## Research Report

## A Tracer Study on NVQ Certificate Holders

by

Tertiary and Vocational Education Commission

**Revised Version** 

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# **Executive Summary**

### 1: Introduction

The Government of Sri Lanka is committed to ensure human resources development in the country keeping with the national and international labour market demand and recognize the importance of acquisition of competencies. The National Vocational Qualifications systems that is based on the certification of competencies was developed to be implemented in the Sri Lankan Technical and Vocational Education and Training (TVET) sector with the assistance of Asian Development Bank funded Skills Development Project (SDP) and the Technical Education Development Project (TEDP).

National Vocational Qualifications Systems in Sri Lanka (NVQSL) provides the opportunity for sustainable, strategic solutions for national training needs as well as for the employment mismatch for both the formal and the non-formal sectors. The NVQSL will easily be able to achieve national and international recognition for qualifications, knowledge, skills and attitudes of Sri Lankans in an increasingly globalised and competitive world. This will enhance the mobility of Sri Lankan workers nationally & internationally. The internationally benchmarked policies and processes adopted by the Tertiary and Vocational Education Commission (TVEC) shall enhance credibility to credentials awarded in Sri Lanka.

## 1.1: Expectations of National Vocational Qualifications Framework

The expectations sought from the establishment of a National Vocational Qualifications Framework relates to increasing the quality and relevance of Technical and Vocational Education and Training (TVET) sector and specifically focused to:

- Unified qualification framework which is recognized nationally and understood internationally
- Development of progressive qualifications for career advancement

- Greater alignment to national goals.
- Strengthened linkages with industry, commerce and other external stakeholders.
- Increased responsiveness to industry competency needs.
- Convenient & flexible access for potential trainees.
- More proactive education and training strategies.
- Improved international linkages and recognition.
- Collaboration and rationalisation among the training agencies.
- Enhanced quality, relevance, performance, effectiveness, efficiency and transparency.
- An education and training culture of responsiveness and excellence.

Developing the NVQSL ensures that all current and newly emerging technical and vocational education and training (TVET) activities are well coordinated. Competency-Based Training (CBT) curricula and appropriate teaching, learning and assessment materials shall be available in the framework, together with requirements for registration and accreditation for training providers and courses respectively. The whole system shall be underpinned on acquisition of competencies with an emphasis on quality. The TVEC is the authority for the implementation of NVQSL and the active participation of all the training agencies NAITA, DTET, VTA, NYSC, Univotec and other public, private and NGO sector training institutions are vital for the effective implementation of the National Vocational Qualifications of Sri Lanka.

This system shall be extended and be linked with secondary and higher education to provide pathways for continuing worker education and lifelong learning. Technical and vocational education and training may take place as "institutional training" (off the job training) as well as "industrial training" (on the job training).

## 1.2: Overview of the Qualifications System

The National Vocational Qualifications Framework makes provision for a nationally consistent, technical and vocational education and training in Sri Lanka relevant to economic and social development and is of an international standard. The National Vocational Qualifications of Sri Lanka are based on national competency standards identified by the industry stakeholders. The competency standards include relevant technical and employability competencies. The system awards qualifications at seven levels as given in Table 1.1.

**Table 1.1: Seven Levels of Qualifications** 

Level No.	Qualification	Generalized Description
Level 1	National Certificate	Level 1 recognizes the acquisitions of entry level competencies

Level 2 Level 3 Level 4	National Certificate	Levels 2, 3,and 4 recognize increasing levels of competencies. Level 4 qualification provides for full craftsmanship/ workmanship.
Level 5 Level 6	National Diploma	Levels 5 and 6 recognize the increasing levels of competencies of technicians including supervision and process management.
Level 7	Bachelors Degree	Level 7 recognizes the vocational/technological competencies at Bachelors Degree level

Certification of 1 – 6 levels shall be carried out by institutions accredited by the TVEC. Certification at level 7 shall be carried out by the Univotec. They are nationally recognized and attests the achievement of a national standard determined by industry. Competency standard units can be acquired individually or progressively and lead towards a full award. The NVQSL encourages flexible skills acquisition both on and off the job and also recognizes that prior learning-policies and processes. These are established to allow knowledge and skills acquired informally to be assessed, and competencies recognized towards national vocational qualifications.

A broad framework has been developed integrating technical/vocational and higher education and further levels may be added. The framework allows for an interface with secondary education and provides a progression for technical and vocational education qualified personnel to proceed to higher education. Industry and professional bodies participating in the development of the national competency standards are therefore in a

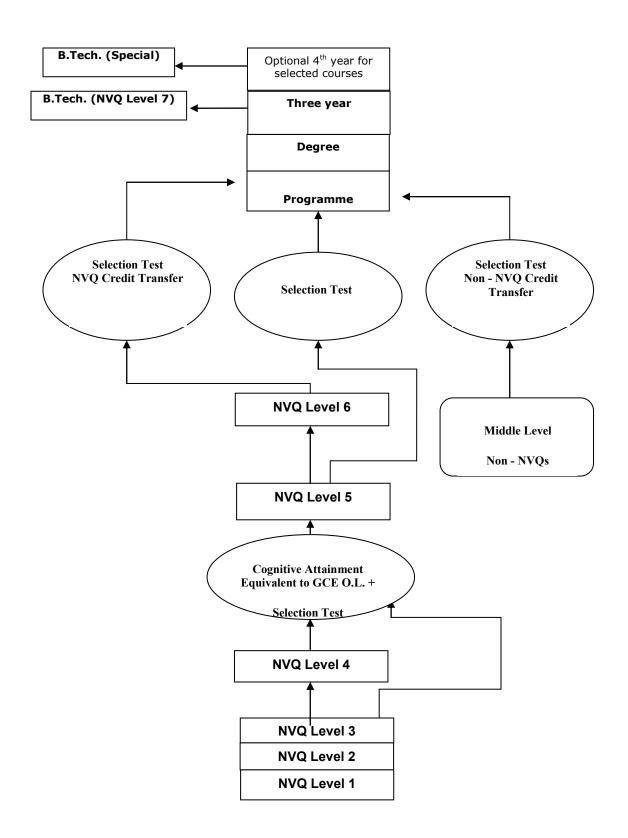
position to plan for a smooth progression of qualifications from craft to technician to higher education.

Quality assurance is fundamental to all aspects of the NVQSL; it includes the determination of the national competency standards, training delivery to learners on and off the job, the assessment of competencies of candidates and the award of qualifications. Technical and vocational qualifications which comply with the national quality requirements are formally recognized through the National Vocational Qualifications of Sri Lanka. The framework is based on national competency standards which form the criteria for accreditation of courses. All other qualifications including foreign qualifications which conform to the requirements of the framework will be aligned with the NVQ system.

## 1.3: Qualifications Upgrading Pathways

The NVQSL is developed to assist trainees to join and leave the system at different stages with qualifications at different levels. The qualifications at different levels have been identified to suit employment requirements of the industry. Vertical mobility upwards through the system is straightforward as seamless progression is facilitated. Lateral entry into the system is possible at certain levels for those who have work experience in an appropriate field and assessed to have Recognized Prior Learning (RPL). Gaining NVQ qualifications through RPL is described elsewhere in this manual.

