Tracer Study of the Graduates of
Diploma and TSLC Programs under CTEVT

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ACRONYMS

ANM	: Auxiliary Nurse Midwifery
BPH	: Bachelor in Public Health
CMA	: Community Medicine Assistant
CTEVT	: Council for Technical Education and Vocational Training
FGD	: Focus Group Discussion
FGI	: Focus Group Interview
HA	: Health Assistant
INGO	: International Non-Governmental Organization
JTA	: Junior Technical Assistant
NEET	: Not in Employment, Education or Training
NGO	: Non-Governmental Organization
OJT	: On-the-Job Training
OT	: Operation Theatre
PCL	: Proficiency Certificate Level
SD	: Standard Deviation
SPSS	: Statistical Package for the Social Sciences
TSLC	: Technical School Leaving Certificate
TTP	: Technical Training Provider
TVET	: Technical Vocational Education and Training
VJTA	: Veterinary Junior Technical Assistant

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Council for Technical Education and Vocational Training (CTEVT) has been running long-term and short-term training programs of vocational nature under the trades of Health, Agriculture and Construction since its establishment in 2037 B.S. At present, CTEVT delivers both long- and short-term vocational programs as well as three-year academic diploma programs in different faculties. Although a large number of students have already been graduated from the programs of CTEVT, information about the situation of these graduates is still limited within speculation due to lack of effective and reliable study. This tracer study was conducted with the main objective of providing CTEVT with information on the graduates' employment status as well as labor market needs, status of the quality of its Diploma and TSLC level training programs and to suggest the measures to promote the quality of TVET programs, thereby enhancing employability and efficiency of its graduates.

This Tracer Study covers the graduates of eight Diploma level programs of the academic year 2013, i.e. Proficiency Certificate in Nursing; Diploma in General Medicine; Diploma in Pharmacy; Certificate in Medical Laboratory Technology; Diploma in Civil Engineering; Diploma in Electrical Engineering; I. Sc. Agriculture in Plant Science and Diploma in Computer Engineering. Similarly, the eight TSLC level programs covered are: Community Medicine Assistant (CMA); Auxiliary Nurse Midwifery (ANM); Medical Lab Assistant; Civil Sub-overseer; Electrical Sub-overseer; Veterinary Junior Technical Assistant (V-JTA); Basic Surveying and Junior Computer Technician.

The total number of graduates in the selected eight diploma level programs in the academic year 2013 was 7,114 and the corresponding number of selected TSLC program graduates was 5,694. The proposed sample size of graduates in diploma level programs was 1,623 and from TSLC level programs was 1,640. The total number of graduates from both was 3,263. However, targeted data collection was found challenging because of the effect of devastating earthquakes of 25 April and 12 May 2015, and the undeclared/unofficial blockade in the southern border area. Therefore, the study team could not reach all the proposed target graduates. Only 2,009 graduates (1,110 graduates from Diploma level and 899 graduates from TSLC level programs) were traced during the field visit, considering 99% confidence level and below 5% margin of error. Likewise, training institutes were selected purposively so as to cover all parts of the country. Both quantitative and qualitative approaches were used for data collection. Quantitative information was collected through survey of the graduates. Focus group discussion and key informant interview were also used for getting qualitative information.

Two sets of questionnaires — one for the graduates and the other for their employers — were designed and used to collect the post-training information. Most of the graduates were interviewed face to face. However, telephone interview was also conducted with the graduates if face to face interview was not feasible. The survey questionnaire included both status and opinion types of questions. In cases where both face to face and telephonic interviews were not feasible, limited amount of post-training information (status type of questions) was also collected from third sources like the graduates' teachers, guardians, friends, etc.

Semi-structured questionnaires were used for the graduates and rating scale type of questionnaires for employers. Likewise, semi-structured interview checklists were used to interview the key informants. The study instruments were pre-tested with 50 graduates

randomly selected mainly from the Kathmandu Valley and improved based on the experiences gained from the pre-test.

SPSS program was used to analyze the data collected from the graduates. In the quantitative data analysis, tools like frequencies, cross tabulations, mean comparison were basically used. In addition to these analytical tools, ANOVA, Chi-square, t-Tests were also considered as per the nature of data and necessity of analysis. Some qualitative information in the questionnaires was analyzed using cross tabulation and frequency tables.

The analyses of the tracer study are organized in the five thematic sections which are (a) Profile of respondents (b) Employment status of TVET graduates (c) Income level of graduates, (d) Proficiency and satisfaction level of graduates and (e) Quality and relevance of TVET programs.

The key findings of the study are presented under the following headings:
Profile of Respondents
Of the total 2,009 traced graduates of sixteen different TVET programs, 55.5% were female and 44.5% were male. Programs like Proficiency Certificate in Nursing and Auxiliary Nurse Midwifery are accessed only for female. Except these two, female representation was found highest (62.3%) in TSLC Lab Assistant program followed by Community Medicine Assistant (58.2%). Participation of female is comparatively lower in engineering-related programs.

The highest representation of the graduates in the study was from Province One (23.5%) followed by Province Five 22.6%. Only 5.6% were represented from Province Six.

As for the ethnicity of the graduates is concerned, majority of the traced graduates were from Hill Brahmin/Chhetri group (58.1%), followed by Hill *Janajati* (21.5%). Hill *Dalit, Terai Dalit, Madhesi* Middle Caste and Muslim have very negligible representation. The average age of the respondents was 23 years with minimum 17 years and maximum 49 years.

The large majority (62.86%) of employer organizations were from private sector followed by government organization (20%). Likewise, 77.15% of the employers interviewed were from Health and Social Service sector, followed by 11.43% from Education sector. Representation of employers from Agriculture and Construction sectors accounted for mere 2.86%. Of the 35 employers interviewed, none were from Manufacturing sector.

Employment Status of TVET Graduates
Out of 2,009 traced TVET graduates, 982 (49%) were employed, 928 (46%) were unemployed, and the rest 99 (5%) were working as volunteers. The gap between the percentage of employed and unemployed graduates is not that big. At least 70% employment of the graduates is acceptable in TVET programs. But the tracer study showed that only 49% of the TVET graduates were employed.

In Diploma level programs, 51% were employed, 44% were unemployed, and 5% were working as volunteers. Forty-nine percent graduates were employed from PCL Nursing. The highest number of graduates working as volunteer was also from Nursing program. Graduates from the nursing institutes having direct linkage with large hospitals have higher employment rate. The employment rate is the highest in Certificate in Medical Lab

Technology (65%) among the eight Diploma programs traced out. In TSLC programs, 46.9% of the traced graduates were employed and 49% were found unemployed.

