subsector. The highest proportion of females was employed in the informal sector, accounting for about 57% of total female employment (Table 3).

Table 2: **Composition of Employment by Economic Sector, 2011**

	Formal		Informal		Total	
Employment	('000)	%	('000)	%	('000)	%
Agriculture	364	13.4	2,344	86.6	3,058	100
Nonagriculture	2,694	49.1	2,795	50.9	5,139	100
Total	**3,058**	**37.3**	**5,139**	**62.7**	**8,197**	**100**

Source: Government of Sri Lanka, Ministry of Finance and Planning, Department of Census and Statistics. *Labour Force Survey Annual Report - 2011*. Colombo.

Compared with the formal sector, the informal sector is dominated by individuals with lower educational attainment. Regarding type of employment, 47% of the total informal sector is self-employed and another 35% belong to the regular employee category. Across different occupational groups, skilled agricultural and fishery workers account for more

6 For details, see Chandrasiri (2008) and references cited therein.

7 Department of Census and Statistics (DCS) defines the informal sector as based on three main criteria: (i) registration of the organization, (ii) accounts-keeping practices of the organization, and (iii) total number of regular employees of the organization.

Table 3: **Composition of Employment by Economic Sector and Gender, 2011**

	Formal		Informal		Total	
Employment	('000)	%	('000)	%	('000)	%
Male	1,881	34.5	3,579	65.5	5,460	100
Female	1,176	43.0	1,560	57.0	2,736	100
Total	**3,057**	**37.3**	**5,139**	**62.7**	**8,197**	**100**

Source: Government of Sri Lanka, Ministry of Finance and Planning, Department of Census and Statistics. *Labour Force Survey annual Report - 2011*. Colombo.

than 35% of informal sector employment, 20% work in elementary occupations, and 17% are craft workers. Growth and expansion in the informal sector is largely due to the weak labor absorptive capacity of the formal sector, particularly the private sector, to generate adequate employment and incomes for new entrants to the labor market.

Driven by the promarket and probusiness policy reforms, employment shares of the industry and service sectors continued to increase. The expansion of business activities in the industry and service sectors over the past 3 decades implies a continuous increase in the demand for labor with technical and vocational skills. The dominance of the private sector in employment, the increasing magnitude of foreign employment, the high proportion of employment in the informal sector, and the effect of the demographic bonus,[8] require consideration in designing innovative strategies for TVET development in Sri Lanka.

[8] Demographic bonus occurs when most of the population is of working age and can contribute to the country's economic growth. Depending on earnings of the workforce, the opposite situation occurs when there are too many people (i.e., older retired people and young people).

CHAPTER 2

Technical and Vocational Education and Training System in Sri Lanka

This chapter examines the technical and vocational education and training (TVET) in Sri Lanka, paying particular attention to the evolution, organization and management, and performance of TVET. The findings reveal the highly complex nature of the TVET system, which comprises providers from the public, private, and nongovernment organization (NGO) sectors.

A. General Education System

Sri Lanka has a 13-year system of general education. The age of admission to grade 1 is 5 years. Compulsory education comprises grades 1–9; the public sector accounts for about 93% of primary and secondary education and 95% of student enrollment. Enrollment in primary education is 96%, and retention at the end of primary education (grade 5) is 99.5%. Each year, some 328,000 students enter the education system in grade 1. Students who complete the general certificate of education—ordinary level (GCE O/L) (i.e., grade 11) generally proceed to GCE—advanced level (A/L) studies. In 2008, only 134,906 of the 299,516 students who sat for the A-Level examinations passed. Students who do not complete A-Level often find some temporary employment while continuing to prepare for the next examinations. Others enter the workforce or opt for TVET courses with reduced entrance qualifications.

The Sri Lankan education system provides pathways and exit points to students at the primary, secondary, and tertiary levels (Appendix 4). Given the high enrollment rates in primary and secondary education, only a small proportion of students exit from the school system (i.e., primary to junior secondary). Exit from the school system occurs mostly at GCE O/L and GCE A/L, and an increasing number of students join the TVET sector; others join the labor market for employment. Based on the data from the Department of Examinations, every year, about 165,000 individuals leave the school system after GCE O/L and 90,000 leave after GCE A/L. Except for a small portion joining the labor market, most join the TVET sector for further education.

B. Evolution of the Technical and Vocational Education and Training

Formal technical education likely began in 1893, when the Colombo Technical School began operations in the premises of the Ceylon Government Railway at Maradana. This

school later developed into the Maradana Technical College, which remains one of the premier technical training institutions in the country. In 1957, another technical college was established in Galle, followed by technical colleges in other major towns.

In 1950, the Department of Labor established its Vocational Training Unit, which operated several craft training centers throughout the country. This was the government's earliest attempt to make vocational training accessible to rural youth, the most economically deprived segment of the population. A comparatively large center was established in the main city of each district, and many small centers were established in rural areas. The large centers conducted craft courses for welders, motor mechanics, masons, carpenters, and electricians, among others, while the small rural centers aimed mainly at the female population in the villages, conducting courses such as dressmaking and cooking. The Vocational Training Unit later expanded, ultimately developing into the Manpower Division of the Department of Labor.

In 1964, Ministry of Education established the Department of Technical Education and Training (DTET) to administer the technical colleges. By 2002, there were 37 technical colleges nationwide. Among these is the Institute of Practical Technology in Katubedda (now the University of Moratuwa) which was established in 1960 and was the only institute to conduct a certificate course for middle-level technicians and junior technical officers. The other middle-level technicians' course at that time was the diploma in engineering course at the Technical Training Institute (later known as the Hardy Institute) in Ampara, which operated under the Gal Oya Development Board.

DTET was the primary agency for TVET until 1971, when the National Apprenticeship Board (NAB) was established by the National Apprenticeship Act No. 49 and became another major player in the subsector. NAB was established primarily in response to a report of the Commission of Inquiry that investigated the cause of a youth uprising in 1971. The commission concluded that among the primary causes were unemployment among rural youth and lack of opportunity for social mobility. NAB's chief mandate was to establish a formal scheme for industrial apprenticeship to deliver craft training through state and private sector industrial establishments, thereby enhancing employment opportunities for youths. In the early 1970s, apprenticeship programs were managed by government departments and private sector establishments, but lacked proper coordination, evaluation, and certification.

In 1990, the Parliament enacted the Tertiary and Vocational Education Act No. 20 which established the Tertiary and Vocational Education Commission (TVEC) and the National Apprentice and Industrial Training Authority (NAITA). TVEC was a new institution established under Part I of the Act; NAITA was established under Part II, as the successor to NAB. The establishment of TVEC was the first attempt to coordinate and regulate the entire TVET sector, including both state and private sector training providers.

The conversion of NAB into NAITA was intended to broaden the scope of its activities, which had focused mostly on providing formal apprenticeship training through a large number of government and private sector industrial establishments. Even before its conversion, the scope of NAB activities had been broadened slightly by the NAB Amendment Act No. 1 of 1988, which empowered it to conduct national trade tests. These

tests aimed to certify the competencies of craftspersons who acquired skills through nonformal training in industrial establishments or through informal apprenticeships such as family-run enterprises. Over the years, the national trade certificates awarded by NAB/NAITA gained a substantial degree of credibility and acceptance among employers. They also provided a valuable means of upward occupational mobility for craftspersons lacking formal qualifications.

Another milestone in the development of the TVET sector was the establishment of a separate ministry for TVET in 1994. This could be considered a major achievement due to the highly complex and multi-institutional character of TVET providers in Sri Lanka. Although it took some years to bring almost all of the major TVET providers in the state sector under this ministry, a substantial degree of coordination and rationalization became possible for the first time in the history of TVET in Sri Lanka. However, full realization of this vision did not happen for various reasons, including bureaucratic obstacles, lack of enforcement, and the resistance to change the existing system. Subsequent developments in this regard include the creation of the Ministry of Skills Development, Vocational and Technical Education and the Ministry of Tertiary Education and Training, and then the Ministry of Youth Affairs and Skills Development. While the establishment of a separate ministry is generally seen as a significant step forward in the development of TVET, the complete separation of TVET and higher education is a serious disadvantage. Close links between these two streams of education are desirable for improving the image of TVET, as well as providing lateral mobility between study programs for students.

In 1995, the Vocational Training Authority (VTA) was established through the Vocational Training Authority of Sri Lanka Act No. 12. This act is virtually a duplicate of TVE Act No. 20 of 1990, Part II, which established NAITA, and the powers and responsibilities of the two agencies are almost identical. The only specific function unique to NAITA is that of equivalency and validating local and foreign qualifications. Because the functions of the two agencies are almost identical, a certain amount of duplication is inevitable in the performance of their activities. However, although the TVE Act does not mention any division of responsibilities, VTA has identified its primary role as the provision of basic training to rural youth through a large network of small training centers; NAITA focuses mainly on apprenticeship training. Both institutions have agreed to avoid duplication of functions as far as possible. At the same time, the Manpower Division and the Foreman Training Institute, which had been in the Department of Labor, came under the purview of VTA. The large training centers of the Manpower Division were renamed as district vocational training centers (DVTCs) and the small centers as rural vocational training centers (RVTCs).

Also in 1995, the Sri Lanka Institute of Advanced Technical Education (SLIATE) was established by SLIATE Act No. 29. Currently functioning under the Ministry of Higher Education, SLIATE operates several advanced technical institutes (ATIs)—one in each of the nine provinces. The higher national diploma in engineering course is conducted at three of these ATIs, and the others conduct courses in languages and management, among others.

The formulation and implementation of the National Vocational Qualifications Framework (NVQF) in 2006 was yet another significant achievement. Until then, individual training

providers in both the public and private sectors had conducted training programs according to their own standards and curricula, conducted their own examinations and assessments, and issued their own certificates without any central control or regulation. An array of certificates and diplomas caused considerable confusion among prospective trainees and employers, who had no standards by which to evaluate the competences indicated in the certificates.

Despite its expansion over the years, institutional training has not yet become the dominant and industry-preferred mode of skill acquisition. A large majority of the population acquires skills by working in industry, and also through NAITA's formal apprenticeship scheme. Informal apprenticeship arrangements are also prevalent. In the past, acquisition of skills and trades were enabled mainly through informal apprenticeships and family occupations. However, formal training programs have developed with modern technology and the institutionalization of skills development, vocational training, and technical education. These developments are expected to make formal/institutional training more attractive to trainees and more acceptable to employers.

C. Organization and Management of Technical and Vocational Education and Training

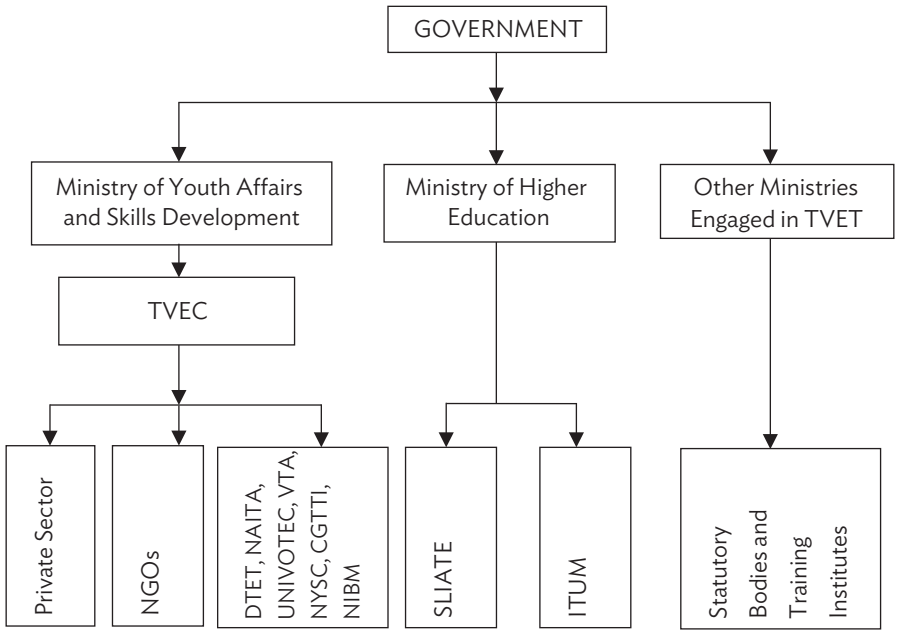
1. Public Sector Technical and Vocational Education and Training Providers

The Ministry of Youth Affairs and Skills Development (MYASD) functions as the key institution responsible for TVET. Under MYASD, TVEC functions as the apex body for TVET. At various times and under different administrations, MYASD has been known as the Ministry of Skills Development, Vocational and Technical Education and the Ministry of Tertiary Education and Training, among others, and its mix of responsibilities has varied slightly. Prior to the establishment of MYASD, public sector vocational training institutions functioned under several ministries. Although a few such institutions still operate under different ministries, most of the main TVET institutions now reside in MYASD. Besides MYASD, many other ministries and provincial councils undertake training as an associate function through the departments and corporations under them (Figure 2). For example, the Ministry of Labor Relations and Manpower and the Ministry of Rural Industries and Self-employment Promotion also provide training and retraining facilities for both employed and unemployed individuals. The Ministry of Rural Industries and Self-employment Promotion actively promotes technical and entrepreneurial skills through the Industrial Development Board.

a. Ministry of Youth Affairs and Skills Development

The primary tasks of MYASD include (i) providing quality vocational and technical education and skills development programs for school-leaving unemployed youth through

Figure 2: **Institutional Framework of the Technical and Vocational Education and Training Sector, 2011**



CGTTI = Ceylon–German Technical Training Institute, DTET = Department of Technical Education and Training, ITUM = Institute of Technology of the University of Moratuwa, NAITA = National Apprentice and Industrial Training Authority, NIBM = National Institute of Business Management, NGO = nongovernment organization, NYSC = National Youth Services Council, SLIATE = Sri Lanka Institute of Advance Technical Education, TVEC = Tertiary and Vocational Education Commission, TVET = technical and vocational education and training, UNIVOTEC = University of Vocational Technology, VTA = Vocational Training Authority.

Source: Author.

public, private, and NGO service providers; (ii) providing the NVQF to ensure quality; and (iii) ensuring optimal utilization of resources. Although MYASD has overall responsibility for the development and provision of vocational and technical training, it does not conduct any training programs by itself. Rather, it discharges such responsibilities through its training agencies (e.g., DTET, NAITA, VTA, and UNIVOTEC [formerly National Institute of Technical Education of Sri Lanka]).

Tertiary and Vocational Education Commission (Apex Body). TVEC has identified 21 public sector major TVET providers catering to the training needs of 26 industry sectors.[9] These are Ceylon–German Technical Training Institute (CGTTI), the Clothing

[9] Information Communication and Multimedia Technology; Finance Banking and Management; Personal and Community Development; Building and Construction; Medical and Health Science; Textiles and Garments; Hotels and Tourism; Electrical, Electronics, and Telecommunication; Metals and Light Engineering; Automobile Repair and Maintenance; Food Technology; Aviation and Aeronautics; Trainer Training; Human Resources Management; Languages; Art Design and Media (Visual and Performing); Refrigeration and Air Conditioning; Heavy Vehicles; Rubber and Plastics; Wood Related; Agricultural Plantations and Livestock; Marine and Nautical Science; Printing and Packaging; Gems and Jewelry; Leather and Footwear; Office Management.

Industry Training Institute, DTET, the Gem and Jewelry Research and Training Institute, the Institute for Construction Training and Development, NAITA, NITESL, NYSC, the Sirimavo Bandaranaike Institute of Tourism and Hotel Management, the Sri Lanka Export Development Board, the Sri Lanka Institute of Advanced Technical Education, the Sri Lanka Institute of Printing, the Sri Lanka National Design Center, the Institute of Printing and Graphics, VTA, the Sri Lanka Ports Authority, the Department of Agriculture, the Ministry of Health, NIBM, the Nursing School, and the Sri Lanka Television Training Institute.

TVEC's mandate includes coordination and the development of tertiary and vocational education. Amendments to the act that established TVEC granted additional powers for funding and research, and ensure that 10 of the 17 members of TVEC, including the chair, represent employer associations and private sector entrepreneurs.[10] Thus, TVEC provides a high-level forum for private contributions toward developing policies and programs that help achieve the government's vision of maintaining a demand-driven training system. TVEC's main functions include (i) policy formulation and planning of the TVET sector, (ii) implementation of a national quality assurance system, (iii) management development of TVET institutes, and (iv) establishment of links between education and training.

Managing TVEC is a Board of Management consisting of 17 members, one of whom serves as chair. *Ex officio* members include the chairs of NAITA and VTA and the directors general of TVET, DTET, and SLIATE. In addition, one member is from the Ministry of Finance, and another represents the trade unions. The minister in charge of MYASD appoints the remaining 10 members, of whom at least eight must be from chambers of commerce and industry. Appendix 5 illustrates the relationships between TVEC and public and private TVET institutions, the school education system, industry, and the labor market. TVEC was mandated with a wide range of powers to regulate the sector, including the requirement for all training providers to register themselves with TVEC and for the courses they offer to be accredited by TVEC. The registration process seeks to significantly improve the quality of training, particularly that provided by institutions in the private and NGO sectors. The registration process is outlined in Appendix 6.

Due to the wide diversity of training needs, different institutions have focused on different aspects of TVET. The establishment of TVEC in 1990 and the establishment of a separate ministry for TVET in 1994 led to an integrated approach toward the development of the TVET sector. In addition, the NVQF and legislation of TVET institutions have established certain policies. Similarly, the presidential task force (1997), "Mahinda Chintana I and II," and the government's 10-year plan have outlined some policies relating to TVET. However, the policy guidelines outlined in the various documents are not known to many TVET stakeholders. Furthermore, different sets of policies cannot effectively solve the highly complex issues in the TVET sector. Hence, there is a need for a single comprehensive policy document that covers all issues relevant to TVET sector development, particularly in the present context of a knowledge-based economy. The National Education Commission (NEC) 2010 emphasizes the need for creating a policy environment that simplifies development initiatives and effective implementation of TVET.

[10] Act No. 50 of 1999 - Tertiary and Vocational Education (Amendment) Act.

Department of Technical Education and Training. Established in 1964 by the Ministry of Education primarily to administer technical colleges, the Department of Technical Education and Training's (DTET) now operates under MYASD. Of the 37 technical colleges functioning nationwide, nine (one per province) were recently upgraded to colleges of technology (CoTs) and charged with conducting training courses for national vocational qualification (NVQ) levels 5 and 6. DTET conducts a wide variety of courses in various fields through its network of CoTs and technical colleges. These fields can be broadly divided into four categories: engineering technician, engineering craft, business studies, and general studies courses. The first three categories include full- and part-time courses, and general studies offers only full-time courses. It is expected that some of the engineering technician courses in the CoTs will be phased out with the introduction of NVQ levels 5 and 6 diploma programs. Many of the craft courses (e.g., those leading to the national certificate in engineering craft practice in technical colleges) have already been replaced by competency-based training courses leading to NVQ levels 3 and 4 certificates. (See Table 8 for NVQ Levels.)