Figure 2: NVQ Upgrading Pathways



#### 1.3.1: How Upgrading of Qualification Works

#### (a) NVQ Levels 1-4

Qualifications at levels 1 – 4 allows for a trainee to upgrade competencies starting from unskilled stage to reach full or master craftsperson stage through the acquisition of competencies specified at each level. These competencies are incorporated into the units of competencies which are packaged appropriately to form the National Competency Standards of a particular occupation. The trainee maintains a Record of Achievement of the units of competency that he/she has successfully completed and once all the units comprising a particular level has been successfully completed he/she is eligible to receive the National Certificate in the relevant occupation at the applicable level. Thus a trainee is able to upgrade his/her qualification level in a particular occupation through gradual acquisition of competencies as per the National Competency Standards.

#### (b) NVQ Levels 5 and 6

NVQ level 5 and 6 diploma programs allow a student to leave the system at the end of Level 5 with a National Diploma of NVQ level 5 or proceed and leave the system at the end of Level 6 with a National Diploma of NVQ level 6. However some diploma programmes may not have an exit at NVQ level 5. This is possible where the industry has identified that there is no employment category for a person with competencies achieved up to level 5 only in that technology area.

The programmes are developed so that persons with NVQ level 5 or 6 qualifications will have supervisory and/or process management competencies. These involve an increased percentage of knowledge component compared to competencies at lower levels. It is therefore necessary to ensure those entering NVQ level 5 programmes already have the necessary hands on skills to embark on a level 5 programme. The entry qualification to the Level 5 Diploma program

is therefore fixed at NVQ Level 3 or Level 4 in a relevant occupation. The list of relevant occupations for each level 5 diploma will be notified when applications are called for these programmes. There is also a path of lateral entry for students with non NVQ qualifications mapped by the TVEC and assessed for their practical experience as well as for those who have work experience in an appropriate field and assessed to have Recognized Prior Learning (RPL) equivalent to NVQ level 3 or 4.

Candidates selected for entry to a NVQ level 5 programme may possess different skill and knowledge backgrounds. Even those coming through the NVQ system itself will have qualifications from different occupations. In order to ensure that all those selected to undergo a level 5 programme have the minimum skills and knowledge needed at entry, they will initially go through a Bridging program. This is carried out for the selected candidates after a selection test and an academic counselling session. The bridging program provides the necessary knowledge and competence to the students selected to Level 5. If there is a skill gap in a particular student that will be identified at the academic counselling session and the student is directed for necessary "Gap-Filling" programs. The "Foundation Studies" program is intended to provide the necessary mathematics, science and English knowledge and computer literacy needed to embark on a level 5 programme. Some students may get full or part exemption from Gapfilling. However, it is recommended that all students follow the Foundation Studies program. There are four subjects under Foundation Studies with each subject having several Modules:-

- Communication Skills in English
- Mathematics for Technology
- Science for Technology
- Computer Literacy

NVQ level 5 and 6 competency standards comprise of units of competency and each unit of competency is assigned a credit value. A trainee will be eligible to receive the NVQ level 5 qualification once he/she earns the required number of credits specified in the relevant competency standard. A level 5 qualification allows direct entry to the NVQ level 6 training programme in the same technology area with the credits earned towards the NVQ level 5 qualification counted towards the NVQ level 6 qualification.

#### (c) NVQ Level 7

NVQ level 7 programmes conducted by the Univotec allow students to acquire B.Tech. or B.Ed. Tech. degree qualifications. Pathways, from the National Diplomas, will be available to students who have achieved the relevant NVQ qualifications at levels 5 or level 6 to proceed to degree programmes. Those with NVQ level 6 qualifications are eligible to receive appropriate credit transfer towards the degree programme, to be determined by the Univotec.

## 1.4: National Competency Standards (NCS)

Competency is the application of knowledge and skills relative to an industry standard of performance. The concept of competency focuses on what is expected of an employee in the workplace, rather than on the learning process, and embodies the ability to transfer and apply skills and knowledge to different situations and environments. Therefore, in Competency-based training (CBT) emphasis is placed on what a person can do in the workplace as a result of completing a program of training.

Competency standards are industry-determined specifications of performance that set out the skills, knowledge and attitudes required to operate effectively in a specific industry or profession. Competency standards are made up of units of competency, which are themselves made up of elements of competency, together with performance criteria, a range of variables, and an evidence guide. Competency standards are an endorsed component of a training package.

For a person to be assessed competent they need to demonstrate the ability to perform tasks and duties to the standard expected in employment. CBT focuses on the development of the skills, knowledge and attitudes required to achieve those competency standards.

One of the primary features of CBT is that each learner's achievement is measured against the competency standards rather than against the achievement of other learners.

The competency standards are a basis for curriculum development, the preparation of teaching, learning and assessment materials, as well as training plans.

The framework shall progressively include new qualifications based on national competency standards. It is envisaged that over time, many areas of technical and vocational education and training shall be covered by national competency standards.

The competency standards approach allows continuous review of national vocational qualifications and shall together with the international benchmarking bring coherence to

competency standards-setting at all levels.

The intellectual property contained in the national competency standards and the NVQSL is copyright to the Government of the Democratic Socialist Republic of Sri Lanka and shall be available through the Tertiary and Vocational Education Commission (TVEC).

TVEC shall make available a full listing of all accredited courses with their level and purpose for the information of learners and employers. This ensures comprehensive coverage of a sector and coherent identification of competency standards / qualifications including a sensible match adjusted to the labour market.

Guidelines are available to advice the developers of competency standards and qualifications in order to outline technical requirements for the format and content of the national vocational qualifications.

## 1.5: Quality Assurance of NVQ

Quality underpins all components of the NVQSL. A quality assurance model based on institutional self-assessment and continuous development has already been adopted. Quality assurance requires that all training agencies take responsibility for excellent performance and demonstrate to stakeholders that quality management systems are to the standard required by the TVEC.

TVEC is responsible to facilitate and regulate quality assurance and has four clusters of activities to support the NVQSL.

- 1 Registration of training providers
- 2 Quality Management System

- 3 Course accreditation
- 4 Monitoring and audit

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

The Quality Assurance system is subject to monitoring and audit by TVEC. This process systematically verifies registration and accreditation through institutional quality audit. Training providers must have satisfactory audit results in order to maintain the status of registration and accreditation.

In addition the TVEC shall undertake monitoring, evaluation and research during the implementation of the vocational qualifications system, in order to modify policies and procedures in the light of Sri Lankan experience and international developments. An implementation, monitoring and research committee with external stakeholder representation shall be established by the TVEC.

## 1.6: Certification of NVQ

Accredited training providers and establishments are authorized to award national qualifications jointly with TVEC. The certification of national qualifications shall be maintained in a central database at the TVEC. Accredited training providers are facilitated to enter assessment information to online NVQ certificate database. This will facilitate the verification of the authenticity of qualifications.