Health-related program graduates were involved as volunteers without any salary for six months to one year and there is no job guarantee for these graduates even after completing the terms and conditions of volunteer service. Employment rate of TSLC level graduates is found only about 47%, which is quite low. TSLC level graduates of Health trade, i.e. ANMs and CMAs, were found being replaced by Diploma level Staff Nurse and Health Assistant graduates, an indication of ANMs and CMAs gradually being phased out. In TSLC level Survey course, employment is found only 28%. Very few graduates of Computer Engineering program are wage employed.

Graduates who are self-employed are earning more; for example, the graduates of VJTA program, and therefore, they need to be encouraged for self-employment. There is higher opportunity of self-employment in this trade. Graduates of Lab Technology program are also happy with their self- or part-time employment as they can take more than one work at a time in their own discretion.

Although the earning of the graduates employed in formal sector is less than that of the graduates in informal sector or self-employment or in foreign employment, they are found satisfied with their income.

Still 458 graduates (22.8% of the total 2,009 graduates) out of 928 traced unemployed graduates are hopeful about getting a job and are searching for one. Similarly, 11.3% of the total traced graduates who were unemployed have decided to pursue higher education and progress in their academic level so that they can get higher level job. Likewise, 1.5% graduates were preparing for Public Service Commission examination, and 0.9% were preparing to initiate their own business. This shows that the TVET graduates have choices; either to go into job market having skills to perform well in the job or go in for higher education. Preference of the employers to hire Diploma graduates in place of TSLC graduates, especially in Health trade indicates the need to review these programs.

The skill and knowledge learnt during their study is found relevant to the requirements of the job market. Only 8.4% (of the total) unemployed graduates mentioned that the skills and knowledge they learnt during their study do not match with the requirements of job in the job market. Normally, the gap between graduation and employment is around three months. Soft skills were instrumental for getting employment or to retain it. Communication skill, honesty/positive attitude toward work and organization, and interpersonal skills were vital for retaining the job, especially in private sector. Placement and counseling support of the institute to the graduates is crucial for promoting employment.

Income Level of Graduates
There is a large variation in the income level of graduates which ranges from Rs. 4,000 to Rs. 87,000 per month. The average monthly income is found Rs. 15,861.05. The graduates who are in self-employment earn more than the graduates who are in wage employment in both formal and informal sectors. Graduates of Agriculture trade of both Diploma and TSLC level programs have the highest monthly income. This could be due to higher number of graduates involved in self-employment where earning is significantly higher, a portion of which is the return on their investment too. Average monthly earning of the graduates of Engineering

trade was also over 20 thousand rupees. Earning of the Health program graduates is the lowest among the traced out.

Graduates in formal employment are relatively more satisfied with their income although they earn less than the graduates in informal sector or self-employment or in foreign employment. Earning of male graduates is found higher than female graduates. In Engineering trade, male graduates are earning Rs. 19,776.36 monthly on average, whereas females are earning only Rs. 14,785.71. Regarding job satisfaction, 74.8 percent of the respondents/ employed graduates were satisfied with their current job, while 25.2 percent showed their dissatisfaction with the job they had. Some respondents showed their dissatisfaction with their job because of low remuneration, especially in private sector.

Satisfaction Level of Employers Regarding the Graduates' Performance
Majority of the graduates were satisfied with the TVET programs that they received. The graduates of Lab Technician or Lab Assistant programs were not found confident due to inadequate practical opportunities in the training institutions, especially in private institutions. 61.5 percent of the employers found no significant difference between the performances of the graduates trained at CTEVT institutions and other training institutions. 31 percent of the employers opined that graduates from CTEVT institutes were performing better than other technical staffs. The employers were satisfied with the overall performance of the graduates, especially with of those having required individual and teamwork skills.

The performance of the TVET graduates at the work place is to the acceptable level for the employers. Employers are found willing to hire TVET graduates and further emphasized to provide training as per labour market needs and required standard. Employers have the opinion to make four-year diploma programs, including one additional year of workplace training packages for better performance. They also urged to revise the curriculum to address new and emerging technologies.

Practical opportunity is inadequate in both Diploma and TSLC level programs. Therefore, the graduates are not much confident to perform the work even if they get the job. Hence, despite acceptance of job performance level of the graduates by the employers, there is a need for the graduates to improve their skills.

Quality and Relevance of TVET Programs
It was found that the graduates are lacking skills due to inadequate practical opportunities. Time provided for practicing skill is inadequate in most of the programs in private institutes. There is a need of substantial improvement on workshop and lab equipment. Ample opportunities need to be provided for practice and industrial attachment. Periodic revision of curricula is also needed to make the programs relevant and practical-based to address the latest trend/demand of labor market.

Lack of job opportunities in the job market is revealed as the main reason for unemployment. This indicates the lack of relevance of the training programs to the job market. And, this also indicates the need for updating its programs to prepare the human resource according to the skill demand of the job market. 'Lack of linkage with the employers', and 'inadequate technical and other soft skills' were the other reasons for them being unemployed.

Conclusions and Recommendations
Conclusions
TVET programs of CTEVT have been contributing to the employment and overall economic growth of the country and they need to be further strengthened. However, the employment percentage is comparatively low. Therefore, there is a high need to strengthen the linkage with the industry and job market and also review the programs to address the changing market needs. Practical opportunities for the participants are inadequate especially in private institutes as specified in the curriculum. Effective monitoring mechanism has to be established and implemented to ensure the effective implementation of the curriculum.

Overall income and earning of the employed graduates was satisfactory. Not only the graduates but the employers are also happy and satisfied with their employees' job performance although some additional skills and knowledge are required for the TVET graduates. Hence, it can be concluded that TVET programs of CTEVT have helped to improve the economic life of the targeted group to some extent.

Recommendations

- It is recommended to conduct labour market studies in a periodic manner to identify the changing needs of the labour market. Consequently, it is also recommended to review the curricula to cater to the market demands.
- Recommended to ensure that effective monitoring is carried out to ensure that the curriculum is fully implemented, especially to ensure adequate practical opportunities for the students as envisaged by the curriculum. It was found lacking, especially in private institutes.
- Recommended to carry out the tracing of the graduates by each training institute on a regular basis to update the market demand and course updating.
- Linkage between training institutions and industries or employers should be strengthened so that the TEVT program is offered according to human resource demand of the employers.
- It is recommended to establish functional placement and counseling unit or any other such mechanism in each training institute and in CTEVT as well to support its graduates linking with job market.
- It is recommended to assess the necessity of on-the-job training (workplace practice) provision by subject experts. For the existing TSLC programs with OJT provision, it is also recommended to ensure that the graduates get opportunity of working in the related job during the OJT. Developing a roaster of potential organizations for OJT placement in each program would be instrumental.

SECTION I: INTRODUCTION

1.1 Background/Rationale

Council for Technical Education and Vocational Training (CTEVT) has been carrying out three-year Diploma level courses since 2058 B.S. Presently, almost 530 institutes are running under CTEVT. Out of them, 110 institutions are running PCL Nursing programs, 47 are running General Medicine (HA) programs, 38 are running Civil Engineering programs and so on. A large number of students have already been graduated from these programs. However, lack of effective and reliable study, information of whereabouts of these graduates is still limited within speculation (CTEVT, 2073).