DTET's director general reports to the secretary of MYASD and is assisted by a deputy director general and 12 directors, eight of whom oversee different functions at the head office and four serve as zonal directors for the four zones into which the technical colleges are grouped on a regional basis. A principal heads each technical college and CoTs are headed by directors.

DTET has a separate financial allocation from the Treasury. Hence, it enjoys a much greater degree of financial autonomy than other MYASD agencies.

National Apprentice and Industrial Training Authority. National Apprentice and Industrial Training Authority (NAITA) was established in 1991 as the successor to NAB. NAITA, which currently functions under MYASD, has also come under the purview of different ministries at various points in its history.

In addition to conducting the apprenticeship program, NAITA operates more than 50 provincial training centers and 3 national training institutes (so-called "flagship centers"): the Apprenticeship Training Institute in Katubedda, the Automobile Engineering Training Institute (AETI) in Orugodawatte, and the Technician Training Institute in Katunayaka, now known as the Institute of Engineering Technology (IET). In the TVET sector, NAITA is the lead agency for the development of competency standards and assessment materials; it is also responsible for NVQ assessments and maintains the register of assessors.

NAITA conducts several craft courses through IET and AETI. It also offers 4-year diploma courses leading to the national diploma in engineering sciences (NDES) through IET. Craft courses at IET and AETI are now competency-based, and trainees are presented for assessment at NVQ levels 3 and 4. Trainees who follow craft apprenticeship programs in industry are also presented for assessment at NVQ levels 3 and 4. IET conducts the NDES program of study, originally established as a special apprenticeship program. NDES has not yet been aligned with the NVQ system, but it is likely that it will be equated to NVQ level 6, so that students with the NDES will be eligible for exemption from the first year of the Bachelor of Technology program at the newly established UNIVOTEC.

Vocational Training Authority. VTA was established under the Ministry of Labor in 1995. At present, it functions under MYASD, focusing especially on providing rural vocational training through a network of more than 200 small rural training centers. It also operates four national vocational training institutes and 14 district vocational training centers, which are much larger and better equipped than the rural centers. VTA is managed by a board of management consisting of 12 members appointed by the minister in charge of vocational training. By appointment, two members serve as chair and vice-chair, assisted by a director general, five directors, five deputy directors, several assistant directors, training managers, etc.

The VTA conducts a large number of courses of varying duration through its network of centers. Most are craft courses, and some prepare trainees for NVQ assessment at levels 3 and 4. There are two computer courses and an industrial management course, which are described as diploma programs.

University of Vocational Technology. Opened in March 2009, UNIVOTEC was established by the University of Vocational Technology Act. No. 31 of 2008. It has absorbed the National Institute of Technical Education of Sri Lanka (NITESL) which was established in 1998 to perform teacher training and curriculum development for the TVET sector, and also to provide certificate and diploma training.

Initially managed by an interim council consisting of the vice-chancellor, the registrar (i.e., director general), and a director of the former NITESL, UNIVOTEC has three faculties. The first is the Faculty of Industrial Technology which will conduct courses in construction technology, manufacturing technology, and information and communication technology, leading to the degree of bachelor of technology. The second is Faculty of Training Technology which will continue to discharge the functions of the now defunct NITESL. It will also conduct the bachelor of education (technology) program and such other programs as the UNIVOTEC authorities may decide on periodically. The third is the Faculty of Vocational Technology. UNIVOTEC has the authority to conduct NVQ level 7 and other degree programs in vocational technology and teacher education.

National Institute of Business Management. With its growth and expansion from 1968 to 2010 in the business of training and development and its vision of becoming the best management education institute in Sri Lanka, National Institute of Business Management (NIBM) offers opportunities in management and information technology education. With the stability of being a government institute and the customer-driven philosophy of the private sector, NIBM offers well-recognized qualifications at a reasonable cost to both the employed and dropouts to obtain the knowledge and practical aspects needed for professional and personal development. NIBM is affiliated with five international universities and is expected to invest SLRs7.2 billion ($54.8 million) in a new building complex at Homagama.[11]

NIBM offers a Bachelor of Science in management information systems (MISs) in collaboration with the University of Ireland, a higher diploma in computer systems design, a diploma in computer systems design, and many certificate courses to cater to different

[11] Government of Sri Lanka, Ministry of Finance and Planning. Budget Speech, 2013. Colombo.

needs, and ensure courses for students who fail to gain entrance to public universities. In management and productivity, NIBM offers mature and employed students the opportunity to obtain well-recognized qualifications in diverse fields through 12 diploma programs conducted in the English and Sinhala languages. NIBM also caters to the specific needs of the industry through customized training programs and consultancy assignments. The main campus in Colombo and the regional centers in Kandy and Kurunegala ensure widely available quality training.

National Youth Services Council. National Youth Services Council (NYSC) was established in 1970 under the National Youth Services Council Act and currently provides training for the youth in rural areas.

Ceylon–German Technical Training Institute. Ceylon–German Technical Training Institute (CGTTI) is the leading institute in Sri Lanka for the training of skilled technicians in automobile engineering and allied trades. It was originally established in 1959 at the premises of the central workshops of the Transport Board of Sri Lanka at Werahera, a result of a 1958 agreement between the Governments of the Federal Republic of Germany and Sri Lanka to supply training assistance to the maintenance of the bus fleet that belonged to the Transport Board of Sri Lanka.

It was originally organized and managed by a German director and German staff until February 1976, when its management was handed over to a Sri Lankan director/principal and local staff. Although CGTTI now functions under MYASD, in the past, it has been under several ministries such as the Ministry of Skills Development, Vocational and Technical Education, Ministry of Skills Development and Public Enterprise Reforms.

National Human Resources Development Council. The council began as a corporate body in 1999. This was made possible through the provision of the National Human Resources Development Council of Sri Lanka Act No. 18 of 1997. Up to then, it functioned through an administrative arrangement by cabinet decision, first under the Ministry of Youth Affairs, and subsequently under the ministries of Science and Technology and Human Resources Development, Education and Cultural Affairs. At present, the Council falls within the purview of MYASD. The Council comprises 20 members, 15 of whom are appointed on an ex officio basis (i.e.,10 secretaries of relevant ministries and 5 heads of relevant institutions). The remaining five members are appointed on the basis of qualifications, experience, and capacity in related fields, with at least two coming from the private sector.

b. Ministry of Higher Education

About 21 ministries provided TVET services through their different departments and corporate bodies. These could be classified as public sector training providers essentially for their own employees. The two main TVET training providers outside MYASD are the Institute of Technology-University of Moratuwa (ITUM) and SLIATE. Both are under the Ministry of Higher Education.

Institute of Technology of the University of Moratuwa. ITUM was established in 2000 to conduct the national diploma in technology (NDT) course under the supervision of the

Council of the University of Moratuwa. The NDT began at the Ceylon Technical College, Maradana in the late 1940s, where it was known as the junior technical officers course. In 1960, this course was transferred to the newly established Institute of Practical Technology in Katubedda and Moratuwa. In 1967, the course was restructured and renamed as a technician course. When this Institute became a university in 1972, the course moved to the NDT. Students who pass the NDT have very good employment prospects and serve as the link between engineers and skilled workers. With further education and training, they can aspire to be engineers. Avenues are provided by the Institute of Engineers for this upward mobility. The NDT is a 3-year, full-time course comprising 2 years of academic work in the university and 1 year of industrial training.

Sri Lanka Institute of Advanced Technological Education. SLIATE is an institution of higher education and a statutory body operating under the Ministry of Higher Education. SLIATE was established by Parliament Act No. 29 of 1995, which focused on fostering advanced technical education in postsecondary institutions. Its head, the director general, is appointed by the cabinet. It is mandated to establish an advanced technical institute in every province for both engineering and business studies. At present, it manages and supervises 10 such institutes and seven sections housed in DTET technical colleges to conduct courses leading to national diplomas and higher national diplomas. Each institute has a director, and each section has an academic coordinator.

c. Public Sector Technical and Vocational Education and Training Providers Functioning under Other Ministries

In addition to the abovementioned institutions, a large number of TVET institutes function under ministries other than MYASD and Ministry of Higher Education, mainly to deliver training programs in areas of activity or for agencies under their purview.

Important institutes in this category include the following:

- Institute of Construction Training and Development (ICTAD)
- Farm Machinery Training Institute, Department of Agriculture
- Gem and Jewelry Research and Training Institute
- Ceylon Electricity Board Training Center
- Sri Lanka Telecom Training Centers
- Sri Lanka Railway Technical Training Center
- Sri Lanka Ports Authority–Mahapola Training Institute
- National Institute of Plantation Management
- National Institute of Health Sciences
- Clothing Industry Training Institute
- Institute of Printing and Graphics (INGRIN)
- Coconut Research Institute Training Center
- Sri Lanka Television Training Institute
- Sri Lanka Institute of Printing
- Sri Lanka Institute of Advanced Technical Education
- Ocean University of Sri Lanka (National Institute of Fisheries and Nautical Engineering [NIFNE])

Some centers run by ministries that are not responsible for TVET operate these centers mainly to train their own employees. On the other hand, some centers (e.g., SLIATE and NIFNE) are TVET providers and although not formally linked to the NVQ system, their programs should be aligned with the NVQ system and have NVQ levels. This alignment would facilitate feasible entry into higher-level courses in the NVQ system for persons who have already completed training programs.

2. Private Provision of Technical and Vocational Education and Training Services

Although enrollment and nationwide coverage of the TVET system is largely dependent on DTET, NAITA, VTA, NYSC, and UNIVOTEC, the Sri Lankan TVET system consists of a wide array of institutions including those from private and NGO sectors.

a. Courses Conducted by Private Sector Providers—Professional Associations

Among 42 professional member associations in the Organization of Professional Associations, 17 conduct certificate, diploma, or degree-equivalent courses. These private organizations provide professional education.[12] Linkage with these professional associations, both with those conducting courses of study and others that do not, would be an added advantage for industrial placements and final job placements. These institutions cover a wide range of subject areas for training, such as library science, information systems, computing, valuation, accounting and commerce, marketing, personnel management, and quantity surveying, etc.

b. Courses Conducted by Private Sector Providers—Other Private Sector Training Institutes

The Accredited Training Providers' (Private Sector) Association (ATPA), an association of private sector training institutes accredited by TVEC, is registered under the Companies Act No. 7 of 2007. Its members include institutes accredited for conducting NVQ-level training. ATPA aims to

- function as the representative body for the training institutions offering technical training under the national vocational qualification system to strengthen the process;
- foster unity and cooperation among training institutes and associations in the private sector and other related agencies;
- strive to uphold and continuously improve the quality of TVET in Sri Lanka by assisting organizations to achieve and exceed national and international standards;

[12] The Organization of Professional Associations members conducting courses are (1) Gemologists Association of Sri Lanka; (2) Institute of Chartered Accountants of Sri Lanka; (3) Sri Lanka Institute of Architects; (4) Sri Lanka Library Association; (5) Institute of Supply and Materials Management; (6) Chartered Institute of Management Accountants; (7) Pharmaceutical Society of Sri Lanka; (8) Institute of Chemistry, Ceylon; (9) Institute of Chartered Secretaries and Administrators; (10) Institute of Personnel Management Sri Lanka; (11) Computer Society of Sri Lanka; (12) Institute of Valuers of Sri Lanka; (13) Textile Institute Sri Lanka; (14) Institute of Chartered Shipbrokers, Sri Lanka; (15) Institute of Quantity Surveyors, Sri Lanka; (16) Sri Lanka Institute of Marketing; and (17) Institute of Engineers, Sri Lanka.

also, to assist providers of training obtain national and international recognition, thereby enhancing credibility and image;
- establish, maintain, and administer a fund to support training institutions;.
- assist in the formulation of national policies, lobbying with government and nongovernment agencies, and to safeguard the common interests of its members and TVET in Sri Lanka;
- ensure that students are provided quality service (instruction, training, career guidance, and counseling) by the trainers;
- strive to create a better social image for TVET and to undertake an awareness program such establishing information desks, organizing exhibitions, mounting awareness campaigns, etc.;
- create and sustain a culture of continuous improvement and innovation in compliance with good practices through monitoring current trends in TVET, market demand, sharing of experience, technology transfer, and partnering productivity improvement programs; and
- accommodate students from institutions that have been closed to continue studies in any of the other members institutions.

ATPA institutes and courses accredited by TVEC range from certificate to advanced diploma. The course programs offered cover a wide range of industry/trade subsectors: auto mechanics, air conditioning, welding, plumbing, house wiring, machinery, carpentry, refrigeration, information technology, hairstyling, beauticians, etc.[13]

c. Courses Conducted by NGO Providers

In addition, there is a widespread network of nonfee-levying institutions supported by national and international charities. These NGOs, both local and foreign, support TVET in various ways, such as by providing stipends, uniforms, meals, learning materials, etc. These are religious, social welfare, humanitarian, or community development organizations.

D. Technical and Vocational Education and Training System Performance

This section deals with the performance TVET system, with more details on key providers under MYASD due to insufficient information on the magnitude of training provided by other public, private, and NGO sector institutions.

TVET sector comprises both registered and unregistered service providers. In 2011, the total number of registered TVET providers was about 766: 44% of these were public, 45% private, and 11% NGOs (Table 4). However, in terms of total enrollment, public institutions accounted for 71%, private institutions 19%, and NGOs 10%. Unofficial estimates suggest that the number of nonpublic providers is around 1,500 institutes, implying that an additional 80,000 individuals are enrolled in TVET training per year. Hence, one should

[13] These institutions offer fee-based courses, and most are in the information technology sector.

Table 4: Registered Technical and Vocational Education and Training Institutions, 2011

	Institutes (no.)	%	Student Enrollment (no.)	%	NVQ Certificates issued (no.)	%
Public Sector	340	44.0	87,774	70.9	13,474	81.3
Private Sector	347	45.0	34,359	19.0	3,098[a]	18.7
NGO Sector	79	11.0	18,500	10.1		–
Total	**766**	**100.0**	**150,783**	**100.0**	**16,572**	**100.0**

NGO = nongovernment organization, NVQ = national vocational qualification.

[a] Covers both private and NGO institutes.

Source: Labor Market Information Unit, TVEC. (http://www.tvec.gov.lk/lmi/)

be cautious in interpreting the total student enrollment data. Of the total 16,572 NVQ certificates issued by TVEC, 81% was for the completers from public sector training institutions accounting for 13,474 certificates.

Table 5 shows enrollment in the TVET registered programs offered by private and nongovernment institutions in 2011. Computer and information technology, and finance and management courses account for about 50% of student enrollment. The overall completion rate is 59%, except for the computer and information technology, finance and management, office management, teacher training, and medical and health science fields, which have lower completion rates. Males account for about 57% of student enrollment and training graduates. About 90% of the programs offer certificates, and 8% offer diplomas; the remaining 2% cover short-term (i.e., less than 2 months) programs.

Figure 3 shows the performance of major public TVET providers in terms of enrollments from 2009 to 2011. It indicates an increase in demand for some of the major public TVET providers between 2010 and 2011 (i.e., VTA, NAITA, and DTET).

Most of the public training providers offer more full-time courses. In 2011, full-time courses accounted for about 77% of the total training provided by public TVET providers. The proportion of full-time and part-time programs varies across training providers. In the case of NAITA and NYSC, this was 100%, while it was 52% for DTET. For the most part, full-time programs refer to weekday courses, and part-time courses refer to fee-levying courses conducted during the weekend. Moreover, most full-time courses target new entrants to the labor market, and part-time courses target trainees who are already employed, whether full- or part-time.

Based on TVEC 2011 data on key training providers, a higher number of completers from DTET, NYSC, ICTAD, CGTTI, and SLIATE, compared with NAITA and NIBM (Table 6). The first four largest service providers account for more than 78% of training. Overall female participation in leading public TVET providers is around 43%.

Table 5: Enrollment in Private and Nongovernment Registered Technical and Vocational Education and Training Programs, 2011

	Recruited (no.)			Completed (no.)		
Field of Study	Male	Female	Total	Male	Female	Total
Information, Communication, and Multimedia Technology	8,699	9,707	18,406	5,517	6,101	11,618
Finance, Banking, and Management	3,606	4,361	7,967	243	230	473
Personal and Community Development	1,449	3,294	4,743	1,369	2,359	3,748
Building and Construction	3,570	133	3,703	3,098	74	3,172
Medical and Health Science	280	1,680	1,960	242	1,171	1,413
Hotels and Tourism	1,053	468	1,521	865	389	1,254
Electrical, Electronics, and Telecommunication	1,320	60	1,380	871	32	903
Metals and Light Engineering	1,188	15	1,203	916	11	927
Automobile Repair and Maintenance	1,112	7	1,119	673	26	699
Rubber and Plastics	543	0	543	543	0	543
Food Technology	417	382	799	372	407	779
Refrigeration and Air Conditioning	553	0	553	309	0	309
Heavy Vehicles	546	0	546	556	0	556
Others	4,401	4,015	8,146	3,012	2,650	5,642
Total	**28,737**	**24,122**	**52,589**	**18,586**	**13,450**	**32,036**
Percentage	**55**	**46**	**100**	**58**	**42**	**100**

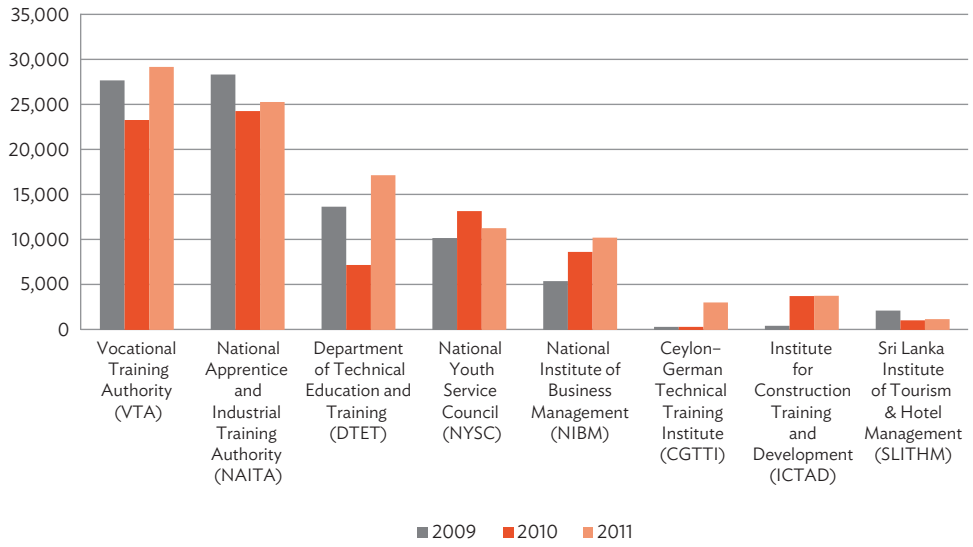
Note: Others include art and media, gems and jewelry, agriculture and livestock, office management, printing and packaging, art design and media, etc. Based on training performance data received from 469 institutions.

Source: Tertiary and Vocational Education Commission. 2011. Labour Market Information Bulletin, TVEC, Colombo.