The national certificate will carry the logo of the Democratic Socialist Republic of Sri Lanka, logo of TVEC together with the logo of the respective training agency. The government of Sri Lanka will promote the NVQSL through benchmarking and official communication with relevant international agencies.

### 1.7: Flexible Skills Acquisition

The NVQSL framework which is based on national competency standards is flexible with regard to worker/trainee competency acquisition. Training providers may develop modularized courses, which are offered either full time or part time.

Progressive competency acquisition shall be recognized in the NVQSL. A worker/trainee achieving some of the units and not all the competencies specified in the respective national competency standard, is provided with a Record of Achievement (RoA). RoAs are issued by the respective training provider.

## 1.8: Level Descriptors of National Vocational Qualifications

Table 2 provides information on the level descriptors for the "National Vocational Qualifications". The units of the competency standards are individually assigned to a level and vocational qualifications are also assigned levels.

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

Process that a qualification holder will carry out
Learning demand
Responsibility

Table 1.2: Level descriptors for the national vocational qualifications framework

Level	Process	Learning demand	Responsibility
1	Carry out processes that:	Employing :	Applied:
	<ul> <li>are limited in range</li> <li>are repetitive and familiar</li> <li>are employed within closely defined contexts</li> <li>are single processes</li> </ul>	knowledge and cognitive skills	<ul> <li>in directed activity</li> <li>under close supervision</li> <li>with no responsibility fo</li> <li>the work or learning</li> <li>others</li> </ul>

2	Carry out processes that:	Employing :	Applied :
	<ul> <li>are moderate in range</li> <li>are established and familiar</li> <li>offer a clear choice of routine responses</li> <li>involve some prioritizing of tasks from known solutions</li> </ul>	<ul> <li>basic operational knowledge and skill</li> <li>readily available information</li> <li>known solutions to familiar problems</li> <li>little generation of new ideas</li> </ul>	<ul> <li>in direct activity</li> <li>under general supervision and quality control</li> <li>with some responsibility for quantity and quality</li> <li>with possible responsibility for guiding others</li> </ul>

3	Carry out process that:	Employing:	Applied :
	<ul> <li>require a range of well developed skills</li> <li>offer a significant choice of procedures requiring prioritization</li> <li>are employed within a range of familiar contexts</li> </ul>	- some relevant theoretical knowledge  - interpretation of available information  - discretion and judgment  - a range of known responses to familiar problems	with some autonomy - under general

4	Carry out process that:	Employing :	Applied :
	<ul> <li>require a wide range of technical or scholastic skills</li> <li>offer a considerable choice of procedures requiring prioritization to achieve optimum outcomes</li> <li>are employed in a variety of familiar and unfamiliar contexts</li> </ul>	base incorporating some theoretical concepts - analytical interpretation of	<ul> <li>in self – directed activity</li> <li>under broad guidance and evaluation</li> <li>with complete responsibility for quantity and quality of output</li> <li>with possible responsibility for the quantity and quality of the output of others</li> </ul>

5	Carry out processes that:	Employing:	Applied :
	<ul> <li>require a wide range of specialised technical or scholastic skills</li> <li>involve a wide choice of standards and non –standards procedures</li> <li>are employed in a variety of routine and non routine contexts</li> </ul>	<ul> <li>a broad knowledge base with substantial depth in some areas</li> <li>analytical interpretation of a wide range of data</li> <li>the determination of appropriate methods and procedures in response to a range of concrete problems with some theoretical elements</li> </ul>	<ul> <li>in self – directed and sometimes directive activity</li> <li>with broad general guidelines or functions</li> <li>with full responsibility for the nature, quantity and quality of outcomes</li> <li>with possible responsibility for the achievement of group outcome</li> </ul>

6	Carry out processes that:	Employing:	Applied :
	<ul> <li>require a command of wide-ranging highly specialised technical or scholastic skills</li> <li>involve a wide choice of standards and non standards procedures, often in non standards combinations</li> <li>are employed in highly variable routine and non routine contexts</li> </ul>	one area  - the analysis, reformatting and	<ul> <li>in managing processes</li> <li>within broad parameters for defined activities</li> <li>with complete accountability for determining and achieving personal and / or group outcomes</li> </ul>

7	Carry out processes that:	Employing:	Applied :
	<ul> <li>require a command of highly specialised technical or scholastic and basic research skills across a major discipline</li> <li>involve the full range of procedures in a major discipline</li> <li>are applied in complex, variable and specialised contexts</li> </ul>	major discipline with areas of specialisation in depth  - the analysis, transformation and evaluation of abstract data and concepts  - the creation of appropriate	<ul> <li>in planning, resourcing and managing processes</li> <li>within broad parameters and functions</li> <li>with complete accountability for determining, achieving and evaluating personal and/ or group outcomes</li> </ul>

## 1.9: Research Objectives and Rationale:

Tertiary and Vocational Education Commission has taken steps to introduce a National Vocational Qualification System (NVQ) consisted with 7 Levels in collaboration with Government, private and NGO sector Technical Education and Vocational Training Institutes under the guidance of Ministry of Vocational and Technical Training. The NVQs are issued in two modes called institutional Competency Based Training(CBT) mode and Recognition of Prior Learning (RPL) mode.

The proposed research is focused for following main objectives as to ascertain the outcomes of the NVQ.

- 1. To identify required improvements for NVQ process in TVET sector
- 2. To analyses the employability of NVQ holders in different occupations.
- 3. To find out the economic and social status changes of beneficiaries

## 1.3: NVQ certificates issued up to March, 2010

Main Category	Occupation	RPL	CBT	Total
Wholesale and Retail Trade:	Automobile Mechanic	248	1,330	1,578
Repair of Motor Vehicles and Motorcycle Mechinic		5	1,027	1,032
Personal and Household	Automobile Painter	35	191	226
Goods	Automobile Air			
	Conditioning Mechanic	15	101	116
	Automobile Electrician	14	64	78
	Automobile Tinker	6	68	74
Transport, storage and				
communication	Store Keeper	8	0	8
Real Estate Renting and	Computer Application			
Business Activities	Assistant	506	3,060	3,566
	Computer Hardware			
	Technician	63	414	477
	Computer Network	2	0	2
	Technician	3	0	3
Other Community, Social and	Beautician	276	1,997	2,273
Personal service activities	Hair Stylist	330	1,668	1,998
Manufacturing	Baker	1,181	1,877	3,058
	Welder	206	1,688	1,894
	Carpenter	85	1,335	1,420
	Refrigeration & Air			
	Conditioning Mechinic	85	851	936
	Radio, TV And Allied	4.1	10.6	4.65
	Equipment Repairer	41	426	467
	Computer Graphic	94	370	464
	Designer Machinist	21	322	343
	Industrial Sewing	21	322	343
	Machine Operator		300	300
	Jewellery Stone Setter	3	109	112
	Jewellery Maker	3	10)	112
	(Goldsmith)	15	86	101
	Desktop Publisher	34	63	97
	Litho Machine Operator	35	41	76
	Fabricator (Metal)	2	32	34
	Leather Footware Maker	3	16	19
	Tool & Die Maker		1	1

Electricity, Gas steam and hot	Electrician	162	1,166	1,328
Water supply	Plumber	34	310	344
	Electric Motor Winder	9	308	317
	Household Electrical			
	Appliance Repairer	6	147	153
Construction	Mason	149	861	1,010
	Aluminium Fabricator	18	475	493
	Carpenter (Buildings)	66	229	295
	Bar Bender		8	8
	Painter (Buildings)	3	0	3
	Total	1,768	22,904	24,672

There were 24,672 certificates issued up to March 2010. Among them there were 3,761 certificates issued in RPL mode through National Apprentice and Industrial Training Authority (NAITA) since 2004. As a tracer study, IS division decided to conduct a tracer study on NVQ holders for all occupations and their behaviour in the Labour Market.