CTEVT has been running long-term and short-term training programs of vocational nature under the trades of Health, Agriculture and Construction since its establishment. Gradually it elaborates its activities not only in geography but also in nature and sectors or trade. Presently, it caters to both long- and short-term vocational programs as well as three-year Diploma as an academic program. The broader objective of CTEVT is to make a significant contribution to employment creation or poverty reduction in the country either by preparing graduates as per the employment needs of the country or by making them capable enough to create new employments (self-employment). CTEVT should, therefore, be well-informed about the employment status of its graduates as well as the changing needs of the labour market. Although this tracer study cannot be the substitute for labour market study; it can provide a great deal of information in this aspect.

Since monitoring, supervision and evaluation are three crucial aspects of quality control, like any other evaluation, this tracer study is also an evaluation which explores its importance in various ways. It provides realistic expectations concerning what a program can and cannot do: it can provide information to program administrators and employees concerning the ways to improve their services and it can aid policy makers in determining basic changes in program structure or funding, and finally it can be used as political ammunition to attack or defend a program.

The quality of training programs should be viewed not only in the examination score but also on employability of its graduates. This concept of evaluation is further relevant to the case of TEVT graduates. Thus, the tracer study should be made an inextricable function of CTEVT which provides the status of employability of its graduates and more realistic signals of labour market.

Anecdotes say that the floods of youth, who want to enroll in CTEVT's training programs, are decreasing year by year. This arises two possibilities, whether the supply capacity doesn't dovetail with the labour market needs or the graduates of these institutes are below the quality threshold. The tracer study gives valuable information regarding these issues and sketches a way out for future programs.

Tracer study is a major evaluation tool to measure both effectiveness and quality of training programs. Outcome and impact of any type of training programs are not constant over time. Fluctuations of such impacts can occur and be observed in the labour market. This tracer study is, therefore, an essential technique to get information about periodic fluctuations of both employability of graduates and demand of labour market. It also provides crucial information for policy makers or planners whether to continue or modify or terminate the existing training programs.

The follow-up research or tracer study has significant importance as an evaluation strategy. However, there are some specific considerations to make the result more valid and reliable. In this regard, Flaherty and Morell, 1978[1] have argued that if follow-up techniques are to be used to their fullest potential, it is necessary to consider the unique nature of evaluation as a form of social research. Basically, tracer study must be guided by the two principles. First, data bear a heavy responsibility for generating information on the value and validity of what has been found. Second, tracer study can't be interpreted in isolation from knowledge which is gained from a multiplicity of sources that are external to the research itself (Morell, 1978)[2].

Therefore, the main objective of this tracer study was to trace the graduates not only to find out their whereabouts but also to get the information on activity status to make sure that the knowledge and skills of individuals learned during the training are in use. This can be verified by their post-training information. The information gathered for the tracer study is not only applicable to identify the employment status of graduates but also to analyze or update the demand of labour market.

1.2   Objectives of the Study

The major objective of the study was to trace the graduates to find out their employment status as well as their income and performance level at the workplace. The other specific objectives of the study were as follows:

- Identify the employment status of graduates of the Diploma and TSLC level programs;
- Analyze the workplace performance level of the employed graduates;
- Spell out the determinants of employability and efficiency for such graduates;
- Suggest the measures to promote the quality of TVET programs, thereby enhancing employability and efficiency of graduates;
- Understand the different ways in which graduates learn about labor market opportunities and transition to employment;
- Perform the above analyses disaggregated by socio-economic characteristics and locational factors (e.g., rural vs. urban).

1.3   Scope and Limitations of the Study

This tracer study covers eight Diploma level programs and equal number of TSLC level programs. The eight Diploma level programs covered are: 1. Proficiency Certificate in Nursing 2. Diploma in General Medicine 3. Diploma in Pharmacy 4. Certificate in Medical Laboratory Technology 5. Diploma in Civil Engineering 6. Diploma in Electrical Engineering 7. I. Sc. Agriculture in Plant Science and 8. Diploma in Computer Engineering. Similarly, the eight TSLC level programs are: 1. Community Medicine Assistant (CMA) 2. Auxiliary Nurse Midwifery (ANM) 3. Medical Lab Assistant 4. Civil Sub-overseer 5. Electrical Sub-overseer 6. Veterinary-Junior Technical Assistant (V-JTA) 7. Basic Surveying and 8. Junior Computer Technician.

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[1] Flaherty, E. W., and Morell J. A. 1978. Evaluation: Manifestation of a New Field. Evaluation and Program Planning 1: 1-10

[2] Morell, J. (1978). Follow-up Research as an Evaluation Strategy (Theory and Methodology). Handbook of Vocational Education Evaluation.

The trainees who had graduated in 2013 from the sampled institutes were the total population, out of which valid and reliable sample size was drawn as specified in the methodology.

Sudden natural disaster, i.e. the devastating earthquakes of 12 and 29 Baishakh 2072 BS (25 April and 12 May 2015 AD), and the unexpected and undeclared blockade in the southern border area that caused big trouble in data collection, have also been considered as the limitations for this study. Therefore, the study team could not reach all the proposed target graduates. Likewise, training institutes were selected purposively so as to cover all parts of the country, which is also considered as another limitation.

In case of Diploma level graduates, they had shorter period for searching employment, so this may not perfectly represent the real employment status due to smaller time gap between graduation and employment tracing. The time gap was only about six months for the 068 batch. Due to this, the gap for getting the job was shorter. However, in case of the TSLC level, due to the sufficient gap between the graduation and the tracing, the employment might be realistic.

The gap in case of the Nursing course was only about six months due to the council exam. In other Diploma programs, the time gap was 8/9 months which seems adequate for maturity for the employment tracing.

The study is conducted at the time of extreme recession phase of national economy caused by the devastating earthquake and border blockade. Therefore, under such circumstances the employment rate of graduates in this study may have been more underestimated than in regular/ normal situation.

1.4   Institutional Arrangements to Conduct the Study

This tracer study is designed and conducted by Research and Information Division of CTEVT by outsourcing an expert group where high level skills is needed, from a consulting firm named Accountability Initiative Private Limited. The primary data were collected by mobilizing the internal staff of CTEVT, whereas the qualitative data collection was done by external expert group of the consulting firm. For collecting post-training information of the graduates, priority was given to face to face interview. For this, two data collection teams were mobilized in the eastern and the western parts of the country. Likewise, individual enumerators were assigned for data collection at the Kathmandu Valley and its neighboring districts. All of the related institutes had also facilitated the whole data collection activities by providing the contact information of the graduates. Moreover, some institutes also gathered the selected graduates in the respective institutes at the time of data collection.