Table 7 presents program-specific recruitment data relating to the top 10 programs offered by DTET. These programs accounted for more than 46% of its enrollment, with the highest enrollment reported in the National Certificate in Technology (Civil), National Certificate in Technology (Quality Surveying), and National Certificate in English for Commerce, Industry, and Further Education. Female participation in these programs was about 47.4%. The total enrollment in DTET in 2011 was 22,804 students—14,908 full-time (65%) and 7,896 part-time (35%). The overall completion rate as determined through DTET exams is about 50%. There is a heavy concentration of public TVET services in the Western, Southern, Eastern, and Central provinces, accounting for about 69% of training provided by these three institutions.

Government funding for the TVET sector has always been inadequate and it continues to compete for public funding, and the demand is very high from other social sectors (Figure 4). Unlike academic education, where the main input is knowledge, TVET requires substantial inputs of material, energy, machinery, and equipment (Figure 5). Hence,

Figure 3: Enrollment in Public Technical and Vocational Education and Training



Source: Tertiary and Vocational Education Commission. 2011. Labour Market Information Bulletin, TVEC, Colombo.

Table 6: Recruitment and Completions in Selected Public Institutions for Technical and Vocational Education and Training, 2011

	Recruited (no.)			Completed (no.)		
Institute	Male	Female	Total	Male	Female	Total
NAITA	12,482	12,873	25,355	3,745	3,872	7,617
VTA	18,532	10,719	29,251	15,873	8,925	24,798
NYSC	5,301	6,017	11,318	4,391	5,279	9,670
NIBM	5,580	4,680	10,260	1,189	1,178	2,367
DTET	10,245	6,965	17,210	6,573	5,322	11,895
SLIOP	584	249	833	318	142	460
SLITA	203	105	308	198	103	301
CGTTI	2,983	72	3,055	1,116	23	1,139
GJRTI	242	39	281	110	55	165
NDC	25	28	53	31	17	48
Total	**56,177**	**41,747**	**97,924**	**33,544**	**24,916**	**58,460**
Percentage	**57.4**	**42.6**	**100**	**57.4**	**42.6**	**100**

CGTTI = Ceylon–German Technical Training Institute, DTET = Department of Technical Education and Training, GJRTI = Gem and Jewelry Research and Training Institute, NAITA = National Apprentice and Industrial Training Authority, NDC = National Design Center, NIBM = National Institute of Business Management, NYSC = National Youth Services Council, SLITA = Sri Lanka Institute of Textile and Apparel, SLIOP = Sri Lanka Institute of Printing, TVET = technical and vocational education and training, VTA = Vocational Training Authority.

Source: Tertiary and Vocational Education Commission.

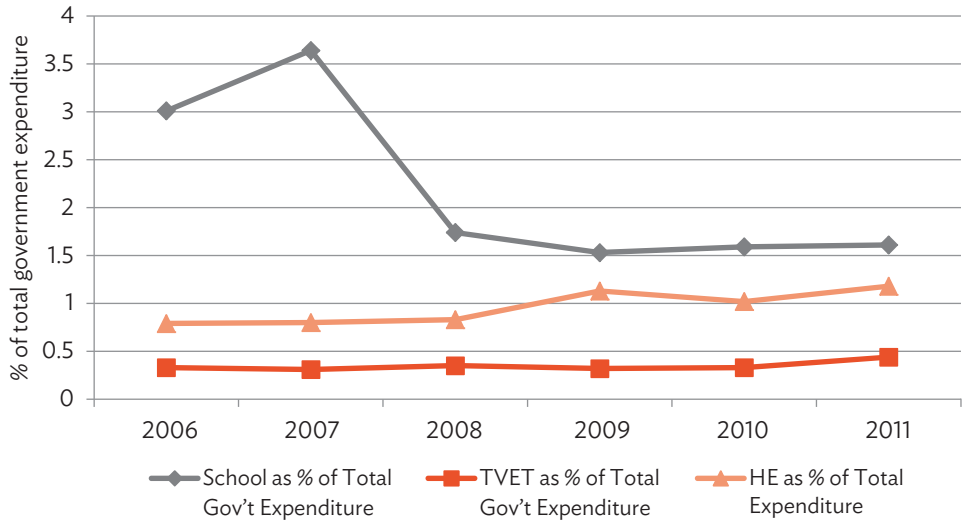
Table 7: Top 10 Recruitments by the Department of Technical Education and Training, 2011

Course	Male	Female	Total	Total %
NC in English for Commerce, Industry, and Further Education	515	1,296	1,811	17.1
NC in Technology (Civil)	1,157	307	1,464	13.8
NC in Technology (Quality Surveying)	919	374	1,293	12.2
NC in Engineering Draftmanship	736	446	1,182	11.1
Certificate for Computer Application Assistant	260	763	1,023	9.7
Certificate in Communication English	309	623	932	8.8
ICT Technician (NVQ)	246	657	903	8.5
NC for Accounting Technicians	273	537	810	7.6
NC in Technology (Electrical and Electronics)	661	11	672	6.3
NCECP Gas and Arc Welder	490	0	490	4.6
Total	**5,566**	**5,014**	**10,580**	**100**
%	**52.6**	**47.4**	**100**	

DTET = Department of Technical Education and Training, NC = National Certificate, NCECP = National Certificate in Engineering Craft Practice, NVQ = national vocational qualification.

Source: Department of Technical Education and Training.

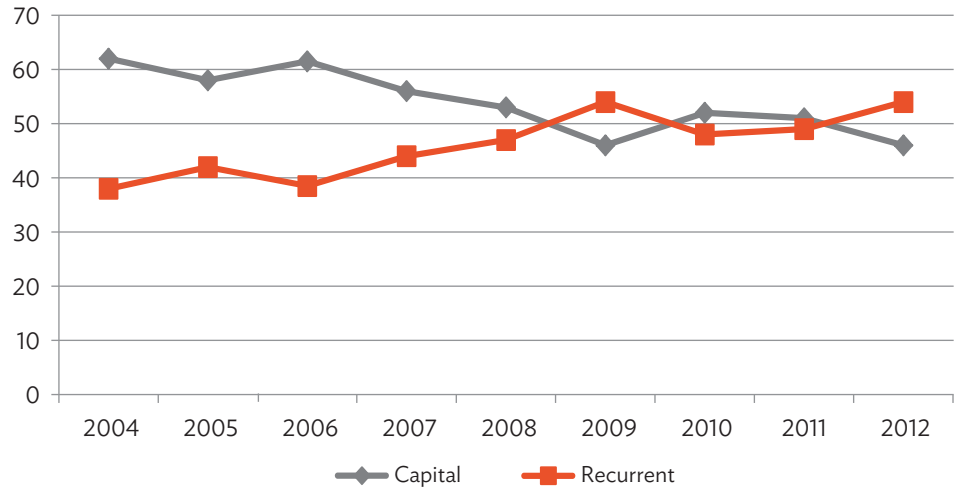
Figure 4: Public Expenditure on Education (%)



Gov't = government., HE = higher education, TVET = technical and vocation education and training.

Source: Ministry of Finance and Planning. 2011. Estimates of Public Expenditure, Department of National Planning, Colombo.

Figure 5: **Breakdown of Public Expenditure in Key Technical and Vocational Education and Training Providers** *(%)*



Source: Ministry of Finance and Planning.

external funding support is vital in meeting the expected targets of the TVET sector. External funding for TVET should focus on key areas such as

- consolidation of the established pathways in TVET;
- improving the newly established NVQF;
- strengthening the linkages among general education, higher education, and TVET;
- supporting the proposed GCE A-level technology stream;
- establishment of key bodies for quality assurance, accreditation, and career guidance;
- utilizing local expertise in areas where such expertise is available on an output basis;
- obtaining international expertise in specialized areas where local experts are not available; and
- coordinating with all other funding agencies to avoid duplication, promote rationalization, and seek international recognition for the TVET sector in Sri Lanka.

Public expenditure on TVET is about SLRs5.9 billion ($44.7 million) per year. Expenditure on TVET by the supervising ministry, MYASD, is about SLRs2.2 billion ($16.8 million) per year. The donor community has also provided significant financial support toward the development of TVET.

In summary, TVET in Sri Lanka has grown and expanded, with service providers functioning under MYASD as the supervising ministry. The establishment of TVEC in 1990 and the establishment of a separate ministry for TVET in 1994 (now known as MYASD since 2010) led to an integrated approach for development of TVET. In addition, policy reforms on TVET as well as legislative acts on institutional reforms have been introduced. Overall, TVET providers (public, private, and NGO sectors) enroll about 150,783 students per year, and the average completion rate is 59%. Computer and information technology, and finance and management courses account for about 50% of enrollment. About 77% of the total enrollment is in full-time programs.

CHAPTER 3

Policies, Plans, and Programs for Reform

This chapter deals with policy reforms, recent policy directions, and programs and projects in the development of technical and vocational education and training (TVET). The first policy reforms cover institutional and policy changes in the TVET sector since the 1990s. The second, more recent, policy directives present a brief account of policy statements by the present government on TVET sector development. The last section sets out salient features of donor agencies' participation in TVET.

A. Institutional Reforms in Technical and Vocational Education and Training

TVET system in Sri Lanka underwent rapid expansion without adequate national focus on quality and relevance. Policy initiatives to promote TVET activities in Sri Lanka date to the early 1970s. The high rate of youth unemployment and the 1971 youth insurrection prompted the government to consider TVET as an important strategic sector for reducing youth unemployment. TVET expansion continued alongside the promarket policy in the post-1977 period and led to several changes in the TVET sector. Private sector training was also recognized as part of a larger strategy to promote national competitiveness.

Since the 1990s, a concentrated effort has been made to coordinate TVET activities. This was marked by the establishment of the Tertiary and Vocational Education Commission (TVEC), the apex body for TVET in Sri Lanka, and by the establishment of MYASD. In 1995, a Presidential Task Force was appointed to make recommendations on the development of the TVET sector. Presented 3 years later, the Task Force's report focused on TVET policies under the broad topics of the role of government, involvement of the private sector in training, linkages between general education and TVET, and training for self-employment and the unorganized sector. The Skills Development Project that was implemented subsequent to this report introduced the following reforms to the TVET sector:

- establishment of a unified qualification framework based on national competency standards;
- conversion of TVET certificate courses into competency-based training;
- establishment of a network of career guidance centers and a learning resources development center with a network of learning resources utilization centers; and
- establishment of the Ministry of Skills Development, Vocational and Technical Education in 2004, and issuance of an executive order under the TVET Act for the implementation of the NVQ system.

Many significant changes have taken place in Sri Lankan TVET since enactment of four key legislation that established TVEC, the Vocational Training Authority (VTA), the Sri Lanka Institute of Advanced Technical Education (SLIATE), and the National Apprentice and Industrial Training Authority (NAITA). Previously, there were many duplicated functions and unclear demarcation of responsibilities on TVET among key departments and agencies working under various ministries. These agencies now operate under one ministry, and the overarching provisions of the National Vocational Qualifications Framework (NVQF) bring all TVET programs under one umbrella. Table 8 shows the levels of NVQ in Sri Lanka.

Table 8: **Seven Levels of National Vocational Qualifications in Sri Lanka**

Level No.	Generalized Description	Qualification
Level 1	recognizes the acquisition of entry level competencies	National Certificate
Level 2 Level 3 Level 4	recognize increasing levels of competencies; Level 4 qualification provides for full craftsmanship/ workmanship.	National Certificate
Level 5 Level 6	recognize the increasing levels of competencies of technicians including supervision and process management.	National Diploma
Level 7	recognizes the vocational/technological competencies at the Bachelor's level.	Bachelor's Degree

Source: Government of Sri Lanka, Ministry of Youth Affairs and Skills Development, Technical and Vocational Education Council (TVEC). 2009. *National Vocational Qualifications Framework of Sri Lanka (Operations Manual, October 2009)*. Colombo.

During the past 10 years, TVEC has developed vocational education and training plans for the key industry subsectors of the economy. The main objective of this initiative is to analyze demand for skills and rationalize training provision for the industries to receive skilled persons as required. Thus, Sri Lanka has developed vocational education and training plans for 17 industry subsectors, and disbursed grants totaling about SLRs100 million ($760,746) among training providers to implement activities. Presently, plans are being developed for the information and communication technology (ICT) and leather and footwear sectors, in association with the relevant trade promotion organizations.

TVEC has initiated steps to prepare vocational education and training plans for provinces, pursuant the Tertiary and Vocational Education Act No. 20 of 1990. TVEC developed a plan for Sabaragamuwa Province, in collaboration with the International Labour Organization (ILO) and the Sabaragamuwa Provincial Council. Presently, the provincial council, two district secretariats, public sector institutions, and private/public training providers jointly implement the plan in the province.

A vocational education and training plan is being developed for the Eastern Province. The government is keen on developing the Eastern Province, which lost development opportunities during the conflict that lasted from 1983 to 2009. The plan expects to rationalize the TVET sector in the province to provide skills for the youth as required by industry. TVEC expects to replicate the same exercise in the North, Western, and Southern provinces in the near future.

TVEC has also established sector policy and training advisory councils (SPTACs) for seven industry subsectors (construction, mechanical and production, ICT, hotel and restaurant, agriculture and plantation, handicrafts, and creative arts) with the view of seeking guidance from employers on skill requirements. In December 2009, the first round of consultations was held with an eminent group of employers, paying particular attention to the impact of industry trends and technology issues on TVET.

B. Recent Policy Directions

Five main documents define the policy directions for the TVET sector:

- *Mahinda Chinthana*: Vision for a New Sri Lanka—A Ten-Year Horizon Development Framework 2006–2016—Ministry of Finance and Planning (2006);
- *Mahinda Chinthana*: Vision for the Future 2010;[14]
- National Policy Framework on Higher Education and Technical and Vocational Education—National Education Commission (2010);
- Development Policy Framework 2011-2016 — National Planning Department, Ministry of Finance and Planning (2011); and
- Budget Speeches (2011, 2012, 2013)

1. *Mahinda Chinthana*: Vision for a New Sri Lanka—A Ten-Year Horizon Development Framework 2006–2016

The Ten-Year Development Framework (2006–2016) includes a chapter on education that identifies equity, quality, efficiency, and effectiveness as key issues needing attention throughout the sector. Regarding TVET, it identifies the following key issues that must be addressed:

- lack of focus on knowledge, skills, and attitudes to perform a particular occupation in a rapidly changing technical environment;
- absence of a mechanism to ensure the quality of trainee output against set standards;
- absence of a trustworthy qualification that reflects the trainee competence against a publicly known standard;
- internal and external inefficiencies including duplication of courses; outdated curricula and equipment; shortage of good trainers; as well as nonoptimal utilization of workshops, laboratories, and training equipment, leading to a high dropout rate (about 30%);
- lower social acceptance of TVET and hence, the inability to attract students for training courses;
- gender imbalances in enrollment;
- need for the diversification of providers and creation of an enabling environment for private sector investment;

[14] An economic and social development manifesto.

- inadequate coordination and linkages among public, private, and NGO stakeholders;
- lack of sufficient awareness of available opportunities;
- need for sustainability through cost recovery and other means; and
- weak linkages between TVET and general education on the one hand, and university education on the other.

The overall goal for the education policy articulated in *Mahinda Chinthana* is to transform the education system into one that will provide the technological skills required for rapid economic growth and national development by designing educational content and methods that promote the development of inquiring and adaptable minds.[15]

2. *Mahinda Chinthana*: Vision for the Future 2010

Mahinda Chinthana: Vision for the Future 2010 noted that more than 300,000 unskilled youth enter the job market annually after failing the GCE O/L examination or failing to gain access to university education. The Vision also emphasized that the education system should not be focused on the next 10 years but on the next century. Therefore, a higher technological and professional training institutions for acquiring new knowledge will be introduced. Courses offered by these institutions will target the high demand from the foreign employment market.

Both the first document (Development Framework) and second document (Vision) explicitly recognize and demonstrate that the government is keen to promote the TVET sector as a major skills development stream for youth entering the job market. It also recognizes foreign employment as a potential target market for TVET graduates.

3. National Policy Framework on Higher Education and Technical and Vocational Education

The National Education Commission (NEC) submitted the National Policy Framework on Higher Education and Technical and Vocational Education to the government in June 2010. Part 2 of this report covers TVET.[16] Part 3 deals with adopting good practices in the delivery of TVET, registration of training institutes, accreditation, national competency standards, career guidance, and counseling. NEC policy recommendations also provide detailed coverage of TVET sector issues, based on findings of six TVET working groups which examined the existing qualifications framework, existing legislation, training delivery and assessment, image, effectiveness, employability and career guidance, human resource policies, and economic and financial aspects. Most of its recommendations deal with three major issues relating to TVET sector development: (i) economic and financial aspects; (ii) image, effectiveness, and employability; and (iii) quality assurance.

[15] Government of Sri Lanka, Ministry of Finance and Planning. 2006. *Mahinda Chinthana: Vision for a New Sri Lanka—A Ten-Year Horizon Development Framework 2006-2016.* Colombo. p.144.

[16] Part 2 comprises five chapters: (i) Background; (ii) Economic and Financial Aspects; (iii) Image, Effectiveness, and Employability; (iv) Human Resource Development; and (v) Linking Different Educational and Vocational Qualifications.

4. Development Policy Framework

Prepared by the National Planning Department (NPD) in 2010, the Development Policy Framework of the Government of Sri Lanka also presents the government's policy direction for TVET sector development from 2011 to 2016, stating that "the government aims at an education system that will provide the competencies and technological skills required for rapid economic and social development of the people".[17] The policy directions given for 2011–2020 are based on the broad policy parameters of the *Mahinda Chinthana*. The education policy aims to create a knowledge-based society, with educational institutions producing a workforce possessing the required skills to face the emerging challenges in society and the needs of domestic and foreign labor markets through tertiary and vocational training.

In line with these policy directions, NPD wants to create a manpower reserve totaling 350,000 persons within 3 years (2011–2013) by expanding and reprioritizing existing programs and introducing new programs to ensure that rural youth acquire the necessary skills to secure highly paid jobs. Appendix 7 provides the NPD's activity and outcome matrix for the next 10 years. The matrix deals with seven major strategies: (i) improving quality; (ii) introducing demand-driven courses; (iii) introducing new programs for emerging economic sectors; (iv) developing national competency standards and national quality standards; (v) establishing links with industry; (vi) establishing prior learning assessment centers; and (vii) strengthening the online management information system (MIS) for the TVET sector.

The Development Policy Framework also spells out government policy toward private sector participation in TVET development, stating that "while maintaining a viable network of vocational training centers, government will aid diversification of providers and create an attractive environment for private sector investment in technical training to encourage enrollment. Private sector will be encouraged to take the lead in providing vocational training to satisfy their needs."[18] As such, the future policy direction for the TVET sector involves the active participation of both public and private sector providers in realizing national development targets.

Based on seven priority sectors,[19] NPD has identified priority areas for new courses, including (i) urban planning; (ii) internet marketing; (iii) telecommunications; (iv) ICT and software development; (v) transport management; (vi) naval and shipping; (vii) aviation engineering; (viii) food technology; (ix) international business management; (x) knowledge management; (xi) corporate governance; (xii) insurance and banking; (xiii) tourism, sports, and leisure; and (xiv) pollution reduction, waste disposal and management, and forest conservation.