# 2: Methodology

This section deals with the population of the study, how the sample was selected, the instruments used for the survey and the analysis methods.

## 2.1: Sample Selection

Until the end of year 2010, NVQ certificates for 36 occupations/sectors have been issued. Therefore it is proposed to conduct sample tracer study for 25 selected occupations which exceeds minimum of 100 certificates from the inception and full tracer study which the occupations below 100 certificates.

**Details of Certificates Issued up to December 2010** 

Occupation	RPL	CBT	Total
Computer Application Assistant	506	3,060	3,566
Baker	1,181	1,877	3,058
Beautician	276	1,997	2,273
Hair Stylist	330	1,668	1,998
Welder	206	1,688	1,894
Automobile Mechanic	248	1,330	1,578
Carpenter	85	1,335	1,420
Electrician	162	1,166	1,328
Motorcycle Mechinic	5	1,027	1,032
Mason	149	861	1,010
Refrigeration & Air Conditioning			
Mechinic	85	851	936
Aluminium Fabricator	18	475	493
Computer Hardware Technician	63	414	477
Computer Graphic Designer	94	370	464
Radio, TV And Allied Equipment			
Repairer	41	426	467
Plumber	34	310	344
Machinist	21	322	343
Electric Motor Winder	9	308	317
Industrial Sewing Machine Operator		300	300
Carpenter (Buildings)	66	229	295

Automobile Painter	35	191	226
Household Electrical Appliance Repairer	6	147	153
Automobile Air Conditioning Mechanic	15	101	116
Jewellery Stone Setter	3	109	112
Jewellery Maker (Goldsmith)	15	86	101
Desktop Publisher	34	63	97
Automobile Electrician	14	64	78
Lintho Machine Operator	35	41	76
Automobile Tinker	6	68	74
Fabricator (Metal)	2	32	34
Leather Footware Maker	3	16	19
Bar Bender		8	8
Store Keeper	8	0	8
Painter (Buildings)	3	0	3
Computer Network Technician	3	0	3
Tool & Die Maker		1	1
Total	1,768	22,904	24,672

The sampling frame of the study is considered as all the NVQ holders from public and private and Ngo sector up to December 2010. Sample frame was prepared based on administrative records. For the data collection it is decided to conduct a postal survey. As the response to the postal survey is very low about 34 percent of the total NVQ certificate holders were considered as a sample. The total sample size for the study is 8,400 and the list could be obtained from the NVQ certificate database. (See Annex 1)

#### 2.2: Instruments and Data Collection

The survey has been conducted by two stages. At the first stage, 10 selected occupations which exceeds minimum of 100 certificates from the inception will be considered and focus on 3,000 NVQ certificate holders (i.e. 12 percent of the total NVQ certificate holders up to March, 2010) including Certificate holders through RPL method.

Thereafter, remain has been considered at the second stage.

This survey was proposed to conduct using postal questionnaire and used the available budget in 2010 and span over to year 2011 for remaining activities

Postal questionnaire survey method was selected for this research. The questionnaire can be mainly considered as semi-structured. There were 11 main sections of questions. The questionnaire is prepared in Sinhala and Tamil languages. The questionnaire was mailed with a stamped envelope and explanatory letter to NVQ certified personnel throughout the country. The data was coded and entered to a database. SPSS package has been used to analyze the data. Graphs and tables were used to analyze the data.

## 3: Analysis and Interpretation

As the tracer study was conducted trough mail survey the response rate of the NVQ certificate holders is 14 percent of the total sample. Structured questionnaire was used to collect data. 1177 NVQ certificate holders responded to the mail survey. Simple cross tabulations and graphs were used to analyze the data.

### 3.1: General Information

The actual sample distribution that is 1177 of respondents by industry sector is shown below.

Table 3.1.1: Distribution of NVQ Respondents by Industry Sector and Course

Name

Main Industry Sector	Course Name	Number	%
Manufacturing	Welder	112	27.4
	Wood Craftsman (Furniture)	85	20.8
	Baker	77	18.8
	Radio, TV And Allied Equipment Repairer	34	8.3
	Refrigeration & Air Conditioning Mechanic	19	4.6
	Computer Graphic Designer	18	4.4
	Machinist	18	4.4
	Desktop Publisher	12	2.9
	Jewellery Stone Setter	9	2.2
	Litho Machine Operator	9	2.2
	Fabricator (Metal)	7	1.7
	Carpenter (Furniture)	4	1.0
	Leather Footwear Maker	3	.7
	Jewellery Maker (Goldsmith)	2	.5
	Total	409	100.0
Electricity, Gas Steam and Hot Water Supply	Electrician	132	74.6
11 5	Plumber	24	13.6

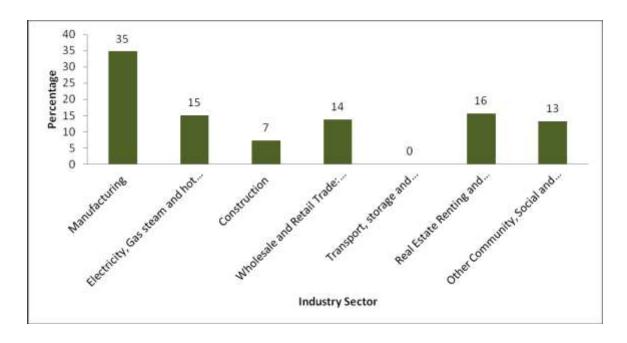
Main Industry Sector	Course Name	Number	%
•	Electric Motor Winder	15	8.5
	Household Electrical Appliance Repairer	5	2.8
	House Hold Electrical Appliance Repairer	1	.6
	Total	177	100.0
Construction	Construction Craftsman (Masonry)	42	48.8
	Aluminium Fabricator	22	25.6
	Wood Craftsman (Buildings)	19	22.1
	Painter (Buildings)	2	2.3
	Bar Bender	1	1.2
	Total	86	100.0
Wholesale and Retail Trade: Repair of Motor Vehicles and Personal and Household Goods	Automobile Mechanic	67	41.4
	Motor Cycle Mechanic	36	22.2
	Automobile Painter	28	17.3
	Automobile Tinker	13	8.0
	Automobile Electrician	10	6.2
	Automobile Air Conditioning Mechanic	8	4.9
	Total	162	100.0
Transport, Storage and Communication	Store Keeper	2	100.0
Real Estate Renting and Business Activities	Computer Hardware Technician	146	79.3
	Computer Applications Assistant	38	20.7
	Total	184	100.0
Other Community, Social and Personal service activities	Beautician	134	85.9
	Hair Stylist	22	14.1
	Total	156	100.0

The table 3.1.1 shows that the responded NVQ certificate holders' distribution by courses and industry sector.