Besides the above mentioned quantitative data, qualitative data were also collected from employers, teachers and managers at institution level. Similarly, the members of professional associations were also interviewed about the employment status in their respective professions.

1.5   Study Design and Methodology

The methodology adopted for this study was mainly quantitative; however, various qualitative approaches were also adopted while conducting the study. This tracer study mainly deals with the post-training information about the graduates, which is collected by means of survey of the graduates. However, workplace performance level of the employed

graduates was also a concern of this study which requires both quantitative and qualitative types of information. Focus group discussion and key-informants' interviews were also the basic tools for getting qualitative information which is explained in brief in the following topics. As explained in the previous topic (Scope of the Study), graduates of eight diploma level programs and an equal number of TSLC level programs, graduated in 2013 are covered in this study.

Two sets of questionnaires were designed to collect the post-training information about the graduates: one was for the graduates and the other one was for the employers of the graduates who are in paid employment. Most of the graduates were interviewed face to face, whereas telephone interview was also conducted to take the information from the graduates if face to face interview was not possible. The survey questionnaire includes both status and opinion types of questions. In the case where both face to face and telephonic interviews were not possible, limited amount of post-training information (status type of questions) was also collected from third sources like their teachers, guardians, friends, etc.

The proposed sample size of graduates was 3,263 (1,623 from Diploma level programs, and 1,640 from TSLC level programs). The political unrest and unexpected *nakabandi* (blockade) at the border areas made data collection from the intended sample of graduates difficult. Therefore, only 1,110 graduates from Diploma level programs and 899 graduates from TSLC level programs (total 2,009) were traced for the study.

The total number of graduates in the selected eight Diploma level programs in the academic year 2013 was 7,114. Similarly, the number of TSLC graduates in the selected eight TSLC programs in the corresponding year was 5,694. In total, 1,110 and 899 graduates respectively from Diploma level programs and TSLC level programs were traced during the field visit taking 99% confidence level and below 5% margin of error. The details of population, sample (traced graduates), confidence level and margin of error for each of the selected programs are presented in the Table 1.1.

Table 1.1: Sample, Population and Sampling Criteria

SN	Name of Levels and Programs	Institutes		Graduates		Sampling Criteria	
		Total	Selected	Total	Traced	CL	ME
	Diploma Level Programs						
1	Proficiency Certificate in Nursing (Staff Nurse)	96	47	3,492	321	95	5.21
2	Certificate in Medical Laboratory Technology	46	34	1,034	217	95	5.92
3	General Medicine (HA)	45	34	1,230	183	95	6.69
4	Diploma in Civil Engineering	31	24	489	128	95	7.45
5	Diploma in Pharmacy	26	21	509	107	95	8.43
6	Diploma in Computer Engineering	16	5	95	15	95	23.34
7	Diploma in Electrical Engineering	11	7	146	37	95	13.97
8	I. Sc. Agriculture in Plant Science	6	6	119	102	95	3.69
	Total	**277**	**178**	**7,114**	**1,110**	**99**	**3.56**

SN	Name of Levels and Programs	Institutes		Graduates		Sampling Criteria	
		Total	Selected	Total	Traced	CL	ME
Technical SLC Level Programs							
1	Community Medicine Assistant	76	60	2,636	251	95	6.37
2	Auxiliary Nurse Midwifery	45	43	999	261	95	5.22
3	Civil Sub-overseer	17	12	560	63	95	11.64
4	Electrical Sub-overseer	6	3	70	17	95	20.83
5	Veterinary Junior Technical Assistant	21	9	503	77	95	10.29
6	Basic Surveying	8	8	158	68	95	9.00
7	Medical Lab Assistant	28	22	693	155	95	7.00
8	Junior Computer Technician	8	2	75	7	95	35.35
	Total	**209**	**159**	**5,694**	**899**	**99**	**4.04**

Note: CL = Confidence Level, ME = Margin of Error
Source: CTEVT, Controller of Examination, Administrative Data

The program-wise sampling validity is also presented in the Table 1.1, where confidence level is considered 95% for all programs, but margin of errors was considered differently for different trades. Out of the total 16 programs, the size of sample taken for Diploma in Computer Engineering, Diploma in Electrical Engineering, Electrical Sub-overseer and Junior Computer Technician are not that much strong to claim the statistical validity of the result in the form of disaggregated findings. In these trades, the margin of errors is considered far greater than that generally considered in sampling; however, it provides signals to speculate the general demand situation.

The study instruments were pre-tested with 50 graduates randomly selected mainly from the Kathmandu Valley. Feedback received from pre-testing was helpful to minimize ambiguities, enhance clarity and increasing internal consistency and reliability of the study instruments. Necessary reviews on the questionnaires were made after consultation with client and proper scrutiny of the feedback received from pre-testing.

1.5.1 Approaches of Data Collection
The main data collection instruments included were field survey using semi-structured questionnaire for graduates and rating scale type of questionnaire for employers. Likewise, semi-structured interview checklists were used to interview key informants.
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The questionnaires were developed around the key variables of investigation of: employment situation of graduates, employment rate in both formal and informal sectors, relevance and effectiveness of learning in the institutions, waiting time to get first employment, employers' satisfaction with regard to graduates' skills, skills gap and performance level and possible networking opportunities between industries and training institutions.

1.5.2 Data Analysis and Report Writing
The data collected from more than 2,009 graduates were first coded, and then entered into the specially designed format in SPSS (Statistical Program for Social the Sciences). After completing the data entry, some inconsistencies were revised and incomplete questionnaires

were omitted during the data cleaning process. In total, 2,009 complete sets of questionnaires were included in the analysis.

Some qualitative information in the questionnaires was analyzed using cross tabulation and frequency tables. Similarly, five-point Likert scale with responses "Excellent", "Very Good", "Good", "Poor" and "Very Poor" and another 4-point Likert scale with responses "Very Relevant" "Relevant" "Not Much Relevant" and "Completely Irrelevant" were used to collect the responses of the graduates about the quality and relevance of the TVET programs that they received. This information was analyzed calculating means and standard deviation considering the weightage of the points from 1 - 5, 1 - 4, and 1 - 3.

In the quantitative data analysis, tools like frequencies, cross tabulations, mean comparison were basically used. In addition to these analytical tools, ANOVA, Chi-square and t-Test were also considered as per the nature of data and necessity of analysis.

SECTION II: DATA PRESENTATION AND ANALYSIS

The analysis in this Tracer Study Report is based on the quantitative data collected from two semi-structured questionnaires; one was designed to collect information from graduates and the other was designed for employers' interview. Besides, some qualitative data were also gathered from principals, teachers and members of related professional associations either by conducting their in-depth interview or by Focus Group Discussion (FGD) among themselves. These analyses are also enriched by other sources of information including literature review and some advance statistical analysis. Attempt is made to organize the analysis with respect to the study objectives. Although employment status and income level of graduates are the major focus areas of analysis, this report also attempts to provide brief overview on respondents' profile, quality and relevance of the TVET programs, proficiency and satisfaction level of the employed graduates and early impact of the TVET programs. Moreover, analysis in this report also concentrates to spell out and explore the factors that can affect the quality of the TVET programs.