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17 National Planning Department. 2011. *Development Policy Framework (2011–2016)*. p.113.

18 National Planning Department. 2011. *Development Policy Framework (2011–2016)*. p.134.

19 The priority sectors for national growth and development identified by the government include seven subsectors: (i) tourism; (ii) infrastructure; (iii) agriculture, fisheries, and dairy development; (iv) education and training; (v) ICT; (vi) business process outsourcing (BPO); and (vii) ports and aviation. Identification of these subsectors is based on the overall development strategy of the government, particularly in the context of postwar development programs.

5. Budget Speeches

Various budget speeches describe development priorities and allocation of funds for different ministries and elaborate policy focus. For example, the Budget Speech of 2011 referred to the medium-term strategies for human resource development in Sri Lanka. It underscored the provision of capital expenditure of SLRs54 billion ($411 million) for education and health and SLRs52 billion ($396 million) for recurrent expenditure on these two services, making the total expenditure on human resource development more than SLRs200 billion ($1.5 billion). This supports the government's commitment to position Sri Lanka as a knowledge economy and a healthy society. The speech further emphasized that everybody in the society must have equal access to education as the surest way of providing equality in economic growth. Young people should not leave the country or turn to other options because they cannot have better education, quality jobs, and secured living in their own country. Such facilities must be made available to everybody in Sri Lanka.

The Budget Speech of 2012 further elaborated the government's commitment to promote the TVET sector.[20] It underscored the following:

- All children should have access to skills development.
- Failing an examination (GCE) does not mean failing life.
- Children should be able to enter university or pursue skills development to ensure that they will get an opportunity to develop their skills.
- SLRs8.6 billion ($66 million) has been allocated for vocational education.
- Relevant institutions are expected to give priority to introduce standards and skills development programs through required reforms, to respond to emerging skills demands.
- To meet the emerging demands for local and overseas jobs, an allocation totaling SLRs500 million ($3.8 million) was proposed for special accelerated vocational education programs, prioritized in fields including tourism, information technology, construction, beauty care, etc., in districts with unemployment exceeding 8%.[21]

The budget speeches of 2012 and 2013 noted that foreign employment has become the country's highest foreign exchange earner. The Ministry of Foreign Employment Promotion and Welfare has extended a commendable service toward the promotion of foreign employment and related employment generation, having identified recipient countries that pay higher wages. Recognizing the high demand for jobs in the tourism, nursing, technical, and construction sectors, the government has proposed improving identified provincial hotel schools and technical colleges as special foreign employment training institutions for youths.[22] The provision of project- and enterprise-related management skills to those who

[20] The Budget Speech of 2012 noted that about 350,000 children enter schools each year, but only about 25,000 of those become eligible to enter universities. About 175,000 children enter vocational education provided by both the private and public sectors. This shows that about 140,000 children do not get an opportunity to improve their skills. It also noted that about 165,000 children fail the GCE O/L examination (paragraph 62). The Budget Speech of 2013 proposed to set up 20 technical colleges attached to vocational-technical university colleges. The budgetary allocation proposed for this purpose is SLRs1.2 billion or around $9 million.

[21] Government of Sri Lanka, Ministry of Finance and Planning. *Budget Speech 2011*. Colombo. Paragraph 63.

[22] Government of Sri Lanka, Ministry of Finance and Planning. *Budget Speech 2012*. Colombo. Paragraph 68.

are returning from foreign employment is also stressed in various budget speeches as very important to facilitate investment of their savings as capital to commence new businesses.

The government has adopted a sector-specific approach to promote growth considering labor absorptive capacity, export orientation, and inflow of foreign direct investment. Within the agriculture sector, promotion of value-added industry based on agricultural output (i.e., tea, rubber, coconut, and nontraditional agricultural crops) is emphasized for its potential for employment creation and foreign exchange earnings. The priority subsectors within manufacturing include gems and jewelry, textiles and garments, electrical and electronics industry, small and medium enterprises, light industries, high-tech industries, machinery assembly, and heavy industries. Within the services sector, the key priority subsectors include hotels, tourism and travel, ICT/business process outsourcing sector, health services, and promoting foreign employment. In addition, the government's Five Hub Strategy emphasizes the development potential of the commercial services, transport, storage and communication, and international banking and international investment subsectors. TVET investments in these sectors may lead to employment and income-generation opportunities for vulnerable and deprived groups, lessen educated youth unemployment, promote regional development, and reduce inequity and poverty.

C. Programs and Projects with External Funding

The NPD and TVEC established a task force to determine initiatives for TVET sector development, and to recommend strategies. The task force's estimate of labor market demand for TVET covers 29 skill categories (Appendix 8).

The estimated training requirements total 135,023 youth in 2011; 177,242 in 2015; and 207,284 in 2020. Accounting for more than 50% of training needs, the top four skill categories are (i) information technology professionals and associated skills; (ii) tourism (nonmanagement); (iii) metal and light engineering (craft-related); and (iv) construction (craft-related), accounting. The next four skill categories are (i) medical and health sciences (nurses); (ii) automobile and motor mechanic technicians; (iii) beauty culture (professional and other grades); and (iv) tourism (managerial). Taken together, these eight categories account for more than 80% of total training needs.

Until the end of the 1970s, Sri Lanka depended mostly on public funding for the expansion of education facilities. In the 1980s, investment in education declined as a percentage of GDP, and external assistance programs gradually became an important component of education sector investment.[23] Major donor agencies such as the World Bank, ADB, German development cooperation through German Organization for Technical Cooperation (GTZ), Department for International Development (DFID) of the United Kingdom, Japan Bank for International Cooperation (JBIC), Japan International Cooperation Agency (JICA), Swedish International Development Cooperation Agency (Sida), and United Nations Children's Fund (UNICEF) have emerged as key partners supporting education

[23] For more details, see Chandrasiri (2010c).

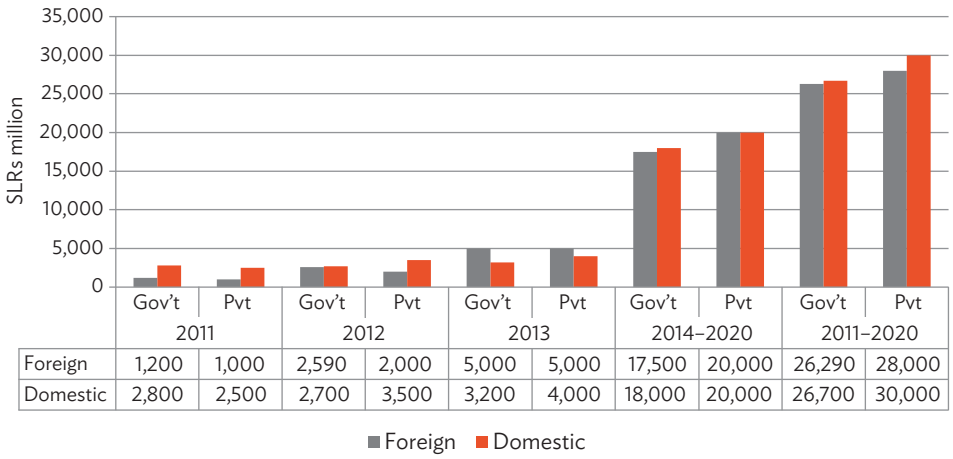
activities. These efforts have built long-term partnerships with the international community that widen access, improve retention and educational quality, and improve institutional management capacity of education in Sri Lanka.

TVET receives financial support through grants and loans from multilateral and bilateral sources. External contributions provide additional investments equivalent to about 54% of the total investments by the supervising ministries. (Appendix 9 details some of the projects.)

Additionally, the Government of Sri Lanka has already identified private and foreign funding as important sources of financing for the 10-year period (2011–2020) (Figure 6).

Considering the government's development targets for the next 10 years, the TVET sector can absorb private and foreign funds. TVET's experience with externally funded projects also indicates positive benefits to the economy. However, addressing issues on project phasing, delays, and contextualization is necessary to minimize constraints that affect external assistance.

Figure 6: Financing Vocational and Skills Development



	2011		2012		2013		2014–2020		2011–2020	
	Gov't	Pvt	Gov't	Pvt	Gov't	Pvt	Gov't	Pvt	Gov't	Pvt
Foreign	1,200	1,000	2,590	2,000	5,000	5,000	17,500	20,000	26,290	28,000
Domestic	2,800	2,500	2,700	3,500	3,200	4,000	18,000	20,000	26,700	30,000

Gov't = government, Pvt = private.
Source: National Planning Department.

CHAPTER 4

Analysis of the Technical and Vocational Education and Training System

Sri Lanka has made significant progress in technical and vocational education and training (TVET) over the past 3 decades, particularly regarding institutional and policy support, linkages with industry and the donor community, and establishing a National Vocational Qualifications Framework (NVQF) and labor market information system. However, issues remain including inadequate awareness of NVQF, lower completion rates, unsatisfactory implementation of strategic plans, insufficient financial allocation, and need for more meaningful industry participation. This chapter analyzes the TVET sector based on access and equity in skills development, economic relevance and quality of skills acquisition, organizational and management effectiveness, and costs, financing, and internal efficiency.

A. Access and Equity in Skills Development

According to TVEC, the average annual intake of trainees to public sector TVET is about 124,000 across 97 training programs offered by 20 public TVET institutions. About 40% of this intake target dropouts with GCE O/L qualifications, followed by 20% without GCE O/L, and 15% with GCE A/L. The rest are with educational attainment of less than GCE O/L. The highest poverty (44%) occurs in households whose members have studied up to grade 5 only, followed by households whose members have completed grades 5–10 (38%). Based on DCS data, among occupational groups, the highest poverty rates are recorded by elementary occupation groups (28%), followed by skilled agricultural and fishery workers (19%) and craft and related workers (15%). This evidence also highlights the need for introducing TVET programs targeting occupations that absorb individuals with low educational attainment. Moreover, Chapter 1 noted that of total employment, elementary occupations accounted for 18.9%, skilled agricultural and fishery workers (20.9%), and craft and related workers (17.6%). Thus, skills development would provide an effective strategy to help reduce poverty among households with less educational attainment and individuals working in elementary occupations. This could also be considered as a good strategy to train workers employed in the informal sector.

Of the total programs offered by public sector TVET institutions, about 91% offer certificates, 9% offer diplomas, and 1% offer degrees. The heavy concentration of public sector TVET programs occurs in the textiles and garments; electrical, electronics, and telecommunications; automobile repair and maintenance; building construction; computer and information technology; and metal and light engineering subsectors. Popular courses

are also within this industry groups plus finance and management; hotels and tourism; and wood-related programs. These courses target students aged 16–35 years who enroll in full- and part-time programs ranging from 2 days to 4 years.

DTET, NAITA, and VTA have nationwide networks of TVET facilities catering to the training needs of different target beneficiaries nationwide. Table 9 presents the enrollment and graduate output of key public TVET providers by province. Based on the data from the Department of Census and Statistics and TVEC, low enrollment can be observed in provinces with relatively higher poverty. Thus, policy makers and TVET providers must focus on addressing regional inequity. The Eastern, Southern, Central, Sabaragamuwa, and North Western provinces record a high rate of educated unemployment compared with other provinces. Moreover, Northern and Eastern provinces deserve special attention in promoting TVET activities alongside the government's postconflict development efforts. The development of human capital in these two provinces was seriously hampered by a secessionist conflict that lasted nearly 30 years.

Table 9: **Recruitment and Completion in Selected Public Technical and Vocational Education and Training Providers by Province, 2011**

	Enrolled (no.)			Completed (no.)		
Province	Male	Female	Total	Male	Female	Total
Western	18,815	8,169	26,975	13,274	5,870	19,144
Southern	6,031	7,236	13,267	5,234	5,444	10,678
Eastern	6,555	5,195	11,750	5,243	5,670	10,913
Central	4,816	4,061	8,828	4,242	2,974	7,216
Northern	3,504	2,430	5,934	1,805	1,085	2,890
Sabaragamuwa	3,656	2,042	5,698	2,484	1,397	3,881
North Western	2,556	2,890	5,446	1,754	2,039	3,793
Uva	2,784	2,425	5,209	1,672	1,311	2,983
North Central	2,201	2,466	4,667	1,338	1,537	2,875
Total	**50,918**	**36,914**	**87,774**	**37,046**	**27,327**	**64,373**

Source: Tertiary and Vocational Education Commission.

Insufficient data makes it difficult to conduct an assessment of TVET enrollment by income groups. However, some tracer studies identified financial and family problems, inadequate allowance, and transport difficulties as major causes of high dropout rates, possibly representing a constraint on TVET programs for poorer segments of society.[24] An earlier study by NAITA that examined factors leading to low enrollment and high dropout rates revealed that 97% of dropouts came from the rural sector, where the household income

[24] Both MG Consultants (2009) and EML Consultants (2009) studies.

of most dropouts (60%) is less than SLRs5,000 ($38) per month.[25] VTA also examined the issue of high dropout rates at rural vocational training centers (RVTCs) in Badulla and Hambantota districts.[26] The findings provided further evidence supporting that dropout rate is higher among those coming from low-income households. In fact, about 67% of dropouts made some contribution to their family income, and most parents (67%) worked in agriculture and related activities. Average family income was less than SLRs3,000 ($23) per month for about 23% of the families, and 60% were in the SLRs3,001–SLRs5,000 ($23–$38) per month income group. The government has provided financial assistance to low-income trainees for the past several years. For example, low-income trainees enrolled in some DTET programs receive SLRs100 ($0.76) per month. At DTET, annual allocation for such grants is about SLRs27 million ($205,401). NAITA and VTA also provide financial assistance to students from low-income households.

In 2009, another study involving national and regional institutes confirmed that the top reasons students left TVET programs are financial problems. Other reasons are family problems, health problems, cost of training, and taking up employment. In village institutes, the top reasons for dropping out include poor teaching facilities, difficulty of courses, society looking down on training courses, and courses not being related to jobs. The main reason DTET trainees dropped out was a need to work; for NAITA students, an inadequate allowance (Table 10). The VTA cited family problems as the major reason for dropping out (60%), compared to financial problems, inadequate allowances, and a need to work in other government and private sector institutions. Overall, the major reasons for leaving training problems are financial problems (16.5%), employment (15.9%), and inadequate allowance (12.7%).

Nongovernment sector providers contribute significantly in promoting regional equity in skills development in marginalized men and women at the periphery. For example, the World University Service of Canada (WUSC) has been actively engaged in peripheral vocational training activities to augment the socioeconomic conditions of marginalized under- and unemployed women and youth in the districts. Its training programs cover both traditional[27] and nontraditional trades[28]. Its target beneficiaries represent three regions: south, east, and north. Until March 2011, enrollment in nontraditional programs was 420, with a female representation of 19%. The employment rate among participants was 71% in males and 31% in females; average monthly wages were SLRs10,664 ($81) for male trainees and SLRs5,837 ($44) for female trainees. WUSC has also reported 61% employment, with an average wage of SLRs4,862 ($37) per month.[29]

As noted in Table 9, female participation in TVET in 2011 was 42%. However, this proportion varies 12%–100% from sector to sector. For example, female participation is 100% in teacher training, compared with 12% in electrical, electronics, and

[25] This 2005 study was based on a sample of 57 respondents—20 graduates and 37 dropouts. It was also based on interviews with 29 parents, 9 dropouts, 21 school teachers, and 20 NAITA inspectors. Time coverage was 1998–2004 and limited to Western Province.

[26] The study was based on a sample of 76 respondents representing 26 graduates, 30 dropouts, 16 instructors, and 4 executives. Time coverage was 2002 and limited to Badulla and Hambantota districts.

[27] For example, beauty culture, and textiles and garments.

[28] For example, automobile repair and maintenance, electrical, food technology, computer and information technology, electronics and telecommunication, leather and footwear, gems and jewelry, metals and light engineering, and wood-related works.

[29] Based on unpublished tracer study evidence compiled by World University Service of Canada (WUSC).

Table 10: **Reasons for Dropping Out of Training Courses, by Institute**

Reason for Dropping Out	DTET (%)	NAITA (%)	VTA (%)	Other Gov't. (%)	Private (%)	Total (no.)	Total (%)
Courses too difficult	3	2	9	0	3	72	2.6
Financial problems	13	17	7	20	20	451	16.5
Inadequate allowance given by Government or institute	11	24	5	14	14	348	12.7
Family problems	10	11	60	1	6	275	10.1
Difficulty in traveling to the training centers	12	7	3	11	9	278	10.2
To take up employment	20	7	2	18	13	435	15.9
Total *(%)*	**100**	**100**	**100**	**100**	**100**	**2,736**	**100**
Total (no.)	**1,093**	**122**	**173**	**635**	**713**		**2,736**
Total *(%)*	**39.9**	**4.4**	**6.3**	**23.2**	**26.1**		**100**

DTET = Department of Technical Education and Training, Gov't. = government, NAITA = National Apprentice and Industrial Training Authority, VTA = Vocational Training Authority.

Source: EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector*.

telecommunications, 73% in personal and community development, 69% in garments, and 56% in office management. Thus, although gender bias officially does not exist in TVET recruitment, gender stereotyping still exists to a marked degree. Female students who wish to undergo vocational training are encouraged to register for traditionally feminine courses (e.g., hairdressing, beauty culture, and stenography), and male students are expected to register for courses in welding, automobile technology, machining, etc. Only ICT has a reasonable gender balance (viz., 51% females). While there is no need to push females into traditional male occupations against their will, TVET must provide equal opportunity.

Another important area of concern is the lack of opportunity for persons disadvantaged through physical or mental disability, poverty, lack of basic education, etc., to find suitable training opportunities in occupations where their disabilities would not seriously affect their capacity to perform adequately. Although some NGOs and other social service organizations provide special training programs on an ad hoc basis, this issue needs sustained and systematic attention to empower disadvantaged groups to engage in gainful occupations and become productive members of society.

TVET in Sri Lanka is a comprehensive educational process beyond general education that help trainees achieve the knowledge, skills, attitudes, and mental preparedness necessary for a variety of vocations and jobs. Thus, it augments the earning capacity of individuals; and wide options of TVET programs offered for individuals with different levels of educational achievement has high potential for poverty reduction.[30] Existing data on postschool TVET suggest that investments in TVET ease school-to-work transitions and yield wage returns closely comparable to or greater than those from academic stream.

[30] Chandrasiri. 2009. *Linkages between Poverty Levels and Technical Education and Vocational Training: The Case of Sri Lanka*.