Table 3.1.2: Percentage Distribution of NVQ Respondents by Industry Sector

	RPL		CBT		Total	
Industry Sector	Number	%	Number	%	Number	%
Manufacturing	82	35.7	327	34.6	409	34.8
Electricity, Gas steam and hot Water supply	25	10.9	152	16.1	177	15.1
Construction	7	3.0	79	8.4	86	7.3
Wholesale and Retail Trade: Repair of Motor Vehicles and Personal and Household Goods	28	12.2	134	14.2	162	13.8
Transport, Storage and Communication	2	.9			2	0.2
Real Estate Renting and Business Activities	48	20.9	136	14.4	184	15.6
Other Community, Social and Personal service activities	38	16.5	118	12.5	156	13.3
Total	230	100.0	946	100.0	1176	100.0

Figure 3.1.1: Percentage Distribution of NVQ Respondents by Industry Sector



The table 3.1.2 shows the percentage distribution of the respondents. As manufacturing sector response rate is 34.8 percent it can be said that manufacturing sector has produced

the highest percentage of NVQ. The Real Estate Renting and Business Activities sector and the Electricity, Gas steam and hot Water supply sector response rates are following second and third highest respectively.

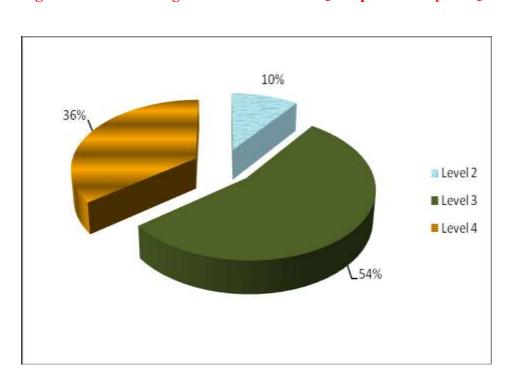
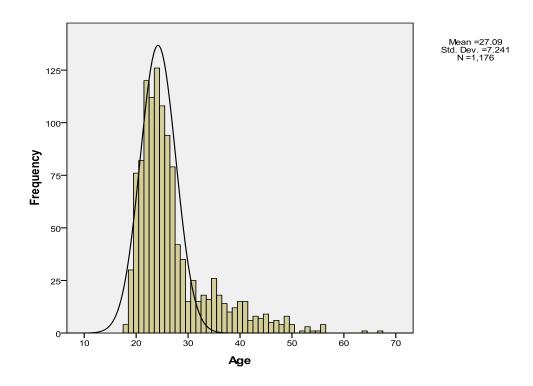


Figure 3.1.2: Percentage Distribution of NVQ Respondents by NVQ Level

Figure 3.1.2 shows that percentage distribution of the respondents. The target group of the research was NVQ Certificate holders who hold NVQ up to level 4. It has been seen that 54 percent of respondents are holding NVQ level 3 qualification. 36 percent of NVQ holders have level 4 qualification.

Figure 3.1.3: Age Distribution of the NVQ Certificate Holders



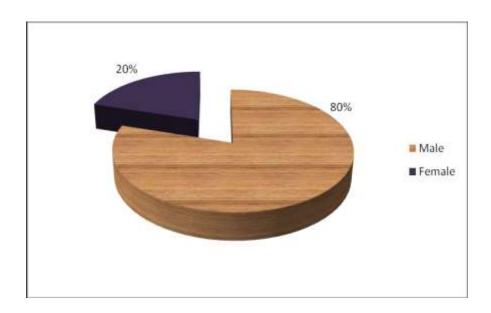
	Years
Mean	27
Median	25
Mode	24
Range	49

The age distribution of the NVQ certificate holders is shown in the above figure. The average age of the NVQ certificate holders is 27 years. The standard deviation of the age is 7 years. Majority of NVA certificate holders are age at 24 years. As the mode is 24 years, the majority, it has been seen that there is a higher tendency of getting a vocational qualification at young ages. According to the age distribution it is clear that looking for a recognized qualification is a lifelong activity. The figure 3.2 shows that there are NVQ certificate holders whose age are 60 years or over.

Table 3.1.3: Gender Distribution of the NVQ Certificate Holders.

Gender	Number of NVQ certificate holders
Male	938
Female	238
Total	1176

Figure 3.1.4: Gender Distribution of the NVQ Certificate Holders.



The gender distribution of the NVQ certificate holders is 80 percent for males and 20 persent for females. Females are less like to looking for a vocational or technical qualification than males.

Table 3.1.4: Percentage Distribution of NVQ Certificate Holders by Industry Sector and Gender

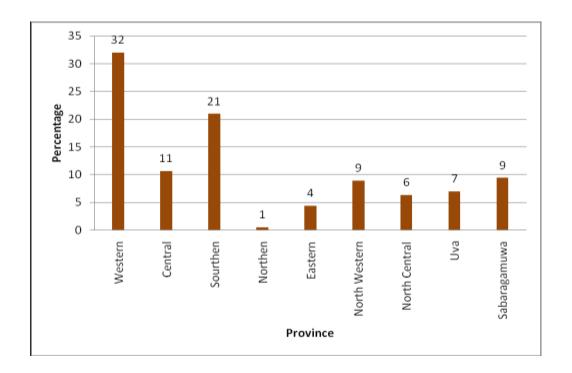
	Gender	(%)	Total
Industrial category	Male	Female	
Manufacturing	89	11	100
Electricity, Gas steam and hot Water supply	98	2	100
Construction	94	6	100
Wholesale and Retail Trade: Repair of Motor			
Vehicles and Personal and Household Goods	99	1	100
Transport, storage and communication	100	0	100
Real Estate Renting and Business Activities	79	21	100
Other Community, Social and Personal Service			
activities	7	93	100
Total	80	20	100

According to the table 3.1.4 except the Other Community, Social and Personal service activities sector all other industry sectors dominated male NVQ certificate holders than female. There were 11 percent of female certificate holders can be seen in manufacturing sector. The Other Community, Social and Personal Service activities sector has produced the highest percentage of female NVQ certificate holders. That is 93 percent. As this sector does not have highly technical content to study more females tend to follow courses from Other Community, Social, and Personal Service activities sector.