The analyses of this tracer study are organized in the five thematic sections which are (a) Profile of Respondents (Graduates' and Employers' Profile) (b) Employment Status of Graduates (c) Income Level of the Graduates, (d) Proficiency and Satisfaction Level of the Graduates and (e) Issues Related to the Quality and Relevance of TVET Programs. Based on the analysis presented in this section, the next section presents the findings, followed by implications and institutional reforms and recommendations.

2.1 Graduates' Profile

As mentioned earlier, the sampling for this study was conducted in two stages. At the first stage, institutes were selected purposively covering all geographical and development regions of the country as far as possible. In the second stage, graduates were listed out of these institutes and statistically representative sample size was drawn based on the criteria as mentioned in methodology section. Since the previous classification as per the five development regions is no more relevant after executing the Constitution of Nepal 2072 B.S. (2015 A.D.), analysis in this report is also made accordingly.

2.1.1 Gender of the Graduates

Of the total 2,009 traced graduates of sixteen different TVET programs, 55.5% were female and 44.5% were male. However, the programs such as Proficiency Certificate in Nursing (Staff Nurse) and Auxiliary Nurse Midwifery are accessed only for female. If we exclude these two trades, the corresponding percentage of female and male becomes 37.4% and 62.6% respectively. Excluding these two female-friendly programs, female representation in this survey was found highest (62.3) in TSLC Medical Lab Assistant program followed by Community Medicine Assistant (58.2%) and Certificate in Medical Lab Technology (53.9%). Unlike these three programs, participation of female is comparatively lower in engineering-related programs. As an example, participation of female is nil in Diploma in Electrical Engineering, followed by 5.9% in Electrical Sub-overseer and 13.2% in Basic Surveying. The detailed figures of gender-wise distribution of the traced graduates together with its corresponding proportion are depicted in Table 2.1.

Table 2.1: Gender of the Respondents

SN	Name of Programs	Gender of the Respondents		Total
		Male	Female	
1	Diploma in Civil Engineering	109(85.2%)	19(14.8)	128(100)
2	Diploma in Computer Engineering	13(86.7)	2(13.3)	15(100)
3	Diploma in Electrical Engineering	37(100)	0	37(100)
4	Proficiency Certificate in Nursing		321(100)	321(100)
5	Diploma in General Medicine	138(75.4)	45(24.6)	183(100)
6	Diploma in Pharmacy	71(66.4)	36(33.6)	107(100)
7	I. Sc. Agriculture in Plant Science	72(70.6)	30(29.4)	102(100)
8	Certificate in Medical Lab Technology	100(46.1)	117(53.9)	217(100)
9	Community Medicine Assistant (CMA)	105(41.8)	146(58.2)	251(100)
10	Auxiliary Nurse Midwifery (ANM)		261(100)	261(100)
11	Medical Lab Assistant	58(37.4)	97(62.6)	155(155)
12	Veterinary Junior Technical Assistant	57(74)	20(26)	77(100)
13	Civil Sub-overseer	54(85.7)	9(14.3)	63(100)
14	Electrical Sub-overseer	16(94.1)	1(5.9)	17(100)
15	Basic Surveying	59(86.8)	9(13.2)	68(100)
16	Junior Computer Technician	5(71.4)	2(28.6)	7(100)
	Total	**894(44.5)**	**1,115(55.5)**	**2,009(100)**

Note: Figures in parenthesis indicate the row percentage.

2.1.2 Provincial Distribution of Respondents

The Table 2.2 depicts the distribution of respondent graduates as per their home address which may be different than the address of their institutions. Of the total 2,009 respondent graduates, larger majority (23.7%) were from Province One, followed by Province Five (22.6%) and Province Seven (20.9%). Likewise, 12.7% were represented from Province Three, 9.0% from Province Four and 5.6% from Province Six.

Table 2.2: Provincial Distribution of Number of Graduates

SN	Province	Frequency	Percentage	Cumulative Percentage
1	Province One	476	23.7	23.7
2	Province Two	110	5.5	29.2
3	Province Three	256	12.7	41.9
4	Province Four	180	9.0	50.9
5	Province Five	455	22.6	73.5
6	Province Six	113	5.6	79.1
7	Province Seven	419	20.9	100.0
	Total	**2,009**	**100.0**	

Source: Field Data, CTEVT, 2015/16

2.1.3 Ethnicity of Respondents

Graduates are also categorized into eight broad ethnic/caste groups. On the total, majority of the traced graduates were from Hill Brahmin/Chhetri group, which occupies 58.1% of the pie followed by Hill *Janajati* (21.5%) and *Terai Janajati* (10.7%). Rest of the ethnic groups,

such as Hill *Dalit*, *Terai Dalit*, Madhesi Middle Caste and Muslim have found very negligible representation in the sample, which is more or less similar to the real situation.

Table 2.3: Caste Group/Ethnicity of the Traced Graduates

SN	Caste Group/Ethnicity	Number of Graduates	Percentage
1	Hill Brahmin/Chhetri	1,168	58.1
2	Terai Brahmin/Chhetri	11	0.5
3	Hill Dalit	46	2.3
4	Tarai Dalit	33	1.6
5	Hill Janajati	432	21.5
6	Terai Janajati	214	10.7
7	Madhesi Middle Caste	100	5.0
8	Muslim	5	0.2
	Total	**2,009**	**100**

Source: Field Data, CTEVT, 2015/16

2.1.4 Age of the Respondents

Since the collection of information was not possible by interviewing all the selected graduates personally, information of some 464 graduates was, therefore, collected either from TTPs or some other secondary sources and the analysis of all aspects does not cover all 2,009 graduates. Information about the age of the respondents was obtained only of those graduates who were interviewed either personally or by telephone. The average age of the respondents was 23 years, with 17 years minimum and 49 maximum. The group of respondents is found homogeneous since the standard deviation is almost 4, which means almost 66% of the respondents were between 18-27 years of age. The Table 2.4 and the Chart 2.1 reflect the total distribution of the respondents.