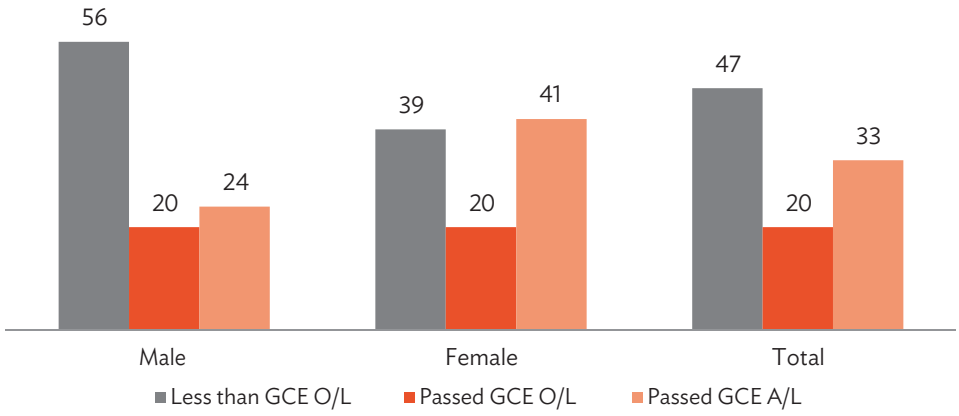
Schooling and training are complementary, and about 12% of the workforce receive post-school training. Recent entrants to the labor market are more likely to get training when compared with their older counterparts. Investments in both education and training yield relatively high returns in terms of earnings.[31]

B. Economic Relevance and Quality of Skills Acquisition

According to the 2011 Quarterly Labor Force Survey, 72% of the unemployed had no vocational training. Among males, 75% were unemployed compared with 70% of females. TVEC's data showed that 47% of them had qualifications below the general certificate of education—ordinary level (GCE O/L), and the rest were distributed between those with GCE O/L (20%) and GCE—advanced level (A/L) (33%) qualifications (Figure 7). Among the males, 56% had qualifications less than GCE O/L compared with the 39% of females. There are also more unemployed women without TVET who are GCE A/L passers.

The main issue with relevance of TVET is the employability of the graduates. In the absence of systematic data collection on employment rate of TVET graduates, tracer studies on various programs provide some insights. For example, in a 2005 tracer study of its diploma in computer science program graduates, the National Youth Services Council (NYSC) reported that about 22% of respondents remained unemployed after training, and 27% stated that training did not help them find a job. Among employed graduates, about 42% found jobs within 1 year and 17% had to wait 1–2 years. About 32% were employed in fields

Figure 7: **Educational Status of Unemployed Lacking Technical and Vocational Education and Training, 2011** *(%)*



GCE A/L = general certificate of education—advanced level, GCE O/L = general certificate of education—ordinary level.

Source: TVEC (2011).

[31] Tan and Chandrasiri. 2005. *Training and Labor Market Outcomes in Sri Lanka. World Bank Institute Working Paper. In Treasures of the Education System in Sri Lanka*. Washington, DC: World Bank.

other than the field of training, and more than 57% earn less than SLRs6,000 ($46) per month. Another study, conducted by NAITA in 2005, revealed that only 37% of respondent companies would consider hiring graduates from public TVET institutions when recruiting employees.[32] Given Sri Lanka's high proportion of private sector employment, public TVET providers need to pay special attention to the market relevance of their study programs. Low relevance is associated mainly with insufficient practical skills, low-quality programs, inadequate use of state-of-the-art technology, and inadequate industrial exposure. The study also reported that more than 85% of companies were reluctant to upgrade their employees' skills through public TVET institutes.

A related employer survey by MYASD (2008) revealed better acceptance of graduates from private versus public training institutes. Males were perceived to be highly productive in mechanical work, automotive mechanics, air conditioning, masonry, electrical, welding, and construction, and females were considered highly productive in accounts, management, and computer and clerical work. Both males and females were equally productive in woodwork, carpentry, and administrative and secretarial work. Another tracer study on employment MG Consultants (2009) revealed that 81% of TVET trainees worked for the government (19%) or in the private sector (53%), and 9% were self-employed (9%).[33] Ninety-four percent of the trainees had achieved NVQ level 3 or 4 certification, and the rest had basic skills (e.g., NVQ level 1 or 2). The study also revealed that 33% of the employees had admitted a mismatch between employer requirements and training skills provided by the technical training institutes. Further, employers considered more than 50% of the TVET graduates suitable in terms of practical knowledge. In addition, 29 of 33 (88%) employers emphasized that TVET graduates need on-the-job training before job confirmation.[34] Depending on the program, on-the-job training currently ranges between 2 days to 12 months. As viewed by employers, on-the-job training requires sufficient experience in workplaces that use new tools, machinery, and equipment. The survey also included employers' suggestions to training providers regarding performance gaps, and emphasized areas that need improvement. These include: the need for more practical knowledge within training; followed by teaching modern technology; training on attitude and behavior such as punctuality and teamwork; and basic mathematics, English, and science theory.

A study by Chandrasiri (2010b) showed that employability of graduates from Vocational Training Authority (VTA) was low relative to that of Department of Technical Education and Training (DTET) and National Apprentice and Industrial Training Authority (NAITA).[35] Work by Bandara et al. (2010) on the employability of technical college graduates who followed the national certificate of engineering craft practice courses on electronics, industrial electrician, fitter/mechanist, and gas and arc welder in technical colleges noted that 55% of graduates were employed full-time, 11% were employed on a part-time basis,

[32] The study by NAITA in 2005 was based on a sample of 200 companies representing micro- (37%), small- (28.5%), medium- (13.5%), and large- (21%) scale enterprises. By type of business it covered services, buying and selling, production and exporting, and production and selling organizations.

[33] This study was based on a sample of 33 employers, 65 employees, and 513 vocational passers. They represented five major fields of employment: automotive (24%), electrical (16%), mechanical (16%), office worker (15%), and building industry (29%).

[34] Initial appointment is on probationary basis.

[35] Chandrasiri. 2010b. *Effect of Training on Labor Market Outcomes. In R. Gunatilaka et al., eds. The Challenge of Youth Employment in Sri Lanka*. Washington, DC: World Bank. pp. 91–112.

and 34% were unemployed.[36] Sector-wise analysis of employment indicated that 47% were employed in the private sector, compared with 34% in government and 13% in semigovernment, 6% were unemployed. Most graduates (52%) earned SLRs5,000, 33% earned SLRs3,000–SLRs5,000, and 15% earned SLRs3,000 per month.[37] Most trainees (70%) considered work-related competency training to their jobs.

In general, TVET graduates have low employability and wide variations in employability across major public TVET providers. Outdated study programs, inadequate facilities (teaching aids), irrelevant industrial training, insufficient practical work, and inadequate interaction with industry affected the labor market outcome of training.[38]

In dealing with the economic relevance of TVET programs, due attention should be paid to the training needs of emerging high-growth sectors of the economy. Tourism relies wholly on the Sri Lanka Institute of Tourism and Hotel Management (SLITHM) for worker training.[39] The SLITHM Colombo School and its five satellite schools, which offer five types of programs, graduate 1,500 students biannually and its student enrollment increased to 2,142 in 2011 in response to high demand. About 71% of their students are at certificate and 24% at craft levels. Management diploma sources gets 2% and intermediate and advanced courses has 1% each of total enrollment. At the periphery level (districts far away from the capital, Colombo, such as Hambantota, Jaffna, Matlea, and Badulla), there is considerably growing interest in tourism courses. For craft-level courses, for example, the intakes at the Koggala (32%) and Rathnapura (29%) schools equal those at Colombo (39%). Enrollment for certificate courses is highest at Colombo (30%), but the schools at Koggala and Kandy are not too far behind (20% and 22%, respectively). National universities (e.g., Uva, Wellassa, and Sabaragamuwa) offer degree courses in tourism for about 30–40 students per year. Existing private providers also offer courses on tourism, but they lack regulation and standards.

Foreign employment accounts for about 24% of the total employment and ranks as the second highest foreign exchange earner. At present, training for foreign employment is conducted by both public (Sri Lanka Bureau of Foreign Employment [SLBFE]) and private institutes, which provide certificate courses that cover about 20% of departures for foreign employment per year. The SLBFE provided training for 35,603 workers through 1,752 programs while the private sector trained 6,307 through 201 programs in 2009.[40] The duration of such programs is 3–25 days. Training programs for employment in the Middle East (15 days) account for about 93% of all programs conducted by private providers and 88% of that offered by the Sri Lanka Bureau of Foreign Employment.

TVET providers have made satisfactory progress regarding economic relevance over the past 12 years. However, several areas still require immediate attention, including the provision of practical training, enhancing market relevance, financial support for low-income students, improving the learning environment, and providing career guidance.

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36 49% in fixed wages and 6% on a self-employment basis.

37 About $44 per month (in 2009, $1 = SLRs114.38).

38 Chandrasiri. 2010b. *Effect of Training on Labor Market Outcomes*. In R. Gunatilaka et al., eds. *The Challenge of Youth Employment in Sri Lanka*. Washington, DC: World Bank. pp. 91–112.

39 For details see, Mithpala. 2011. The impeding HR crisis in the tourism industry. *Financial Times*. 3 September.

40 Sri Lanka Bureau of Foreign Employment 2010.

This information is based on several tracer studies conducted by training providers and consultancy firms which somehow only present a fragmented picture of training outcomes of various TVET institutions and programs. Thus, there is a strong need for a systematic comprehensive assessment of the impact of TVET programs conducted by public, private, and nongovernment organization (NGO) providers.

The NVQF was introduced to improve the quality of skills acquisition and develop an internationally competitive workforce by establishing quality standards for skills required by industry. In consultation with industry, national vocational qualifications (NVQs) were set leading to national quality standards for teaching and assessment using a competency-based approach, and national certification of learners and workers. Over the past 6 years, TVEC has already established national competency standards for 40 trade sectors covering NVQ levels 1–4 and 18 trade sectors covering NVQ levels 5 and 6. For vocational training, the NVQ certificate opens a path to the national diploma, higher diploma, or degree qualifications, enabling trainees to plan their career paths. Tables 11 and 12 list achievements gained since implementation of the NVQF in 2005. However, tracer study evidence on NVQ levels 3 and 4 revealed an uneven distribution of study programs among technical training institutes. For example, the computer application assistant and the electrical technician courses are offered only at Kandy, the ICT course only at Rathnapura, and the aluminum fabrication course only at Kurunegala. Thus, rationalizing the study programs could improve the distribution pattern and reduce unnecessary duplication.

A VTA survey (2009) revealed that the learning environment in rural vocational training centers (RVTCs) is poor. The responses from the instructors also confirm inadequate resources (56%) and lack of technical facilities (25%) as major constraints faced by RVTCs. A DTET study on engineering craft courses emphasized the need to introduce modern training methodology and training of trainers as remedial measures to boost participation in training.[41]

Table 11: National Vocational Qualifications Framework Achievements, 2005–December 2010

Item	Achievements (no.)
National competency standards developed (levels 1–4)	106
National competency standards under preparation (levels 1– 4)	10
National competency standards developed (levels 5 and 6)	14
Courses accredited to award NVQ certificates	736
Assessors trained and registered to conduct NVQ assessments	983
NVQ certificates awarded	35,295
NVQ certificates awarded to recognize prior learning or RPL	5,033

NVQ = national vocational qualification, NVQF = National Vocational Qualifications Framework, RPL = recognition of prior learning.

Source: Tertiary and Vocational Education Commission.

[41] This study was based on a sample of 285 respondents: 7 technical school principals, 43 instructors, and 235 graduates of engineering craft courses.

Table 12: Total Number of National Vocational Qualification Certificates Issued by the Tertiary and Vocational Education Commission, 2010

Training Institute	Certificates Issued (no.)
NAITA	3,296 + 5,033 (RPL)
VTA	16,042
DTET	2,089
NYSC	1,702
Private	7,133
Total	**35,295**

DTET = Department of Technical Education and Training, NAITA = National Apprentice and Industrial Training Authority, NVQ = national vocational qualification, NYSC = National Youth Services Council, RPL = recognition of prior learning, VTA = Vocational Training Authority.

Source: Tertiary and Vocational Education Commission.

However, principals or heads of institutes perceive that existing facilities and learning-teaching resources available to conduct NVQ levels 3 and 4 courses at technical training institutes (TTIs) are satisfactory, and so are the competency-based teaching and learning based on printed material supplied by DTET. The principals/heads of institutes identified the resources needed to expand study programs as more classroom space, computers, books, and raw materials. The views expressed by 25 senior instructors attached to 13 TTIs on available facilities to conduct ongoing NVQ levels 3 and 4 study programs revealed satisfaction with the facilities, except for a few facilities such as equipment and tools at workshops, availability of audio visual equipment, availability of support staff, and in-plant training facilities.[42]

Table 13 shows the perceived current adequacy of training equipment: 66% of the total number of respondents stated that training equipment was modern and adequate, while

Table 13: Quality and Adequacy of Equipment for Training, by Institute

Quality and Adequacy of Equipment	DTET (%)	NAITA (%)	VTA (%)	Other Govt. (%)	Private (%)	Total (no.)	Total (%)
Modern and Adequate	60	76	67	33	72	148	66
Obsolete and of Little Practical Use	19	14	15	0	15	35	16
Don`t Know	21	10	18	67	13	40	18
Total (%)	**100**	**100**	**100**	**100**	**100**	**223**	**100**
Total (No.)	**63**	**21**	**66**	**6**	**67**	**223**	
Total (%)	**28.3**	**9.4**	**29.6**	**2.7**	**30.0**	**100.0**	**28.3**

DTET = Department of Technical Education and Training, NAITA = National Apprentice and Industrial Training Authority, VTA = Vocational Training Authority.

Source: EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector.*

[42] MG Consultants. 2009. *Tracer Study on Employment of Vocational Pass outs.*

16% said they were obsolete and of little practical use, and 18% said they could not assess the quality and adequacy of equipment.

Career guidance is another important component in improving the quality and employability of TVET graduates, especially for females. In a survey conducted among public and private training providers, about 59% of trainees identified career guidance as a necessary component of TVET (EML Consultants 2009). Presently, this is not well established within the TVET sector despite TVET providers' effort to strengthen career guidance services. The NEC policy document (2010) also identified the importance of career guidance to the TVET sector. Besides career guidance, the NEC document recommended establishing psychosocial counseling services within the TVET system to help students with difficulties related to their studies, examinations, and personal matters.

C. Organizational and Management Effectiveness

As described in Chapter 2, the TVET sector involves a plethora of institutions from the public, private, and NGO sectors. TVEC is the apex body for TVET functioning under MYASD. It is responsible for policy formulation, coordination, planning and development, occupational skill standards, testing and certification procedures, registration of training institutions, standard setting, and program accreditation.

Over the years, TVEC and its supervising ministry have organized national conferences on the TVET policy framework with full participation of all stakeholders. TVEC prepares a corporate plan with sector-specific goals and targets. Functioning under the supervising ministries and following broad guidelines from the Ministry of Finance and its supervising ministry, key providers of public TVET also prepare corporate plans for each institution.

However, overall coordination of all training providers is difficult due to the highly complex nature of the TVET sector and administrative situation in Sri Lanka. For example, interministerial involvement in TVET has led to the presence of autonomous bodies and departments within the TVET sector. The presence of many private training providers without enough government regulation has created an important and independent segment in the TVET sector. Earlier efforts to establish an "interministerial TVET committee" were unsuccessful, and the recommendations of the National Employment Policy (2006) for overall coordination of training were not implemented for political reasons.

TVEC's planning efforts have led to the overall coordination and rationalization of training activities in some industry subsectors and provinces. During the last 10 years, in consultation with various stakeholder groups, TVEC has been actively engaged in the preparation of vocational education and training plans for the growing industry sectors, with a view to rationalizing training as required by industry. This approach aims to reorient and coordinate public and private training efforts to provide skills required by youth and the industries. TVEC has widened its operations by developing vocational education and training plans for the subsectors and provinces. Industry has already prepared plans

for the following industry subsectors: textiles and garments, gems and jewelry, printing, construction, hotels and tourism, automobile repair and maintenance, office management, food and beverages, rubber and plastics, leather and footwear, plantations, electrical and electronics, metals and light engineering, hairdressing and beauty culture, and ceramics and glassware. Presently, plans are being developed for the ICT sector and the leather and footwear sector in collaboration with the relevant lead bodies.

In the provinces, vocational education and training plans have been developed for provincial council areas since 2008. For the first time, TVEC developed a provincial vocational education and training plan for Sabaragamuwa province, with technical and financial assistance from the International Labour Organization (ILO) and the Sabaragamuwa Provincial Council. Presently, this plan is undergoing joint implementation by the Provincial Council, two district secretariats, and other public sector institutions and private/public training providers. Additionally, a vocational education and training plan is being developed for the Eastern Province because it was identified as a priority region in the government's postconflict development agenda.

The vocational education and training plans also earmark financial assistance to private and NGO vocational training providers and to training providers in the public sector. The plan for private and NGO providers aims to strengthen their institutions by providing equipment and tools that will allow them to seek accreditation from TVEC in concurrence with the National Competency Standards. TVEC records show that, in 2009, SLRs1.64 million ($12,476) was disbursed among 10 training institutes for 12 courses covering NGO and private sector providers operating in different parts of the country. Regarding industry groups, it covered eight industry subsectors;[43] the highest allocations were made to the wood and related industry, printing industry, and electrical and electronics industry subsectors.[44] With respect to public sector providers, TVEC disbursed SLRs5.565 million ($42,336) among three institutes for 22 courses in 2009. Under the vocational education and training plan program, TVEC has disbursed SLRs100 million in grants among training providers to implement subsector-specific training programs over a period of 10 years. The major beneficiaries include the automobile repair and maintenance, electrical and electronics, and food and beverage industry subsectors.

Strategic planning is not a major concern of training institutions' directors and managers due to lack of autonomy and accountability, hence they also lack the skills. The MYASD, TVEC, and key public TVET providers prepare corporate plans with subsector-specific strategies, and most of the training provided by public institutions, both nationally and regionally, is implemented in line with these plans. MYASD is strictly guided by government financial and administrative regulation and is also accountable for the public funds released to public TVET providers. Consequently, the governing boards of TVET institutions, which are dominated by civil servants, tend to be more regulatory oriented than market driven. If the chair of the governing board is an administrative official, it is very likely that he or

[43] Automobile repair and maintenance industry, electrical and electronics, health industry (paramedics), printing industry, metals and light engineering industry, wood and related industry, textile ad garment industry, education industry.

[44] Automobile repair and maintenance industry, construction, electrical and electronics, information and communication technology, metals and light engineering industry, food and beverage industry, wood and related industry, and hotels and tourism.

she will be more concerned about administrative and financial rules and regulations than curriculum development and the labor market outcome of training. Thus, the institutional level lacks direction other than to become a semigovernment institution that responds to micromanagement by the supervising ministry and the government in power. Moreover, public TVET directors lack clear policy directives and authority to work directly with industry, even if the opportunity arises. Plan implementation in the institutions is also weakened by resource constraints.

The financial management of training institutes is highly centralized, and the directors have limited authority in financial matters for both recurrent and capital expenditures. Under the present system, governance is directly for the government, and institutions become supply oriented. In contrast, the industry-dominated sector may be more demand-driven and market-responsive. The financing of public TVET institutions is based on historical expenditure, regardless of innovative efforts and performance. The generated income of public training institutes must be returned to the national treasury, and hence the financial system does not encourage fee-earning activities.