Table 3.1.5: Percentage Distribution of the NVQ Certificate Holders by Province and Industry Sector

	Province (%)								
Industry Sector	Western	Central	Southern	Northern	Eastern	North Western	North Central	Uva	Sabaragamuwa
Manufacturing	35	32	30	33	49	34	32	57	36
Electricity, Gas steam and hot Water supply	11	23	16	0	14	14	16	12	24
Construction	4	2	17	67	12	3	7	2	6
Wholesale and Retail Trade: Repair of Motor Vehicles and Personal and Household Goods	10	15	13	0	0	27	11	12	21
Transport, storage and communication	0	1	0	0	0	0	0	0	0
Real Estate Renting and Business Activities	20	17	17	0	22	7	15	11	5
Other Community, Social and Personal service activities	21	10	7	0	4	15	19	5	8
	100	100	100	100	100	100	100	100	100





As shown in the table 3.1.5 except for the Nothern provincethe highest percentage of NVQ certificate holders are reported from the Manufacturing sector. In the Nothern province the highest percentage that is 67 percent of NVQ certificate holders are reported for the Construction sector. The reason may be as this province was suffred from the confilict situation for more than three dicades more job oppertunities can be expected from construction sector. About 57 percent of Manufacturing sector NVQ certificate holders are reported in the Uwa province. The Western province that produses the highest percentage of NVQ certificate holders has 21 percent of Other Community, Social, and Personal service activity sector NVQ certificate holders. As many builticulture and Hairstylist course are offered in the Western province considerable number of NVQ certificate holders can be expected in Western province. The second highest percentage of certificate holder is from Southern province. Northern Province has reported for the lowest percentage of NVQ certificate holders. Especially war affected provinces that are Northern and Eastern provinces produce less than 5 percent, lower percentages of NVQ certificate holders.

Table 3.1.6: NVQ Certificate Holders' Perception on NVQ certificate by Ruite of Training

	RPL	CBT
Assessment	Mode	Mode
Very Good	60.0	55.0
Good	21.3	30.3
Not good	1.7	0.7
Nothing to say	3.0	4.3
Not Stated	13.9	9.6
Total	100.0	100.0

In order to get the NVQ certificate holder's perception on NVQ certificate the question whether the certificate is useful or not was asked. It has been seen that regardless of the mode of training more than 50 percent stated that it is very good. In general more than 80 percent has stated that it is good. Form NVQ certificate holders from RPL mode 13.9 percent has responded to the question For the CBT mode it is 9.6 percent.

Table 3.1.7: Benefits received as a Result of NVO

	Found another job with a higher salary	Found a new job	Found a foreign job	Received a salary increment	Got well social recognition	Able to go for higher studies	no any benefit
No	94.6	79.3	95.8	93.6	75.9	68.8	87.0
Yes	5.4	20.7	4.2	6.4	24.1	31.2	13.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

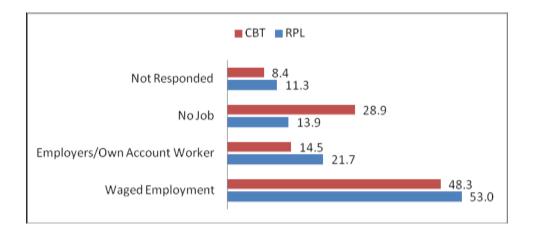
According to the table 3.1.7 from all respondents only 5.4 percent were find another job with a higher salary. It has been seen that 20.7% of NVQ certificate holders were able to a new job with the help of National Vocational Qualification. From all respondents 31.2 percent of NVQ holders were able to go for higher qualification studies. !3 percent of NVQ certificate holders have stated that they haven't had any benefit by getting NVQ Certificate.

Table 3.1.8: Employment Status of the NVQ Certificate Holders by Route of Training

	Route of Training		
<b>Employment Status</b>	RPL	СВТ	
Waged Employment	53.0	48.3	
Employers/Own Account	21.7	14.5	
Worker			
No Job	13.9	28.9	
Not Responded	11.3	8.4	
Total	100.0	100.0	

Figure 3.1.6: Percentage Distribution of Employment Status of the NVQ Certificate

Holders by Route of Training

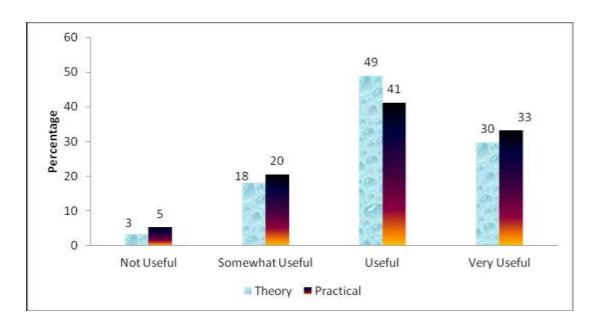


As shown in the above table and graph majority of NVQ holders have some type of employment. Considering RPL mode certificate holders 53 percent that is the highest are waged employees. Eventhough Majority that is 48.3 percent are waged employees from CBT mode certificate holders it is less than the percentage of RPL mode wage employment. Percentage of not having any job is higher among the CBT mode certificate holders. It is 28.9 percent. For RPL mode it is 13.9 percent.

# 3.2: Perception of the CBT Route certificate holders

In order to identify NVQ certificate holders perception on CBT training method they have been asked to evaluate the theory, practical training and industrial training they have under go. Following analysis are based on the CBT receivers only.

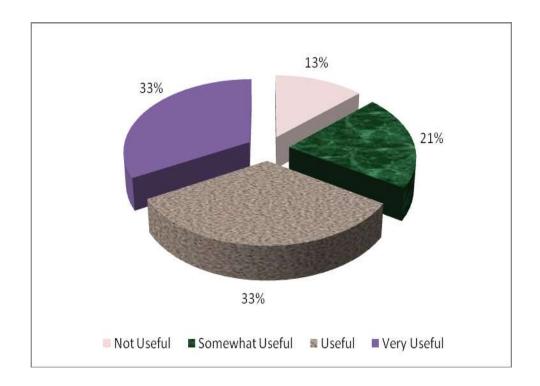
Figure 3.2.1: NVQ Certificate holders' perception of the CBT Theory and Practical at the Training Centre



According to the figure 3.2.1, 49 percent that is the highest stated that the theory content is useful for their vocation or for higher qualification. About 30 percent stated that it is very useful. The lowest percentage, 3 percent of recipient stated that the theory content is not useful.

It has been shown that the highest accessment of the CBT theory content at the training centres is 41 percent that is from useful. About 5 percent stated that the theory content is not useful. Therefore in general training receivers stated that that the theory and practical training at the training centre is useful for vocations or to go for higher qualification.

Figure 3.2.2: NVQ Certificate holders' Perception on the On- the-Job Training at the Work Place



According to the pie chart almost 66 percent of on-the-job training receivers have stated that the training is useful or very useful for their vocations or higher vocational qualification. About 13 percent of CBT training receivers stated that on-the-job training at the work place is not useful.