Chart 2.1: Histogram of Age of Respondents
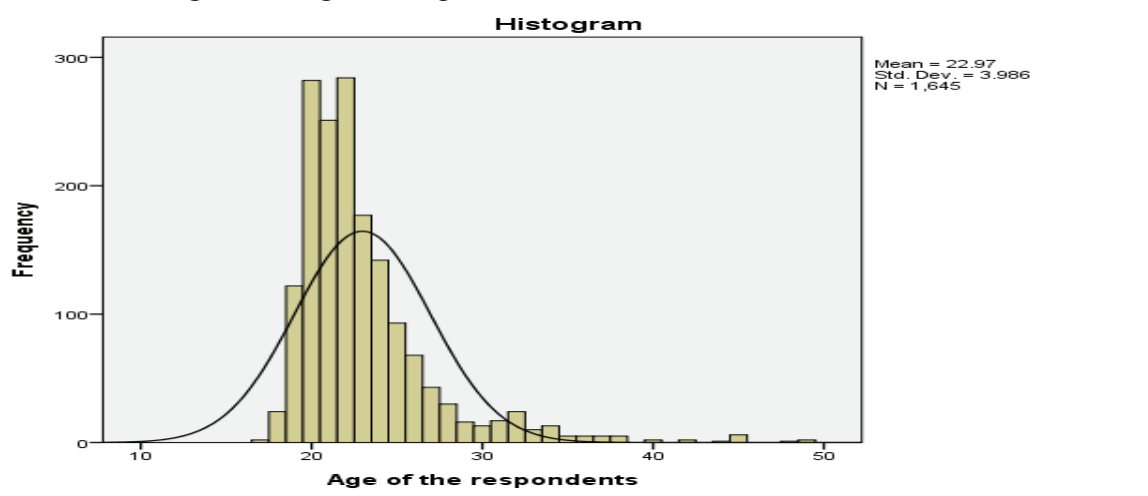
Table 2.4: Age Group of the Graduates (in years)

	Number of	Minimum Age	Maximum Age	Mean Age	Standard Deviation (Deviation from Mean)
Age of the Graduates	1645	17	49	22.97	3.987
Valid N (list-wise)	1645				

2.1.5 General Profile of the Employers

Besides post-training information about the graduates, information about the performance level of the graduates was also collected from the respective supervisors or employers of the wage-employed graduates. Despite previous plan to interview 33% of the employers of the paid employed graduates, only 35 employers could be contacted and interviewed because of the political unrest, difficult situation of the country due to the earthquake and undeclared stumbling blockade in the southern border. The large majority (62.86%) of the employer organizations were private sector organizations followed by government organizations (20%), NGOs (11.43%) and Cooperatives (5.71%). The detailed breakdown of the employer organizations based on the nature of their ownership is presented in the Table 2.1 below.

Table 2.5: Employer Organizations by Legal Status

SN	Nature of Organization	Number	Percentage	Remarks
1	Government	7	20.00	
2	Non-government	4	11.43	
3	Private	22	62.86	
4	Co-operative	2	5.71	
	Total	**35**	**100**	

The employer organizations are also classified on the basis of economic sectors. In this classification, the vast majority (77.15%) of the employer organizations were accumulated under Health and Social Service Sector, followed by Education Sector 11.43%, Agriculture Sector (2.86%) and Construction 2.86%. Of the total interviewed 35 employers, none were from Manufacturing Sector. The details of the sector-wise distribution are depicted in the Table 2.6 below.

Table 2.6: Employer Organizations by Economic Sector

SN	Sector of Employer	Number of Employers	Percentage	Remarks
1	Agriculture	3	8.57	
2	Construction	1	2.86	
3	Education	4	11.43	
4	Health and Social Service	27	77.15	
	Total	**35**	**100**	

2.2 Employment Status of the Graduates

This topic includes the analysis on employment status of graduates among various groups including the types and nature of employment, transition periods, and the role of soft skills for getting employment. Although information regarding employment status was gathered from all 2,009 traced graduates, other information of those graduates whose employment status was gathered from secondary sources was missing.

2.2.1 Employment Status of the Graduates

Out of 2,009 graduates contacted, 982 (49%) were found employed, 928 (46%) were still unemployed, and the rest 99 (5%) graduate students were working as volunteers. The largest number of employed graduates is from Proficiency Certificate in Nursing program followed by Certificate in Medical Lab Technology. Similarly, the largest number of graduates who are working as volunteers is also from Proficiency Certificate in Nursing program. Out of 321 graduates in Proficiency Certificate in Nursing program, 157 (49%) graduates are

employed, while 133 (41%) graduates and 31(10%) graduates are unemployed and are working as volunteers respectively (Table 2.7). Interview with the institutional officials revealed that in case of the Nursing program, if the institutes have some link or connection with large hospitals, relatively a greater number of graduates of the institute are employed or can get employment. The study reveals that the employment rate is the highest (65%) in the Certificate in Medical Lab Technology among the eight Diploma programs traced out. On the contrary, the employment rate is the lowest (30%) in Diploma in Civil Engineering. However, the percentage of graduates either in education or in employment is 74.1%, and the percentage of graduates either in employment or engaged in education in Diploma in Civil Engineering program is 82% with 105 graduates (Annex-2).

Table 2.7: Employment Status of Graduates by Programs

SN	Level of Program	Employed		Unemployed		Engaged as Volunteer		Total
	Diploma Level	No.	%	No.	%	No.	%	
1	Diploma in Engineering	38	30	90	70			128
2	Diploma in Computer Engineering	5	33	10	67			15
3	Diploma in Electrical Engineering	21	57	15	41	1	3	37
4	Proficiency Certificate in Nursing	157	49	133	41	31	10	321
5	Diploma in General Medicine (HA)	89	49	84	46	10	5	183
6	Diploma in Pharmacy	52	49	46	43	9	8	107
7	I. Sc. Agriculture in Plant Science	57	56	41	40	4	4	102
8	Certificate in Medical Lab Technology	141	65	68	31	8	4	217
	Total	**560**	**51%**	**487**	**44%**	**63**	**5%**	**1,110**
	TSLC Level							
9	Community Medicine Assistant	120	48	122	49	9	4	251
10	Auxiliary Nurse Midwifery	121	46	124	48	16	6	261
11	TSLC in Lab Technology	64	41	81	52	10	6	155
12	Veterinary JTA	52	68	25	32			77
13	TSLC in Civil Engineering	30	48	32	51	1	2	63
14	TSLC in Electrical Engineering	11	65	6	35			17
15	TSLC in Survey Engineering	19	28	49	72			68
16	TSLC in Computer Engineering	5	71	2	29			7
	Total	**422**	**47%**	**441**	**49%**		**4%**	**899**

Source: Field Data, CTEVT, 2015/16

This reveals that a significant number of graduates in Diploma in Civil Engineering program are studying higher education. The number and percentage of graduates either in employment or engaged in education in each program and by program level are given in Annex-2 and Annex-3 respectively. Employment opportunity may scale up after the reconstruction work expedites. Likewise, employment rate seems the highest (71%) in

Computer Engineering followed by Veterinary Junior Technical Assistant (68%) among the TSLC programs. However, it is difficult/ unwise to conclude that the highest employment rate among TSLC programs is in Computer Engineering only based on a very small number (7) of graduates traced out.

In the same way, out of the 15 graduates traced from Diploma in Computer Engineering program, 5 (33%) graduates are employed. The following Table 2.7 depicts the number and percentage of the graduates from eight Diploma level programs and eight TSLC level programs with their employment status (either employed or unemployed or engaged as volunteers in their respective training areas).