Despite these constraints, the supervising ministry and TVEC have been able to provide policy support for the TVET sector. Efforts to ensure overall coordination have led to increased private sector participation in policy making and governance. For example, aiming to seek employers' guidance on skills requirements, TVEC has established sector policy and training advisory councils (SPTACs) for seven industry subsectors, including construction, mechanical and production, ICT, hotels and restaurants, agriculture and plantations, handicrafts, and creative arts.

Staff competency is yet another issue that affects the organizational and management effectiveness of the TVET sector. The public TVET system recruits instructors and teachers at different levels, depending on course level. Those who teach certificate courses must have at least diploma qualifications and relevant work experience from technological institutes. Those who teach diploma courses must have a degree or equivalent professional qualifications, and those who teach at the degree level must fulfill postgraduate qualifications. TVET teachers and instructors can obtain pedagogical training leading to a Bachelor of Education (tech) degree from the University of Vocational Technology (UNIVOTEC). About 79% of the teaching staff in major public TVET institutions had a 6-month technical certificate or a 2-year technical diploma.[45] Furthermore, the available facilities for technical teacher training are limited. Currently, only UNIVOTEC, which was established in 2008, provides pre-and post-service education for TVET teachers. However, it has very little capacity at present to fulfill TVET's staff development requirements. UNIVOTEC's degree programs are expected to address the issue of lack of qualified technical teachers and qualified teacher trainers. An analysis of the staffing pattern for the last 5 years indicates that filled positions averaged only 61%, likely due to a lack of interested and qualified applicants or difficulty in filling positions due to rigid government policies and procedures. For this reason, many visiting or part-time staff are hired by UNIVOTEC to augment the existing academic staff. This common practice adversely affects the quality of training delivery and learning outcomes.

[45] Tertiary and Vocational Education Commission. About 36% of the staff had no pedagogical training, and 50% had less than 3 weeks of teacher training. Only 13% of the training staff had undergone industrial training after joining the public service.

A significant weakness of the present TVET system is inadequate management information systems (MISs). On the supply side, information coverage is limited to public sector TVET providers; there is hardly any information on the operational activities of private and NGO sector providers. Although institutions collect a wide range of information on operational activities, the format and coverage vary from institution to institution. These database systems are not easily accessible, and there is no proper MIS that links between the supervising ministry and its line agencies.

Information coverage is better on the demand side due to the continuous efforts of TVEC's Labor Market Information Unit (LMIU), which biannually compiles and publishes both primary and secondary data on employment and unemployment. The primary sources include an analysis of job advertisements published in newspapers, and the secondary sources include information collected from several organizations (i.e., MYASD, TVEC, the Department of Census and Statistics, the Board of Investment, and the Foreign Employment Bureau). However, there is no systematic comprehensive survey of firm-level training. The absence of an integrated MIS encourages the government to continue with the existing regulatory-oriented system of management, rather than granting more autonomy to boards of management. Due to lack of adequate information, particularly on operational matters of the TVET institutions, boards of management are constrained to take independent decisions and they tend to refer issues and problems to the central ministries for advice and direction.

D. Costs, Financing, and Internal Efficiency

According to the Ministry of Finance and Planning 2009 data on public sector TVET expenditure, capital expenditure accounted for only 12.6% of the total expenditure, and personnel emoluments accounted for 64.2% of recurrent expenditures. The other 23.2% was spent for other recurrent expenditure, maintenance, services, supplies and traveling expenses. The estimated unit cost per student was SLRs36,793 ($279) based on total cost, and SLRs32,139 ($245) per student based on recurrent cost.

A 2009 study estimated the costs on the basis of the number of months of training provided and the number of trainees enrolled.[46] Table 14 shows a variation of monthly cost per trainee within a range of SLRs1,624 for village-level training to SLRs34,969 for other government institutes.

The same tracer study estimated the financial and economic costs per trainee. Financial costs include actual money spent on training (fees, books, materials, equipment, as well as food, rent, and other expenses during the training period), whereas economic costs include income forgone by students were employed before training. The economic and financial costs of training provide an estimate of how much the trainee spends on training.

[46] EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector.*

Table 14: **Training Cost and Revenue of Vocational Training Institutions**
(SLRs million)

Institute Category	Cost*	Revenue*	Net Income*	Total Operational Cost	Total Revenue	Balance
Public sector	12,499	885	–11,614	721.4	51.1	–670.3
Private sector	2,526	5,961	3,375	57.6	135.8	78.2
National	22,491	3,793	–18,698	360.6	60.8	–299.8
Regional	6,879	1,983	–4,896	410.6	118.4	292.2
Village institutes	1,624	1,608	–16	7.7	7.7	0
DTET	10,854	331	–10,523	363.7	11.1	–352.6
NAITA	9,326	580	–8,746	35.4	2.2	–33.2
VTA	2,019	874	–1,145	24.0	10.4	–13.6
Other government institutes	34,969	3,211	–31,758	298.4	27.4	–271.0
All institutes	9,676	2,321	–7,355	779.0	186.9	592.1

DTET = Department of Technical Education and Training, NAITA = National Apprentice and Industrial Training Authority, VTA = Vocational Training Authority.

* Per trainee/month.

Source: EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector*.

Trainees from other government institutions, including the Ceylon–German Technical Training Institute (CGTTI), incurred the highest financial costs, and DTET trainees incurred the lowest costs (Table 15). Private sector institutions operate at a profit, whereas public sector institutes incur heavy losses and depend heavily on government funds. In general, national institutes, NAITA, private sector, and other government institutes incur high financial costs, possibly because such institutes are more centralized and private providers charge higher fees. Low costs of village, regional, and DTET institutes could be due to government subsidies and lower cost of living outside Colombo. DTET trainees incur the highest economic costs, followed by regional and public sector institutes.

Table 16 shows the results of an economic cost–benefit analysis of TVET, which indicate an economic rate of return exceeding 42% for trainees across the entire TVET sector. The economic benefit–cost ratio ranges from 2.5 to 13.9. The private sector, NAITA, VTA, and village institutes show high rates of economic return (more than 50%). The very high returns of private sector institutes may be due to their high level of employment of trainees and high salaries drawn by private sector employees. The high returns to village institutes, VTA, and NAITA may be due to high employment rates and high incomes of village trainees. Overall, the analysis of internal efficiency reveals the financial viability of private sector providers compared with their public sector counterparts.

Another study examined the efficiency of government and nongovernment TVET provision based on a sample of 50 providers selected from both the public and private sectors in equal proportions, representing three districts (Colombo, Gampaha, and Kalutara) and the

Table 15: Financial and Economic Costs for Trainees

Category	Average Cost per Trainee per Month		Sample (no.)
	Financial Cost (SLRs/month)	Economic /Opportunity Cost (SLRs/month)	
All institutes	3,429	1,942	901
Public sector	3,050	2,126	688
Private sector	4,956	1,198	213
National	5,080	905	231
Regional	2,977	2,266	631
Village	2,990	1,574	39
DTET	2,677	2,740	395
NAITA	4,865	188	41
VTA	3,071	1,135	230
Other government institutes	6,478	1,805	22

DTET = Department of Technical Education and Training, NAITA = National Apprentice and Industrial Training Authority, VTA = Vocational Training Authority.

Source: EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector*.

Table 16: Economic Cost–Benefit Analysis of Technical and Vocational Education and Training

Category	Benefit–Cost Ratio	EIRR (%)
Government	2.9	25.8
National	8.3	37.7
Regional	3.2	40.8
Village	6.7	72.4
Private sector	13.5	124.0
VTA	6.6	58.3
DTET	2.5	34.5
NAITA	13.9	59.3
Other government institutes	3.3	19.3
All institutes (TVET Sector)	5.7	42.2

DTET = Department of Technical Education and Training, EIRR = Economic Internal Rate of Return, NAITA = National Apprentice and Industrial Training Authority, TVET = technical and vocational education and training, VTA = Vocational Training Authority.

Source: EML Consultants. 2009. *Quantification of Economic and Social Benefits Contributed by the TVET Sector*.

Western Province.[47] The study was based on 47 indicators identified under seven areas[48] of interest and 48 variables in each indicator.[49] The findings show significant variations in the overall efficiency among government institutions, ranging from 47% to 83%, compared with 42%–90% among nongovernment institutions.[50] Another key finding was the better financial performance by nongovernment sector providers, compared with government sector institutions. On the other hand, the government appears to perform better than nongovernment providers regarding management performance, service facilities, and trainees. The difference between highest and lowest performers in the nongovernment sector is much less, compared with their counterparts in the government sector (Table 17). Tables 18 and 19 provide data on efficiency variations of selected TVET institutions covering government and nongovernment sectors, respectively, showing inter-institutional variations in overall efficiency. Serious data limitations preclude a detailed analysis of the cost efficiency per TVET program.

Table 17: Technical and Vocational Education and Training Efficiency

Item	Government Sector		Nongovernment Sector	
	Highest Efficiency	Lowest Efficiency	Highest Efficiency	Lowest Efficiency
Trainees	93.7	88.2	86.3	76.2
Staff utilization	54.0	80.2	61.4	64.8
Training courses	55.8	41.6	76.4	71.3
Training facilities and utilization	97.8	52	86.1	65.0
Financial performance	97.7	11.1	170.8	62.2
Management performance	100.0	0.0	76.0	41.0
Service facilities	100.0	56.0	73.0	71.0

Source: INFOTECHS. 2009. *Study on Efficiency of Government and Non-governmental TVET Provisions*. Ministry of Vocational and Technical Training, Technical Education Development Project.

Overall, the analysis of internal efficiency reveals that private sector providers are more viable financially than their public sector counterparts. The high economic benefits of TVET justify further investment. However, these information need to be updated through further systematic and comprehensive study with refined methodology to improve validity and reliability.

While there is significant progress made by TVET providers over the past 3 decades in economic relevance, several areas still require immediate attention of policy makers. For example, while there is increased female participation, there is a need for improving

[47] INFOTECHS 2009. *Study on Efficiency of Government and Non-governmental TVET Provisions.*

[48] The seven areas of interest are (i) trainees, (ii) staff utilization, (iii) training courses, (iv) training facilities and utilization, (v) financial performance, (vi) performance management, and (vii) service facilities.

[49] For example, the first indicator, trainees, includes five subindicators: (a) availability of annual enrollment targets, (b) ratio of enrollments to available training places, (c) trainee pass rate, (d) trainee retention rate, and (e) extent of implementation of on-the job placement.

[50] It should be noted, however, that the analytical techniques used in the study on the efficiency of TVET providers are subjective, and did not use actual cost data.

Table 18: Technical and Vocational Education and Training Efficiency: Government Sector Providers

Item	Sri Lanka German Railway Technical Training Institute	Technical College, Gampaha	NYSC Dehiwala	VTI, Waturugama
Trainees	93.7	88.2	90.8	60.8
Staff utilization	54.0	80.2	65.9	43.0
Training courses	55.8	41.6	83.9	37.5
Training facilities and utilization	97.8	52.0	66.7	54.1
Financial performance	97.7	11.1	110.0	55.6
Management performance	100.0	0.0	89.0	36.0
Service facilities	100.0	56.0	72.0	43.0
Overall index of efficiency	82.7	47.0	82.6	47.1

NYSC = National Youth Services Council, TVET = technical and vocational education and training, VTI = vocational training institute.

Source: INFOTECHS. 2009. *Study on Efficiency of Government and Non-governmental TVET Provisions*. Ministry of Vocational and Technical Training, Technical Education Development Project.

Table 19: Technical and Vocational Education and Training Efficiency: Nongovernment Sector Providers

Item	Iqraa Technical Training	Aquinas College	Raytronics Computer Systems	La Sallian Community Education Services
Trainees	86.3	76.2	81.7	54.4
Staff utilization	61.4	64.8	63.4	58.2
Training courses	76.4	71.3	78.8	37.5
Training facilities and utilization	86.1	65.0	86.7	40.7
Financial performance	170.8	62.2	110.2	43.5
Management performance	76.0	41.0	84.0	19.0
Service facilities	73.0	71.0	98.0	42.0
Overall index of efficiency	90.0	64.5	86.1	42.2

Source: INFOTECHS. 2009. Study on Efficiency of Government and Non-governmental TVET Provisions. Ministry of Vocational and Technical Training, Technical Education Development Project.

regional equity in skills development. The assessment on organizational and management effectiveness indicated several achievements in policy and institutional support, but strategic planning, performance monitoring, and effective MIS are among the areas for improvement. Finally, the section on costs, financing, and internal efficiency indicated varied efficiency across training institutions operating in different sectors. An updated and reliable database system on operating costs and financing of TVET sector activities is needed to inform effective development planning and sound investment programming.

CHAPTER 5

Priorities and Strategies for Reform

Despite Sri Lanka's well-established technical and vocational education and training (TVET) system and a greater proportion of workers with secondary or tertiary education, the rate of increase in workers average productivity is only moderate. This implies that the educational system does not teach the skills needed by the labor market or poor-quality education and training resulting to job-skills mismatch. Educational attainment at the tertiary level does not engender high productivity. Hence, investments in tertiary education are yielding suboptimal returns. Recognizing this, the Government of Sri Lanka has developed medium- and long-term plans to provide the competencies and technological skills necessary for rapid economic and social development (NPD 2010).

In 2012, Sri Lanka's labor force was 8.5 million and unemployment rate was 4.0%, and the highest unemployment rate occurred among individuals with a general certificate of education—advanced level (GCE A/L) and above. Sri Lanka's labor market faces several challenges. First, unemployment among educated youth is higher despite the declining trend of overall unemployment. Second, most people (63%) work in the informal sector, engaged in tasks that do not fully utilize their ability. Third, about 1.9 million workers are employed abroad, and annual departures for foreign employment have reached about 146,000 persons. Fourth, Sri Lanka must find productive work for youths in the North and East regions at the end of 3 decades of secessionist conflict.

Although the private fee-based training institutes are also well established, the public sector continues to be the dominant player in providing TVET services. Nongovernment (NGO) institutions include many religious and voluntary organizations that offer craft training targeted at unemployed youth, rural women, school dropouts, and semiskilled or unskilled workers. The TVET sector enrolls more than 150,000 students every year, and operates through an island-wide training service network. About 90% of the programs offer certificates, and 8% offer diplomas; the remaining 2% cover short-term (i.e., less than 2 months) programs. Computer, information technology, and finance and management courses account for about TVEC 2003 of enrollment. Full-time programs account for 77% of the total enrollment. Public expenditure for TVET is about SLRs5.9 billion ($44.7 million) per year.

A. Priority Areas for Reform

TVET in Sri Lanka is a difficult sector to govern and manage due to its highly complex and multi-institutional nature, heterogeneity of clients, and constantly changing economic

environment. Successive governments have been reviewing and evaluating the TVET programs since about 1980, in response to demand and supply conditions of the labor market, structural changes of the national economy, and foreign competition. In the current open-market policy in the county, TVET has expanded both horizontally and vertically. In addition to state provision of TVET services, the non-state TVET sector has grown and expanded into many areas during the post-liberalization period. Major achievements of the TVET sector over the past 2 decades include

- creating an integrated supervising ministry and an apex body;
- establishing a system for national vocational qualification (NVQ);
- converting TVET courses into competency-based training;
- adopting procedures and criteria for registration/accreditation of non-state providers;
- establishing a college of technology in each province;
- establishing a university that offers degree programs in technology;
- developing vocational education and training plans for growing and important industry sectors;
- providing for industry consultations at the policy level;
- promoting private and NGO participation in TVET; and
- establishing a labor market information system.

Recent studies indicate a significant increase in the incidence of training for those with GCE—advanced level (A/L) and above qualifications. Regarding labor market outcomes, training reduces lengthy job searches and offers higher returns on formal certified training.[51] The analysis of external efficiency revealed that TVET graduates are moderately employable, although wide variations occur among major public providers. Female participation in TVET has increased. However, further improving access and equity will require increased regional equity in the delivery of TVET services. The assessment of organizational and management effectiveness reveals significant TVET achievements in the areas of policy formulation and institutional support. It also indicates several areas for further improvement, (i.e., strategic planning, performance-based funding, performance monitoring, capacity development, and institutional autonomy). Finally, the assessment of costs, financing, and efficiency indicates variations in unit costs and efficiency across different training providers, including duplication of programs by different agencies.

Despite several noteworthy milestones, TVET in Sri Lanka faces unresolved and emerging challenges. Key concerns include

- improving the quality and relevance of TVET programs to improve employability of graduates and increasing the accessibility, efficiency, and effectiveness of training delivery systems;
- professional preparation of teachers and inadequate participation by industries (users) in the design and delivery of TVET courses;
- inadequate quality assurance and quality control systems (there is a need to strengthen the NVQ system and promote full buy-in by the private sector);
- inadequate emphasis on training for individuals seeking foreign employment;

[51] Chandrasiri. 2010b. *Effect of Training on Labor Market Outcomes*. In R. Gunatilaka et al., eds. *The Challenge of Youth Employment in Sri Lanka*. Washington, DC: World Bank. pp. 91–112.

- inadequate policy support, particularly to promote private and NGO sector participation;
- organizational and managerial inefficiency; and
- further strengthen management information system (MIS), particularly on financing and costing.

Most of the government's recent policy documents emphasize the need for training new entrants to the labor market for both domestic and foreign markets. For example, the Road Map for the TVET Sector Development in Sri Lanka (2011–2020) has identified 29 new skill categories for training over the next 10 years.[52] Accordingly, the estimated numbers of people to be trained in the TVET sector for the years 2011, 2015, and 2020 are about 135,023; 177,242; and 207,284, respectively. Of the 29 skill categories, the top four—information technology professionals and associated skills, nonmanagerial tourism, craft-related metals and light engineering, and construction—account for more than 50% of training needs. Together with these, the next four categories (viz., medical and health science—nurses, automobile and motor mechanic technicians, beauty culture—professional and other grades, and tourism—managerial) account for more than 80% of total training needs.

Provision of public funds for the TVET sector has always been inadequate due to competitive financial demands from other social sectors. TVET requires substantial investment in instructional materials, machinery and equipment, as well as energy. Hence, funding from development partners, including the private sector, is vital in meeting TVET targets. Investment through external assistance and public–private partnerships should focus on

- consolidating established pathways in the TVET sector;
- improving the newly established National Vocational Qualifications Framework (NVQF);
- strengthening linkages between general education, higher education, and TVET;
- supporting the proposed GCE A/L technology stream;
- establishment of apex bodies for quality assurance, accreditation, and career guidance;
- obtaining international expertise in specialized areas that lack local experts; and
- coordination among funding agencies to avoid duplication, promote rationalization, and seek international recognition for the TVET sector in Sri Lanka.

The development proposals discussed in subsequent sections cover policy reforms of the National Education Commission (NEC) (2010), development strategies and targets established by the government and the National Planning Department (NPD), recommendations from the TVET Task Force (2011), and findings of this study. They also include technical and policy-oriented interventions targeted at different institutions in TVET.

[52] Tertiary and Vocational Education Commission (TVEC) and National Planning Department (NPD). Unpublished reports of the task force on priority sectors for TVET sector development, 2011.