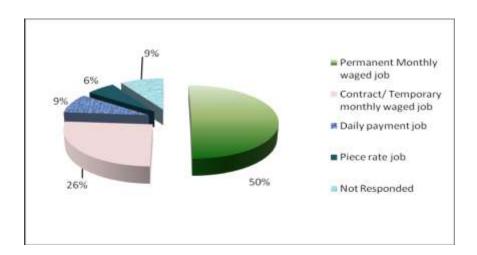
# 3.3: Employment Status

## 3.3.1: Employees

Table 3.3.1: Distribution of Job Type of the Employees by Route

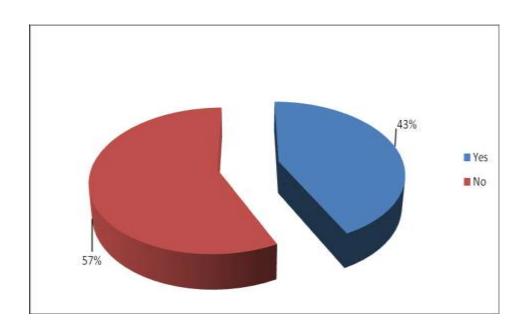
Job Type	RPL Route	CBT Route	Total	Percentage
Permanent Monthly waged job	63	228	291	50.2
Contract/ Temporary monthly waged job	29	122	151	26.0
Daily payment job	9	41	50	8.6
Piece rate job	4	31	35	6.0
Not Responded	18	35	53	9.1
Total	123	457	580	100.0

Figure 3.3.1: Distribution of Job Type of the Employees



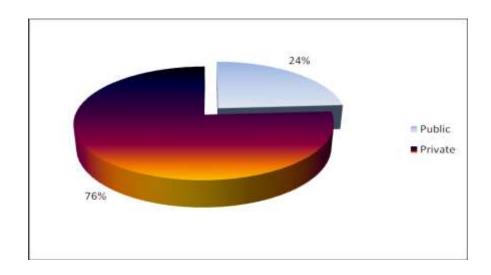
According to the table 3.3.1 about majority of employees have permenent monthly waged job holders. It is 50 percent of the total employees. The lowest percentage of employees is reported from the peace rate wage receivers. From 580 employees 9 percent do not respond to the question. There is no significant difference of distribution of job type between two route.

Figure 3.3.2: Percentage of Employees who Found New Employment



Out of all 580 employees 57 percent say that they did a jobs before sit for NVQ assessment. About 43 percent of employees have found new job opptunities.

Figure 3.3.3: Emloyment Sector of the Employees



As given in the pie chart 76 percent of NVQ holders are working at the private sector.

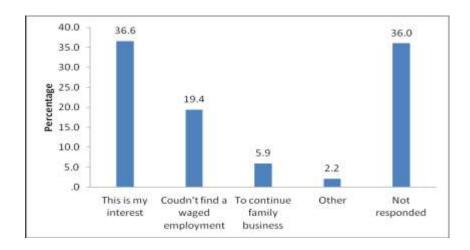
### 3.3.2: Employers and Own Account Workers

Table 3.3.2: The Way of Selecting Employers and Own Account Worker Type

Selection of the Job	RPL Route	CBT Route	Total No.	Percentage
Continue the earlier job	19	29	48	25.8
Family business	6	10	16	8.6
Through NVQ training	2	57	59	31.7
Other	1	0	1	.5
Not responded	21	41	62	33.3
Total	49	137	186	100.0

Considering the above table 31.7 percent that is the highest percentage, have stated that they have entered to to employers/own account worker category through the NVQ training. Out of all employers/own account workers 25.8 percent continued the earlier job. The response rate for this question is 66 percent as 33 percent have not responded.

Figure 3.3.4: Reason for Selecting Employer/ Own Account Worker



The above figure shows the reason selecting employer/own account worker category. Highest percentage of NVQ holders have stated that is their interest. It is 36.6 percent. 19.4 percent of Employers/ own account workers were unable to find a waged

employment. More than one third of employers/own account workers has not responded to the question.

## 3.3.3: Employability of NVQ Certificate Holders

In order to analyse employability it is decided to consider only benificiries who found new job opportunities as a result of NVQ. Therefore the below table shows the employability of the NVQ holders by main industrial caregories. So far it has been offered NVQ certificates for seven industry sectors. The target years were from 2004 to 2010.

Table 3.3.4: New employment Oppertunities by Industry Sector

		Employment (%)			
Industrial category	Yes	Yes, Not from NVQ	No	Total Number Of NVQ Holders	
Manufacturing	34.5	34.3	31.2	417	
Real Estate Renting and Business Activities	27.3	30.1	42.6	183	
Electricity, Gas steam and hot Water supply	33.1	37.6	29.2	178	
Wholesale and Retail Trade: Repair of Motor Vehicles and Personal and Household Goods	32.3	39.2	28.5	158	
Other Community, Social and Personal service activities	25.7	44.1	30.3	152	
Construction	19.8	53.5	26.7	86	
Transport, storage and communication	100.0	0.0	0.0	2	
Total	30.8	37.4	31.8	1176	

As shown in the table 3.3.3 majority of new job opportunities were reported for the Manufacturing sector. 37.4 percent do not hold a new job opportunities. The overal employability of NVQ certificate holders is 30.8 percent. There is a possibility of 32 percent of unemployment among NVQ holders. The highest unemployment can be seen in Real Estate Renting and Business Activity sector. In the construction sector, only 19.8 percent were able to find new employment through national vocational qualification.

Almost 54 percent, that is the highest employment has found jobs without the help of NVQ in the Construction sector.

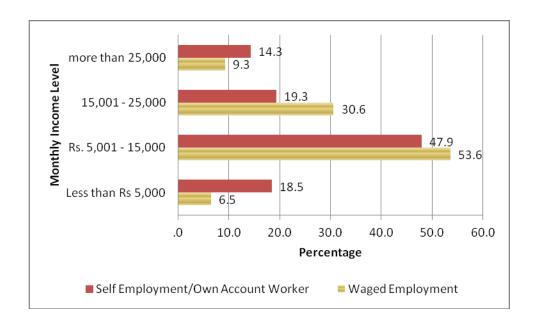
**Table 3.3.5: High Demand Certification Areas by Industry Sector** 

Occupation
Welder
Wood Craftsman (Furniture)
Baker
Radio, TV and Allied
Equipment Repairer
Electrician
Plumber
Electric Motor Winder
Construction Craftsman
(Masonry)
Aluminium Fabricator
Wood Craftsman (Buildings)
Automobile Mechanic
Motor Cycle Mechanic
Automobile Painter
Computer Hardware
Technician
Computer Applications
Assistant
Beautician
Hair Stylist

The above table shows the high demand occupation by industry sectors.

Considering the manufacturing sector NVQ of welder has the highest demand for jobs. In the construction sector NVQ of Wood Craftsman is the highest. Out of two National Vocational Qualification Computer Hardware Technician has the higher demad for jobs in Real Estate Renting and Business Activity sector. It is "Beautician" for the Other Community, Social, and Personal service activities sector.