Out of 1,110 traced graduates of Diploma level programs, 560 (50.5%) were employed, while 487 (43.9%) were unemployed, and only 63 (5.7%) were engaged as volunteers. Normally, those who were working as volunteers were expected to be in employed status after completing their volunteering terms. But, as reported by the traced graduates, they do not automatically get the job after volunteer service agreement is over. They will have to sit in for competition when job vacancies are opened. There is no guarantee that they will get the job. So when they are turned down, they will have to go to another organization as volunteers. However, the graduates working as volunteer are given preference when vacancy is announced in the same organization.

Likewise, 422 (46.9%) of the traced graduates of TSLC level programs were employed, and 441 and 36 graduates were unemployed and working as volunteers respectively.

Comparing the employment status between the Diploma level graduates and TSLC level graduates, more graduates of TSLC level program were unemployed, and more graduates of Diploma level program were engaged as volunteers. According to qualitative information obtained during the field visit, the TSLC level graduates of Health trade (i.e. ANMs and CMAs) are being replaced by Diploma level graduates such as Staff Nurse and Health Assistant. In the job also employers are ready to take Diploma level graduates than TSLC level graduates, because the formers have more skill and knowledge than the graduates of TSLC level. Due to this, TSLC graduates are losing job opportunities. Staff nurses are working for the salary of ANM. However, in private sector, CMAs/ANMs are working in position of staff nurse. The following Table 2.8 represents employment status of traced graduates by level of programs.

Table 2.8: Employment Status of Traced Graduates by Levels of Programs

SN	Status	Employment Status			Total
		Employed	Unemployed	As Volunteer	
1	Diploma Level	560(50.5)	487(43.9)	63(5.7)	1,110 (100)
2	TSLC Level	422(46.9)	441(49.0)	36(4.0)	899 (100)
	Total	**982(48.9)**	**928(46.2)**	**99(4.9)**	**2,009 (100)**

Note: Figures in parenthesis indicate the row percentage.
Source: Field Data, CTEVT, 2015/16

Regarding trade-wise employment status of the TVET graduates, the largest numbers of both employed and unemployed graduates were in Health trade (744) and (658) respectively, followed by Engineering trade that had129 (38.5%) employed graduates and 204 (60.9%) unemployed out of 335 graduates traced. Similarly, the highest number of graduates (93) working as volunteers was also from Health trade. Table 2.9 shows the trade-wise number of graduates who are either employed or unemployed and are working as volunteers.

Table 2.9: Trade-wise Employment Status of Graduates

	Trade Group	Employment Status			Total
		Employed	Unemployed	As Volunteer	
1	Engineering Group	129(38.5)	204(60.9)	2(0.6)	335(100)
2	Health Group	744(49.8)	658(44)	93(6.2)	1,495(100)
3	Agriculture Group	109(60.9)	66(36.9)	4(2.2)	179(100)
	Total	**982(48.9)**	**928(46.2)**	**99(4.9)**	**2,009(100)**

Note: Figures in parenthesis indicate the row percentage.
Source: Field Data, CTEVT, 2015/16

During field visit, it was observed that there were cases of Staff Nurses who were compelled to work as volunteer for six months to one year. They have to work either as volunteer or to work for the salary of ANM, which is one level lower status job, even after completing volunteering service agreement. It was also found that Staff Nurses are underpaid with up to NRs. 4,500. Remuneration in private hospitals is low.

Looking at the employment status of TVET graduates among the seven Provinces of the country, Province Five had the highest number and rate of employed TVET graduates where 256 (56.3%) are employed. Then comes Province One with 255 (53.6%) employed graduates. In case of unemployed TVET graduates, Province Seven had the highest number and rate of unemployed graduates (259) among the traced graduates followed by Province One with 194 unemployed graduates. Unemployment rate of TVET graduates in Province Seven is 61.8%. Similarly, Province Five had the highest number of graduates (29) working as volunteers. Then comes Province One with 27 graduates working as volunteers. The following Table 2.10 represents the status of employment of traced TVET graduates in each of the seven provinces.

Table 2.10: Province-wise Employment Status of TEVT Graduates

SN	Name of Province	Employment Status			Total
		Employed	Unemployed	Volunteers	
1	Province One	255 (53.6)	194(40.8)	27(5.70)	476(100)
2	Province Two	56(50.9)	53(48.2)	1(0.9)	110(100)
3	Province Three	123(48)	113(44.1)	20(7.8)	256(100)
4	Province Four	81(45)	84(46.7)	15(8.3)	180(100)
5	Province Five	256(56.3)	170(37.4)	29(6.4)	455(100)
6	Province Six	56(49.6)	55(48.7)	2(1.8)	113(100)
7	Province Seven	155(37)	259(61.8)	5(1.2)	419(100)
	Total	**982(48.9)**	**928(46.2)**	**99(4.9)**	**2,009(100)**

Note: Figures in parenthesis indicate the row percentage.
Source: Field Data, CTEVT, 2015/16

2.2.2 Types of Employment

The employed graduates were engaged in two types of employment: full-time and part-time. 842 (85.7%) of the traced employed graduates were engaged in full-time job, while 140 (14.3%) had part-time job. Although 14.3% of the employed graduates had part-time employment, they were quite content with their part-time employment because, according to them, they could take 2-3 part-time jobs at a time which leads to quite good earning.

Chart 2.2: Distribution of Graduates in Employment
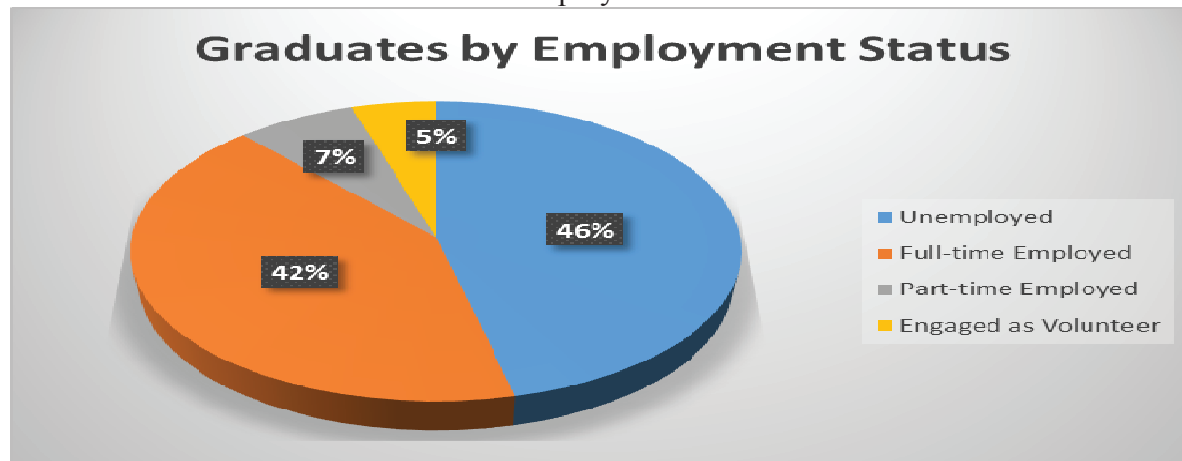
Source: Field Data, CTEVT, 2015/16

During the field visit, it was known that Lab Assistants/Technicians were working only on hourly basis. Despite this, they were happy to work on hourly basis because they could be engaged in another work for rest of the time. Table 2.11 shows the number of graduates involved in different types of employment.