In broader terms, the key areas of intervention that can be covered by an ongoing collaboration by the Government of Sri Lanka and its development partners, in TVET include

- enhancing the employability of TVET graduates,
- developing national competency standards and national quality standards,
- developing the capacity of TVET staff (both academic and nonacademic), and
- providing institutional and policy support.

This prioritization is based on major strategies identified by the government (NPD 2010) for TVET sector development. It also concurs with the existing development initiatives of TVET's aid community and recommendations by the TVET Task Force (2011). The TVET sector can absorb additional funding support and meet the government's development targets.

B. Specific Objectives and Strategies

This section lists proposals for specific strategies and step-by-step actions for each reform priority, which can be considered as objectives.

Objective 1—Enhance Employability of Technical and Vocational Education and Training Efficiency Graduates

Means 1—Promoting career guidance
- Step 1—Establish a career guidance network for the TVET sector
- Step 2—Establish units to provide psychosocial counseling
- Step 3—Provide training on career guidance to academic staff

Means 2—Strengthening TVET–industry linkages
- Step 1—Promote internships among undergraduate study programs
- Step 2—Encourage private sector involvement in curriculum development and teaching
- Step 3—Encourage TVET institutions to establish partnerships to conduct training programs catering directly to certain industries
- Step 4—Support private provision of TVET services through policy and financial support
- Step 5—Set up sector councils for industry interaction

Means 3—Improving the image of TVET courses
- Step 1—Build up image based on enhanced resources and staff
- Step 2—Build up image based on better services/courses
- Step 3—Build up image based on the resultant occupations
- Step 4—Build up image based on partnerships
- Step 5—Promote regional social marketing

Means 4—Enhancing employment opportunities for TVET qualified personnel
- Step 1—Design new demand-responsive TVET programs for those seeking foreign employment

Step 2—Design new TVET programs for those working in the informal sector
Step 3—Promote training-based entrepreneurship
Step 4—Promote self-employment development programs

Means 5—Improving learning environment
Step 1—Upgrade instructional equipment
Step 2—Upgrade infrastructure and facilities
Step 3—Introduce a student support system for the TVET sector
Step 4—Inculcate flexible, innovative, and modern teaching methodologies

Objective 2—Develop National Competency Standards and National Quality Standards

Means 1—Linking different educational and vocational qualifications
Step 1—Link technology and the world of work with general secondary education
Step 2—Extend the resources of the TVET sector to the school system through short-term programs on technology
Step 3—Provide a seamless pathway for school leavers who do not have direct entry into higher education
Step 4—Establish linkages with higher education institutions in the area of curriculum development
Step 5—Introduce a technology stream in senior secondary education

Means 2—Establishing a National Quality Assurance and Accreditation Council to cover all the areas of higher education and technical and vocational education
Step 1—Recognize institutions to conduct competency-based assessment for the award of NVQ
Step 2—Promote TVET providers to adopt good practices for efficient and effective delivery of training
Step 3—Make a quality management system the essential tool for maintenance and upkeep of course accreditation
Step 4—Establish an accreditation and quality assurance framework for all TVET institutions
Step 5—Enact legislation to bind all public, private, and NGO institutions providing TVET to a common qualification and development framework; this legislation may be called the "National Vocational Qualifications Act"

Objective 3—Develop Capacity of Technical and Vocational Education and Training Efficiency Staff

Means 1—Building the capacity of teaching staff
Step 1—Sponsor postgraduate programs for TVET teaching staff
Step 2—Strengthen international linkages for staff exchange
Step 3—Strengthen links with the higher education sector for staff development
Step 4—Establish a staff development center at the University of Vocational Technology (UNIVOTEC)

Means 2—Building the capacity of administrative staff
- Step 1—Provide medium-/long-term training for directors, managers, and other staff/executive category staff (on technical aspects such as new technological development and applications)
- Step 2—Provide short-term management training on productivity, public relations, and performance monitoring

Means 3—Strengthening human resource management of TVET institutes
- Step1—Develop staff through preservice training and in-service exposure to industry
- Step 2—Establish a transfer scheme in each training organizational network
- Step 3—Develop and implement a performance appraisal system
- Step 4—Develop and implement in each training institution an internal promotional scheme or career path

Objective 4—Strengthen Institutional and Policy Support[53]

Means 1—Establishing an efficient management information system (MIS)
- Step 1—Establish an MIS unit at TVEC
- Step 2—Establish institution-level MIS units
- Step 3—Develop an integrated MIS within the TVET sector

Means 2—Establishing an efficient labor market information system
- Step 1—Strengthen the existing Labor Market Information Unit (LMIU) at TVEC
- Step 2—Coordinate between the LMIU of TVEC and other LMIU providers
- Step 3—Undertake tracer studies or impact evaluation covering various study programs of the TVET sector

Means 3—Providing policy support for the sectors
- Step 1—Revise the TVET Act to reflect recent changes in the labor market and TVET system
- Step 2—Set up a policy unit or strengthen the existing planning unit at the Ministry of Youth Affairs and Skills Development (MYASD)
- Step 3—Provide policy support for nongovernment sector provision of TVET services
- Step 4—Develop a sector-wide TVET development framework

Means 4—Providing institutional support for the sectors
- Step 1—Establish an accreditation and quality assurance framework for all TVET institutions
- Step 2—Recognize institutions to conduct competency-based assessment for the award of NVQ
- Step 3—Make a quality management system the essential tool for the maintenance and upkeep of course accreditation
- Step 4—Develop national competency standards and assessment criteria for occupations based on labor market analysis
- Step 5—Establish links with the Sri Lanka Foreign Employment Bureau to provide training for those who seek foreign employment

[53] Some of the steps are reiterated under objective 4 due to its crosscutting nature.

C. Immediate Priority Investments

Table 20 identifies areas for priority investments in the short-term period.

Table 20: **Recommended Areas for Priority Interventions**

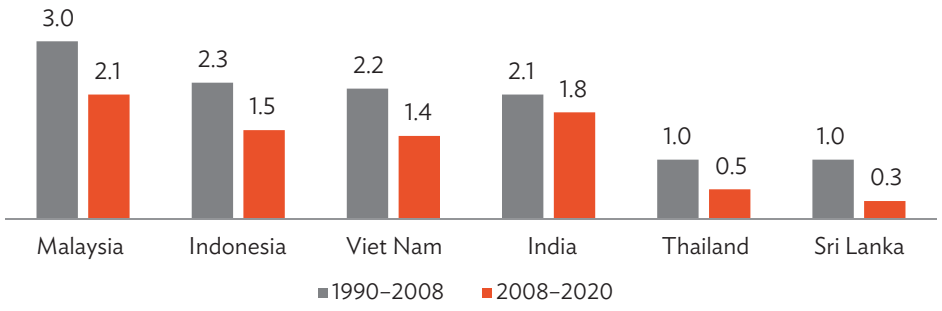
Objective	Means	Time Frame (years)
1. Enhance employability of TVET graduates	1. Promoting career guidance	1 and 2
	2. Strengthening TVET–industry linkages	1 and 2
	3. Improving the image of TVET courses	1
	4. Enhancing employment opportunities for TVET qualified personnel	1 and 2
	5. Improving learning environment	1 and 2
2. Develop national competency standards and national quality standards	1. Linking different educational and vocational qualifications	1
	2. Establishing a National Quality Assurance and Accreditation Council to cover all the areas of higher education and technical and vocational education	1
3. Capacity development of TVET staff	1. Developing the capacity of teaching staff	1, 2, and 3
	2. Developing the capacity of administrative staff	1, 2, and 3
	3. Strengthening human resource management of TVET institutes	1, 2, and 3
4. Strengthen institutional and policy support	1. Establishing an efficient MIS system	1
	2. Establishing an efficient labor market information system	1
	3. Providing policy support for the sectors	1
	4. Providing institutional support for the sectors	1
Overall Time Frame		3

MIS = management information system, TVET = technical and vocational education and training.
Source: Author's compilation.

APPENDIX 1

Sri Lanka's Labor and Employment

Figure A1.1: Labor Force Growth Rate, Selected Asian Countries

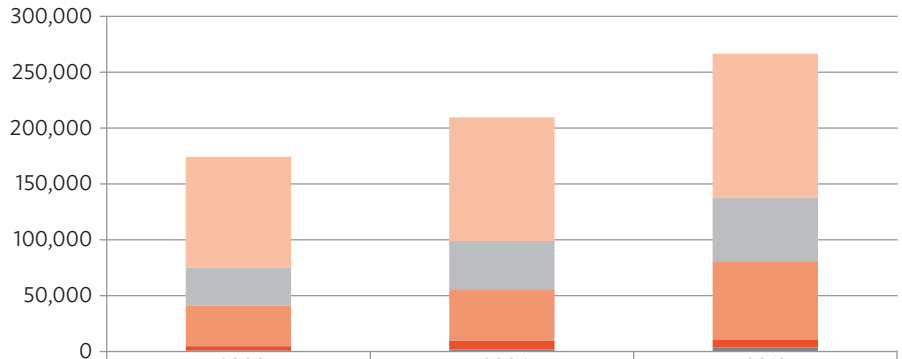


Source: Ministry of Labour Relations and Manpower.

Figure A1.2: Occupational Structure of Employment, 2002 and 2012

Source: Department of Census and Statistics.

Figure A1.3: Structural Changes of Foreign Employment in Sri Lanka (Annual Departure)



	2000	2004	2012
Housemaids	99,413	110,512	128,677
Unskilled	33,733	43,204	57,858
Skilled	36,475	45,926	69,249
Middle-level Executives	3,781	8,042	7,229
Professional	935	1,827	3,607

Source: Sri Lanka Bureau of Foreign Employment.

Table A1.1: Employment and Labor Force, 2000–2012

Year	Labor Force ('000)	Employed Persons ('000)	Foreign Employment ('000)	Foreign Employment as Percentage of Total Labor Force	Foreign Employment as Percentage of Total Employment
2000	6,827	6,310	853	12.49	13.52
2001	6,773	6,236	933	13.77	14.95
2002	7,145	6,519	970	13.58	14.88
2003	7,654	7,013	1,004	13.11	14.31
2004	8,061	7,394	1,069	13.26	14.45
2005	7,312	7,089	1,222	16.71	17.23
2006	7,599	7,105	1,448	19.05	20.38
2007	7,489	7,042	1,642	21.93	23.32
2008	8,082	7,648	1,792	22.18	23.44
2009	8,074	7,602	1,831	22.68	24.09
2010	8096	7696	1932	23.86	25.10
2011	8544	8186	1944	22.75	23.74
2012	8,465	8,129	1,957	23.12	24.07

Source: Central Bank Annual Report (various years).

Table A1.2: Unemployment Rate, 1990–2012
(%)

Education Level	1990	1995	2000	2006	2012
Total	15.9	12.3	7.6	6.5	4.0
Below GCE O/L	22.3	16.2	8.5	5.8	3.2
GCE O/L	23.9	18.4	11.3	9.9	6.0
GCE A/L and Above	29.4	20.0	14.9	11.6	7.5

A/L = advanced level, GCE = general certificate of education, O/L = ordinary level.

Source: Department of Census and Statistics. *Labour Force Survey Annual Report* (various years).

Table A1.3: Employed Persons by Employment Status
('000)

	Public		Private			Share (%)	
Year	Government	Semi-government	BOI	Others	Total Employment[a]	Public	Private
1990	649	703	104	1,520	5,047	21.5	33.7
1995	738	569	233	3,817	5,357	15.6	44.3
2004	542	418	233	3,042	7,394	13.0	46.4
2008	622	480	233	3,817	7,252	15.2	41.1
2012	993	251	304	3,024	7,936	15.1	41.3

BOI = Board of Investment.

[a]Includes own-account workers and unpaid family worker groups, besides those who work in public and private sector organizations.

Source: Department of Census and Statistics (DCS). *Labour Force Survey Annual Report* (various years) and Central Bank of Sri Lanka. *Annual Report - 2012*.

APPENDIX 2

Global Competitiveness Rank of Sri Lanka and Selected Asian Countries, 2012–2013

Table A2.1: **Global Competitiveness Ranking among 144 Countries**

Country	Overall	Institutional	Infrastructure	Macro Econ. Environment	Technological Readiness	Efficiency Enhancers
Malaysia	25	29	32	35	51	23
China, People's Rep. of	29	50	48	11	88	30
Thailand	38	77	46	27	84	47
Indonesia	50	72	78	25	85	58
India	59	70	84	99	96	39
Sri Lanka	68	49	62	127	89	77
Viet Nam	75	89	95	106	98	71
Bangladesh	118	127	134	100	125	107
Nepal	125	123	143	56	129	126

Source: World Economic Forum. 2013. *The Global Competitiveness Report 2012–2013*. Geneva.

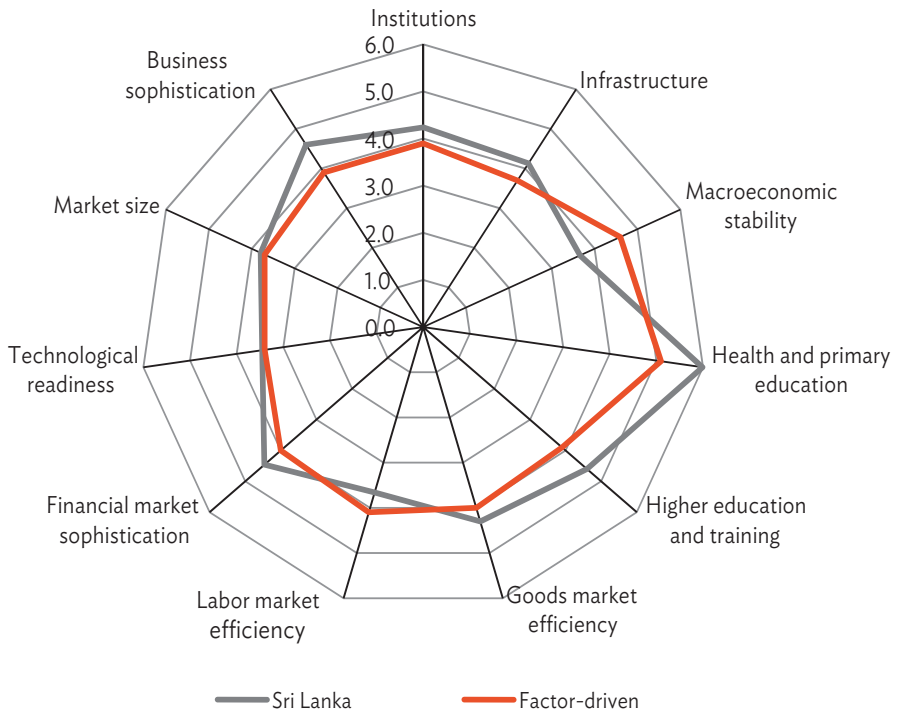
Table A2.2: **Competitiveness Ranking in Higher Education and Training among 144 Countries**

Country	Tertiary Enrollment	Secondary Enrollment	Quality of the Education System	Quality of Math and Science Education	Quality of Management Schools	Internet Access in Schools	Local Availability of Specialized Research and Training Services	Extent of Staff Training
Thailand	54	92	78	61	62	63	66	49
Malaysia	61	103	14	20	26	38	17	7
China, People's Rep. of	79	90	57	33	68	31	55	45
Indonesia	85	95	47	45	70	56	57	39
Viet Nam	87	94	72	58	125	41	126	116
India	95	107	34	30	33	75	59	54
Sri Lanka	100	78	33	69	38	105	63	80
Bangladesh	109	116	97	113	91	122	137	136
Nepal	122	121	92	95	113	104	129	132

Source: World Economic Forum. 2013. *The Global Competitiveness Report 2012–2013*. Geneva.

APPENDIX 3

Development Stage of Sri Lanka, 2012–2013



Source: World Economic Forum. 2013. *The Global Competitiveness Report 2012–2013*. Geneva.

APPENDIX 4

Structure of General Education from Primary to University Level

(a) National Education System

All public schools follow the National Curriculum. Schools are classified into five types:

1A, 1B	*Schools offering general certificate of education—advanced level (GCE A/L) classes.*
Type 1C	*Schools offering GCE A/L art and commerce classes.*
Type 2	*Schools offering classes up to year 11 general certificate of education—ordinary level (GCE O/L)*
Type 3 (i)	*Elementary schools offering classes up to year 8*
Type 3 (ii)	*Primary schools offering classes up to year 5*

Some schools in the nonpublic sector follow the National Curriculum:

Private Fee-Levying Schools

Schools that chose to remain private when the free education scheme was introduced. These schools began their activities during 1951–1960, with approval from the Department of Education. Because the Ministry of Education does not provide any financial assistance to these schools, they charge fees to cover expenses. Nevertheless, they are subject to supervision by the education authorities. These schools follow the National Curriculum, and some schools also prepare students for London O/L and A/L examinations.

Private Nonfee-Levying Schools

Schools that chose to remain private in 1960 when schools were taken over by the government. The state assists these schools by paying the salaries of teachers, and they pay facilities fees on the same basis as government schools. These schools are also subject to supervision by the education authorities.

(b) Preprimary Education

Only private individuals and institutions, local government authorities, and nongovernment organizations (NGOs) offer preprimary education. Preprimary schools generally cater to children aged 3–5 years.

Well-organized activities for early childhood development are evolving in the country. The most well-known are the preschools, which are primarily expected to prepare children 3–5 years old for schooling. Day care centers look after young children, from infants to toddlers, mainly to help working mothers. All these institutions are mostly run by NGOs and the private sector. Some preschools already seek to teach children how to write letters, count, and even calculate sums.

(c) Education of Children with Special Needs

The compulsory education regulations recognize the right of all children to education, including children with special needs. The 1997 Education Reforms drew attention to the need to provide these children with an education inside or outside the classroom. The reforms introduced a competency- and activity-based learning/teaching methodology and extended continuous assessment, creating a learning environment that is more conducive to meeting the needs of such children. The National Institute of Education conducts a special program for teachers and the Ministry of Social Welfare has developed a national policy for general education of children with special needs.

(d) Primary Education

Primary education (grades 1–5) lasts 5 years, after which students take a scholarship examination. Those who pass qualify for admission to popular schools and are granted monthly financial support until graduation from the university. Under the recent reforms, the curriculum was made competency-based rather than subject-based. The basic competencies mold a child to be competent in communication using words, numbers, and pictures in the areas of ethics and religion, environment, leisure, and learning.

(e) Secondary Education

(i) Junior Secondary

The junior secondary stage encompasses grades 6–9. Grade 6 is the bridge year between the primary and secondary levels. The common curriculum comprises nine subjects: first language, English, mathematics, science and technology, social studies, life skills, religion, aesthetics, and health and physical education. A second language (Tamil for Sinhala students and Sinhala for Tamil students) is taught when teachers are available. The teaching methodology emphasizes learning through projects and practical applications. The concepts of peace education, conflict resolution, human rights, and environmental conservation are integrated into the subject content in social studies and other relevant subjects.