Figure 3.3.5: Distribution of the Salary of Employees and Own Accont Workers/Employers



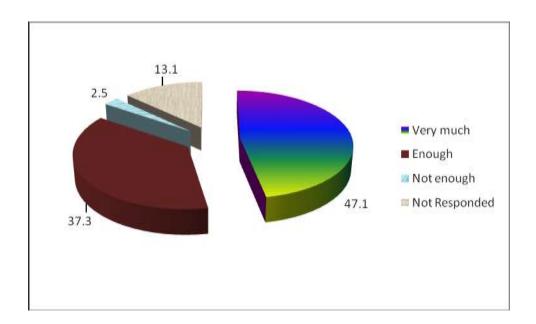
According to the figure 3.3.5 it has been seen that 53.6 percent of employees that is the highest are in Rs. 5,001 -15,000 range. It is note that highest percentage of both categories of employed NVQ holders earn

**Table 3.3.6: Job Relation to National Vocational Qualification** 

Job Relate to NVQ	Percentage
Yes	62.9
Partly	10.3
No	9.0
Not Responded	17.8
Total	100.0

In order to assess the job relation to the qualification the question, "Whether the job relate to NVQ" was asked. Out of all employed NVQ certificate holders 62.9 percent stated that their job relate to the NVQ. Only 9 percent say that job do not relate to NVQ.

Figure 3.3.6: Satisfaction on NVQ



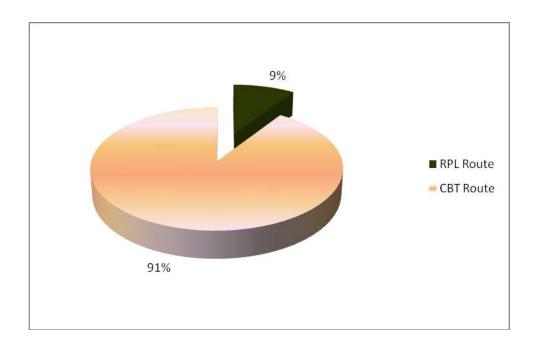
The figure 3.3.6 shows that the employed NVQ certificate holders satisfaction on NVQ when doing the current job. It is clearly shown that more than 80 percent stated that the holding qualification is enough or more than enough in order to do the current job successfully.

# 3.4: Unemployment

3.4.1: Reason for Not Doing a Job

Reason	RPL Route	CBT Route	Number	Percentage	
Couldn't find a job	20	196	216	69.5	
Studding/ Training	8	56	64	20.6	
No need a job	1	10	11	3.5	
Other	3	17	20	6.4	
Total	32	279	311	100.0	

## 3.4.1: Unemployment by Route of Certification



According to the table 3.4.1, it has been seen that out of all 1176 respondents 311 have stated that they are not involving in economic activity. Only 3.5 percent say that they do not expect a job. Out of all 305 respondents, 69.5 percent are unemployed. The unemployment is more acute among the CBT route certificate holders. It is 91 percent.

3.4.2: Reason for Unemployment

Perception	Training Not enough		Training does not match with market needs		Language problem		Less Job opportunities	
	No	%	No	<b>%</b>	No	<b>%</b>	No	<b>%</b>
No	160	74.1	204	94.4	209	96.8	134	62.0
Yes	56	25.9	12	5.6	7	3.2	82	38.0
Total	216	100.0	216	100.0	216	100.0	216	100.0

In order to identify reasons they think for unemployment the question "If you didn't find a job what reasons affect for unemployment?" was asked. Considering all unemployed persons that is 216 it can be seen that 25.9 percent have stated that the training is not enough for employment. As well as 38 percent have stated that, their training area has less job opportunities. It is important that only 94.4 percent of unemployed persons agree that NVQ training content matches with the labour market needs.

## 4: Conclusion and Recommendations

#### 4.1: Conclusion

The NVQ framework has been adopted to the TVET sector since 2004. The study is considered all the NVQ certificate holders from public and private and NGO sector up to December 2010.

Based on the analysis and presentation following conclusions were given.

Considering the age distribution of the NVQ certificate holders it can be concluded that there is a higher tendency of looking NVQ at young ages. The average age of the NVQ certificate holder is 27 years. As 80 percent of NVQ holders are males it is clear that the TVET sector courses are male dominated. Therefore females are less like to looking for a vocational or technical qualification than males. Except Other Community, Social and Personal service activities sector all other industry sectors have been dominated by male NVQ certificate holders. Specially TVET courses that have more technical contents have fewer participation of females.

The important feature is that Western province produces the majority of NVQ certificate holders. The war affected provinces that are Northern and Eastern provinces produce less than 5 percent, lower percentages of NVQ certificate holders. Manufacturing sector has produced highest percentage of NVQ certificate holders.

Questions have been included in order to assess NVQ course content such as theory, practical and industrial training. About 79 percent have stated that the theory content is useful for their vocation or for higher qualification. Also 71 percent have stated that the practical content at the training centre is useful or very useful. Therefore it is concluded that the theory and practical training at the training centre is useful for vocations or to go for higher qualification. In order to get the NVQ certificate holder's perception on NVQ certificate the question whether the certificate is useful or not was asked. More than 50 percent stated that having a NVQ certificate is very good. As well as 66 percent of on-

the-job training receivers have stated that the training is useful or very useful for their vocations or higher vocational qualifications.

As discused in analysis from all respondents only 5.4 percent found another job with a higher salary. It has been seen that 20.7% of NVQ certificate holders were able to find new jobs with the help of National Vocational Qualification. From all respondents 31.2 percent of NVQ holders were able to go for higher qualification studies. About 13 percent of CBT training receivers stated that on-the-job training at the work place is not useful. It has been seen that majority of NVQ holders have some type of employment.

From RPL mode certificate holders 53 percent have waged employement. For CBT mode it is 48.3 percen. Considering employees majority havee permenent jobs. This is obvious a good sign for the NVQ system. It has been seen that from all employees 58 percent say that their jobs were not solely becouse of the NVQ qualificatios. For NVQ certificate holders private sector job openings are higher. 31.7percent have stated that they have entered to to employers/own account worker category through the NVQ training. More than 35 percent of employers/own account workers have stated thatselection of the job is their interest.

In order to analyse employabitity it is decided to consider only benificiries who have new job opportunities as a result of NVQ. Majority of new job opportunities were reported in Manufacturing sector. The overal employability of NVQ certificate holders is 30.8 percent. The highest unemployment can be seen in Real Estate Renting and Business Activity sector. Almost 54 percent, that is the highest employment have found jobs without the help of NVQ in the Construction sector. Considering the manufacturing sector NVQ of welder has the highest demand for jobs. In the construction sector NVQ of Wood Craftsman is the highest. Out of two National Vocational Qualification Computer Hardware Technician has the higher demad for jobs in Real Estate Renting and Business Activity sector. It is "Beautician" for the Other Community, Social, and Personal service activities sector. Majority of NVQ certificate holders earning rage is Rs. 5,001 -15,000 range. Out of all employed NVQ certificate holders 62.9 percent stated that their job relate to the NVQ. Majority employed NVQ certificate holders have stated that the

holding qualification is enough or more than enough in order to do the current job successfully.

### 4.2: Recommendations

Based on the analysis and conclusion following recommendation were given.

As TVET is for all it is recommended to encourage people who are age 30 or above for NVQ.

Even though the employability is considerably high among the NVQ certificate holders, still there is a possibility of unemployment among NVQ holders. Therefore more attention should be given for the course from Real Estate Renting and Business Activities and Other Community, Social and Personal service activities sect