(ii) Senior Secondary Education

Senior secondary (O/L) education lasts for 2 years (grades 10–11), after which students must pass the GCE O/L examination to qualify for senior secondary (GCE A/L) education, which lasts another 2 years until students are prepared for the GCE A/L examination. O/L education includes eight core subjects (religion, first language, English, mathematics, science and technology, social science and history, aesthetic studies, and technical subjects). Additionally, students are permitted to select three optional subjects (Sinhala or Tamil as a second language, history, geography, health and physical education, literature [Sinhala/Tamil/ English], and modern or classical languages).

Senior secondary (A/L) education lasts 2 years (grades 12–13), after which students take the GCE (A/L) examination, which is primarily a selection examination for university admission. Studies are usually in the biological science, physical science, arts, or commerce. Many reforms were introduced to this stage as well as to other early stages to find career paths for those who fail to gain admission to universities.

(f) University Education

Established in December 1978 under the Universities Act No. 16 of 1978, the University Grants Commission (UGC) is the apex body of Sri Lanka's university system. UGC plans and coordinates university education, allocates funds to higher education institutions (HEIs), maintains academic standards, regulates HEI administration, and regulates student admissions.

The university system operates within the framework established by the Universities Act, which assigned UGC the responsibility of selecting students for admission to undergraduate courses in universities. Accordingly, the UGC presently selects students for admission to undergraduate courses at 14 national universities and 4 institutes established by the Universities Act. In addition, special provisions have been made for the admission of a limited number of students with foreign qualifications to follow undergraduate courses of study leading to bachelor's degrees.

The UGC provides information on university admissions policy, courses of study, the number of places available in universities for each course of study, the subject combinations available in each university under different courses of study, and the minimum marks required for admission to various courses in each administrative district. More than 45 private HEIs offer university courses of study in foreign universities on a fee-levying basis.

(g) GCE – Advanced Level Technology Stream – introduced in June 2013

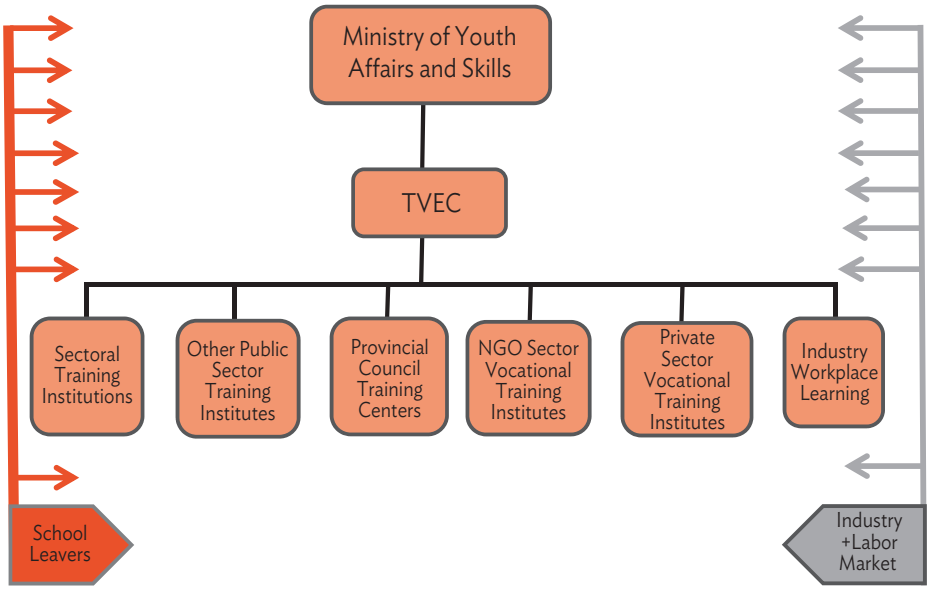
In formulating the policy proposals to conduct a GCE – Advanced Level Technology Stream, the following subject groups have been indicated:

Group A	Group B	Group C
• Mechanical Technology • Electrical, Electronics, and Information Technology • Civil Technology	• Food Technology • Agro Technology • Bioresources Technology	• Combined Mathematics • Physics • Chemistry • Biology • Information Technology • Accountancy • Economics • Agriculture • Geography
(i) Three subjects from Groups A and C, of which one is from Group A and two are from Group C. *NOTE: Students selecting Electrical, Electronics, and Information Technology from Group A should select any two subjects from Group C other than Information Technology.* (ii) Three subjects from Groups B and C, of which at least one is from each Group.		

Source: Government of Sri Lanka, Ministry of Finance and Planning, National Planning Department (NPD). 2010. *Sri Lanka, the Emerging Wonder of Asia, Mahinda Chintana Vision for the Future: The Development Policy Framework*. NPD, Colombo.

APPENDIX 5

Relationship between TVEC and Public/Private TVET Institutions



NGO = nongovernment organization, TVEC = Tertiary and Vocational Education Commission, TVET = technical and vocational education and training

Source: Tertiary and Vocational Education Commission (TVEC), 2009. *Strategic Plan for the TVET Sector*. TVEC Planning Division. Colombo. Unpublished document.

APPENDIX 6

Approval Process for New Technical and Vocational Education and Training Institutions and Programs

The registration process of the Tertiary and Vocational Education Commission (TVEC) involves a detailed application being submitted by the training provider seeking registration and a comprehensive inspection by TVEC of the facilities available, staff qualifications, course details, and the quality of training. Administratively, this is a responsibility of the Director—Standards and Accreditation, who reports to the director general of TVEC through the deputy director general. The specific steps to be followed in obtaining government approval for a new training institute or a new course program are spelled out below:

1. Issuing of application
2. Receiving of application, date stamping, assigning a file number, checking whether payment has been made, handing over the money order/check to the finance department, and handing over the application for data entry
3. Data entry and handing over to the program officer

   Desk evaluation is done by the program officer. If shortcomings are found, a request to fulfill the shortcomings is eased by sending the shortcoming letter
4. Prepare the file for physical evaluation
5. Select and appoint assessors, submit the file for physical evaluation
6. Conduct of physical evaluation by the assessor and submitting of evaluation reports to the program officer
7. Receive and review the report and submit for the deputy director and director's recommendation
8. Prepare payment vouchers for evaluators, get recommendations, and forward for approval
9. Prepare commission papers for recommended institutions and rejection letters for rejected institutions
10. Obtain approval for registration from the director general
11. Obtain Commission approval for registration/renewal of registration
12. Assign a registration number for the institute
13. Enter data for registration in the database
14. Prepare registration certificates/renewal of registration certificates
15. Obtain the director general's signature for the certificate and send the certificates to particular institutes
16. Gazetting and publishing of registered and renewed institutes in newspapers

The TVEC approval system is now less regulatory-oriented than before and has made a significant improvement in the quality of training, particularly in training institutes in the private and NGO sectors. The period to complete the entire approval process is expected to be about 12 weeks. However, the actual time needed for TVEC approval will depend on the completeness and accuracy of the required documents. The existing approval system has imposed some administrative controls but has completely deregulated scholastic affairs and certification of teachers and pupils (see table below).

Administrative Controls, Regulatory Measures, and Certification Procedures for TVEC Registration

Type of Regulation	Yes	No
Administrative controls		
Schools must be accredited by the government.	√	
Schools must comply with health and safety standards.	√	
Schools must comply with construction standards.	√	
The number of pupils is limited to the school's admission capacity.	√	
Schools must have a not-for-profit status.		√
Schools must submit financial balance sheets.	√	
A minimum level of investment is stipulated.		√
Regulation of scholastic affairs		
Schools must adhere to public sector programs.		√
The government sets the number of hours of instruction and school holidays.		√
The government sets the attainment level required for admission.		√
The government specifies the language of teaching.		√
Certification: regulations concerning teachers and pupils		
The government sets teachers' wages and qualifications.		√
The government sets procedures and criteria for hiring and firing of teachers.		√
Statements must be submitted to the government explaining the allocation of resources between teachers' compensation and other inputs.		√
The government controls tuition charges.		√
The government sets procedures and criteria for selecting students.		√

While it is a legal requirement that all public and private tertiary education institutes should be registered for operation, to validate respective programs of study, the accreditation process has to be pursued. There is a growing increase in private sector training institutes now offering training programs.

APPENDIX 7

Activity and Outcome Matrix for TVET in the Next 10 Years

Strategy	Period	Target/Outcome for2020
Improve the quality of technical and vocational education and training (TVET) programs through the provision of necessary infrastructure Upgrade the of facilities in existing vocational training centers- • Provision of classrooms, workshops, and other basic facilities • Upgrading equipment	2011–2020	• Increased capacity of technical and vocational education and training (TVET) institutions in the public sector • At least one college of technology will be operated in each province, expanding access to new demand-driven diplomas and higher diploma programs • Increased enrollment rate of public training institutions to 20% by 2013 and 30% by 2016
Introduce new demand-driven skills development programs	2011–2020	• Quality and relevance of training programs are improved • Improved entrepreneurial ability of trainees • Enhanced employability
Implement new programs to develop a skilled workforce satisfying the technical skills requirements for emerging economic sectors	2011–2013 and onward	• Trained manpower reserve of 300,000 suitable for highly paid jobs in a wide range of skills
Develop national competency standards and national quality standards for teaching and for the assessment of relevant training programs	2012 onward	• Uniformity in national standards of training institutions and training courses • Established national competency standards • All technical education and vocational training institutions adhere to the National Vocational Qualifications from Level 1 to Level 7
Implement an accelerated training program in collaboration with industry to produce qualified instructors for vocational training institutions	2011 onward	Strengthen capacities of existing training instructors in keeping with advancing technology and emerging labor market requirements
Establish assessment centers to provide proper qualification for the people who do not have formal vocational and technical training but seek assessment in line with the national vocational qualification system	2011–2013	Establish two prior learning assessment centers in Colombo and Galle
Strengthen the online management information system connecting all training institutions and industry partners	2011–2013	Better coordination among training institutions, industry partners, instructors, and trainees

Source: Government of Sri Lanka, Ministry of Finance and Planning, National Planning Department (NPD). 2010. *Sri Lanka, the Emerging Wonder of Asia, Mahinda Chintana Vision for the Future: The Development Policy Framework*. NPD, Colombo.

APPENDIX 8

Forecast Demand for Training by Skill Categories, 2011–2020

Skill Category	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Information Technology Professionals and Associated Skills-*	34,000	37,400	40,392	43,623	46,895	50,412	54,193	58,258	62,627	67,324
Tourism-Managerial Categories	4,200	4,956	5,848	6,901	8,143	7,736	5,802	4,351	3,481	3,133
Tourism Nonmanagerial Categories	16,100	23,500	30,200	32,600	35,000	34,000	32,544	41,692	32,104	35,254
Airport and Aviation Engineers/Technicians	252	472	612	262	287	315	345	378	415	455
Performing Arts-related Skills	1,000	1,890	2,214	2,596	3,047	3,580	4,208	4,949	5,824	6,856
Building and Construction—Professional Grades	975	1,050	1,100	1,100	1,100	1,150	1,150	1,150	1,200	1,200
Building and Construction—Technical Grades	4,740	4,740	4,740	4,740	4,740	4,740	4,740	4,740	4,740	4,740
Building and Construction—Craft-related Grades	17,576	17,576	17,576	17,576	17,001	16,696	16,696	16,696	16,696	16,696
Machine Operators and Mechanics	2,657	1,469	1,469	1,469	1,469	1,469	1,469	1,469	1,469	1,469
Automobile and Motor Mechanic Technicians	10,200	10,430	10,666	10,909	11,160	11,418	11,685	11,959	12,241	12,532
Environmental Managers and Engineers	350	375	400	400	400	400	450	450	450	450
Medical and Health Science—Nurses (Private sector)	2,300	2,784	3,374	4,095	4,974	6,046	6,500	7,000	7,200	7,500
Medical and Health Science—Other	425	480	550	600	620	773	964	1,202	1,500	1,873
Beauty Culture—Professionals	6,300	6,563	6,838	7,128	7,431	7,500	8,000	8,367	8,733	9,117
Beauty Culture—Other Grades*	2,695	2,695	2,695	2,696	2,696	2,696	2,696	2,697	2,697	2,697
Metals and Light Engineering—Managerial & Technical Grades*	3,580	3,660	3,743	3,829	3,917	3,281	4,079	4,174	4,273	4,374

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Appendix 8 Table *continued*

Skill Category	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Metals and Light Engineering—Craft-related Grades*	5,000	5,000	5,000	5,500	5,500	6,000	6,000	6,500	7,000	7,000
Middle-level Urban and Town Planners	100	150	150	200	200	200	200	200	200	200
Telecom Industry- Mobile repairers	2,000	400	480	576	691	829	995	1,194	1,433	1,720
Petroleum Industry-related Skills		20	20	20	10	10	10	10	10	10
Photography and Film Career-related Skills	1,500	1,563	1,628	1,697	1,769	1,845	1,925	2,009	2,097	2,189
Office Management	3,500	3,562	3,627	3,692	3,760	3,829	3,899	3,972	4,046	4,122
Textiles and Garments*	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863	6,863
Leather Products-Footware and other Manufacturers	660	675	690	706	722	739	756	774	792	811
Gem and Jewelry-related Skills	225	241	258	277	297	319	342	368	395	425
Rubber and Plastics Industry-related Skills	576	584	592	600	608	616	624	633	642	651
Fisheries Industry-related Skills	250	400	450	450	450	450	500	500	500	500
Agriculture and Livestock	7,000	7,350	7,644	7,568	7,492	7,417	7,343	7,269	7,197	7,125
Total	135,023	146,847	159,820	168,671	177,242	181,329	184,978	199,823	196,823	207,284

* Adjusted figures based on more recent data.

Source: Tertiary and Vocational Educational Education Commission (TVEC) and National Planning Department (NPD). Unpublished reports of the task force on priority sectors for TVET sector development, 2011.

APPENDIX 9

External Assistance to Education Sector and TVET Subsector

Completed Projects (1982–2003)

Source	Loan/Year of Grant	Approval
A. Asian Development Bank		
1. Loans		
a. Technical Education Project	Loan	1982
b. Second Technical Education Project	Loan	1988
c. Financial Management Training	Loan	1993
d. Secondary Education Development Project	Loan	1993
e. Science and Technology Personnel	Loan	1997
f. Skills Development Project	Loan	1999
g. Secondary Education Modernization Project	Loan	2000
h. Distance Education Modernization Project		2003
2. Technical Assistance		
a. Scientific and Technical Personnel Development	Grant	1995
b. Study on Financing of Social Services	Grant	1995
c. Resource Rationalization Action Plan under the Department of Technical Education and Training	Grant	1996
d. Skills Development Project	Grant	1998
e. Improving Education Planning	Grant	1998
f. Capacity Building for the Ministry of Vocational Training and Rural Industries Project Implementation Management	Grant	1999
g. Secondary Education Modernization Project	Grant	1999
h. Postsecondary Education Modernization Project	Grant	2000
i. Secondary Education Modernization Project	Grant	2003
j. Community Information Services for the Poor	Grant	2003
k. Human Resource Investment Project	Grant	2003
B. Other External Sources		
1. Bilateral		
a. Sweden: Implementation of Administrative Procedures System in Support of NORAD with Software	Grant	1990
b. Australia	Grant	1996
c. Republic of Korea: Upgrading Engineering Equipment of University of Peradeniya	Grant	1996

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Appendix 9 Table *continued*

Source	Loan/Year of Grant	Approval
d. Canada		
CIDA: Project for Rehabilitation through Educational Training (PRET)–NAITA, VTA, Ministry of Labor and Vocational Training		
(i) Phase I	Grant	1989
(ii) Phase II	Grant	1992
(iii) Phase III	Grant	1997
(iv) Phase IV	Grant	2003
e. Sweden: Support for Bachelor of Information Technology Degree at the Institute of Computer Technology, University of Colombo	Grant	1998
f. Government of Japan	Grant	1998
g. Government of United Kingdom	Grant	1998
h. Government of Germany	Grant	1998
i. Government of Japan	Grant	1999
j. Norway		
NORAD: Design of Administrative Procedures for Universities	Grant	2000
k. JICA Project for Improvement of Junior Schools, Phase I	Grant	2000
l. Basic Education Sector Program (GTZ)	Grant	2001
m. JICA Project for Improvement of Junior Schools, Phase II	Grant	2001
n. Education Plan for Development of Mathematics and Science in Primary and Secondary Schools (JICA)	Grant	2003
o. Japan Bank for International Cooperation (JBIC) Small-Scale Infrastructure Rehabilitation and Upgrading Project II (for education subprojects)	Loan	2003
2. Multilateral		
a. ILO: Support for JobsNet at Ministry of Labor	Grant	2002
b. World Bank–ODA		
(i) General Education Project	Loan	1989
(ii) Teacher Education and Teacher Development	Loan	1996
(iii) Second General Education Project	Loan	1997
(iv) Distance Learning Project	Loan	2001
(v) Improving Relevance and Quality of Undergraduate Education	Loan	2003

CIDA = Canadian International Development Agency, GTZ = Deutsche Gesellschaft für Technische Zusammenarbeit (German Agency for Technical Cooperation), ILO = International Labour Organization, JBIC = Japan Bank for International Cooperation, JICA = Japan International Cooperation Agency, NAITA = National Apprentice and Industrial Training Authority, NORAD = Norwegian Agency for Development Cooperation, ODA = Overseas Development Administration, PRET = Project for Rehabilitation through Educational Training, VTA = Vocational Training Authority.

Source: ADB. 2005. *Final Report on Human Resource Investment Project in the Democratic Socialist Republic of Sri Lanka.* Manila.

Ongoing Externally Funded Projects as of 2009
(SLRs million)

Name of Project	Source	Total
Technical Education Development Project	ADB	650
Upgrading Niyagama Technical College	EDCF/Rep. of Korea	390
Setting up of Facilities at Rural Vocational Training Center, Puttalam	India	35
Rehabilitation, Reconstruction, and Modernization of Vocational Training Institute	Germany	75
Employment-Oriented Training for Youth	Norway	50
Total SLRs million		1,200

ADB = Asian Development Bank, EDCF = Education Development Cooperation Fund, SLR = Sri Lanka Rupee or Sri Lankan Rupee.

Source: Government of Sri Lanka, Ministry of Finance and Planning, National Planning Department. 2010. *Sri Lanka, the Emerging Wonder of Asia, Mahinda Chintana Vision for the Future: The Development Policy Framework*. NPD, Colombo.

External Participation in TVET Sector, 2011

Vocational and Technical Training	Source
Continuation of Ongoing Projects	
Technical Education Development Project	ADB
New Projects (to be implemented)	
Set up a District Vocational Training Center at Kilinochchi	ADB
Assessment Centers to Offer National Vocational Qualification	KOICA
Development of Automobile Engineering Training Institute at Orugodawatta	Denmark
Establish Professional; Vocational Training Institutions	KOICA
Set up District Vocational Training Centers in Northern and Eastern Provinces	KOICA

ADB = Asian Development Bank, KOICA = Korea International Cooperation Agency, TVET = technical and vocational education and training.

Source: Government of Sri Lanka, Ministry of Finance and Planning, National Planning Department. 2010. *Sri Lanka, the Emerging Wonder of Asia, Mahinda Chintana Vision for the Future: The Development Policy Framework*. NPD, Colombo.

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Innovative Strategies in Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia
Sri Lanka

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

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