The Chart 2.2 also depicts the present status of respondents in terms of total figure. Of the total 2,009 traced graduates, 46% were unemployed, followed by full-time employed 42%, part-time employed 7%, and 5% were engaged as volunteer.

2.2.3 Nature of Employment

The traced TVET graduates were engaged either in self-employment or wage employment in formal sector. Some were also engaged in wage employment in informal sector and/or employed abroad. Of the employed graduates, the majority (704 or 71.7%) were in wage employment in formal sector. The number of graduates involved in self-employment (177 or 18%) is also remarkable. Observation in the field and qualitative information revealed that the graduates especially of TSLC level programs, who were involved in self-employment, were mostly from Agriculture: Veterinary Junior Technical Assistant, and Lab Technician trades. Some of the graduates shared that the Veterinary Junior Technical Assistant (TSLC level) is a highly employable trade and most of its graduates are employed. It was also found that the graduates of VJTA and Plant JTA programs were engaged in family business in the same field and a significant number of graduates were employed.

After the government's decision to permit only pharmacists to establish clinics, the graduates have opened their own clinics. It was also found during the field visit that some Diploma level graduates of General Medicine (HA) program were self-employed in the clinics connected with the pharmacists, while some others were employed in NGOs and INGOs. Monthly earning of a pharmacist falls in the range of NRs. 15,000 to NRs. 30,000.

In the engineering field the graduates were found working as contractor, and on part-time basis. It was also revealed that there is a greater possibility of engineering graduates to get jobs in the earthquake-affected 14 districts as the reconstruction is being started in those regions. Normally their monthly salary range is from NRs. 15,000 to NRs. 30,000. Their salary range in INGOs even exceeds this.

There is no specified employment opportunity available in Computer Engineering trade. It was found that very few Computer Engineering graduates are wage employed. Some graduates have established computer parts/items selling business and are self-employed. Some of them are engaged in developing software, such as accounting software. Very few graduates are employed as trainer as well. Table 2.11 shows nature of employment and the numbers of graduates involved.

Table 2.11: Nature of Employment

SN	Nature of Employment	Frequency	Percentage	Remarks
1	Self-employment	177	18.0	
2	Wage employment in formal sector	704	71.7	
3	Wage employment in informal sector	84	8.6	
4	Foreign employment	17	1.7	
	Total	**982**	**100.0**	

4.2.4 Means for Getting Employment

The study team also wanted to look into the approach that helped the graduates find employment. A total of 263 graduates got employment through taking part in the selection competition, while 210 used personal networking to get employment. Graduates' family relationship also helped them to get employment. Door to door visit for job hunting was used by very few graduates. Table 2.12 below indicates the approaches along frequency, percentage and valid percentage, through which the graduates got employment with.

Table 2.12: Approaches Used by Graduates to Acquire Employment

SN	Means for Getting Employment	Frequency	Percentage	Valid Percentage
1	Door to door (job hunting)	56	2.8	7.0
2	Media advertisement and notice	140	7.0	17.5
3	Technical training provider helped	64	3.2	8.0
4	Selected from competition	263	13.1	32.8
5	Family relationship	68	3.4	8.5
6	Personal networking	210	10.5	26.2
	Sub-total	**801**	**39.9**	**100.0**
7	Non-respondent	1,208	60.1	
	Grand Total	**2,009**	**100.0**	

Source: Field Data, CTEVT, 2015/16

2.2.5 Status of Unemployed Graduates

Out of 928 unemployed graduates, 441 were from TSLC level programs and the rest 487 were from Diploma level programs. Among these 928 unemployed graduates, 458 were still searching for job, while 227 went for further study instead of looking for job, because they preferred to pursue higher education to get higher level job rather than sticking to lower level job with their current certificate level. This means, the unemployed graduates of Diploma level programs were pursuing Bachelor's Degree, and graduates of TSLC level programs were going in for Diploma level courses.

Some of the traced graduates have started higher education due to unavailability of job in the field they studied. A significant number of graduates of General Medicine (HA) program of Diploma level are also engaged in further study, mostly in BPH (Bachelor in Public Health).

Likewise, 30 graduates were preparing for public service commission examination, and 19 were preparing to open their own business. Graduates from Lab Technology program and Veterinary Junior Technical Assistant program were willing to open their own business. During the field visit, it was found that some graduates of these two programs had opened their own veterinary clinics and laboratory in small scale and in partnership with 1 or 2 friends from the same program. They were happy with their job/business and the earning. Although the percentage of those graduates who were willing to go for their own business is very small, their effort is very appreciable. The objective of TVET is to prepare youth not only for formal jobs, but for informal jobs as well. These graduates of TVET programs were fulfilling the objectives of TVET. The following Table 2.13 shows the status of the traced unemployed graduates of TVET programs.

Table 2.13: Status of Unemployed Graduates

SN	Present Status of the Unemployed	Frequency	Percentage	Valid Percentage
1	Searching employment	458	22.8	59.6
2	Discouraged due to not finding job	34	1.7	4.4
3	Engaged in further study	227	11.3	29.6
4	Preparing for own business	19	0.9	2.5
5	Preparing for Public Service Commission exam	30	1.5	3.9
	Total Respondents	**768**	**38.2**	**100.0**
6	Not applicable and non-respondent	1,241	61.8	
	Total Graduates	**2,009**	**100.0**	**100.0**

Source: Field Data, CTEVT, 2015/16

2.2.6 Reasons for Unemployment

The study team wanted to find out with the unemployed TVET graduates the reasons for being unemployed. It was quite amazing to know that 72.2 percent of the unemployed graduates who responded to the question reported that because of lack of job opportunities in the job market they had to be unemployed despite having competence in technical and vocational areas in which they were trained. In the same way, 45 of the unemployed graduates indicated that the skill and knowledge that they have received through TVET programs do not match with the required job in the job market. Similarly, as indicated by the respondents, 'lack of linkage with the employers' and 'inadequate technical and other soft skills' were among other reasons for being unemployed. However, 392 out of the 928 unemployed did not respond to the questions. Table 2.14 below depicts, as indicated by the traced unemployed TVET graduates, the reasons for being unemployed.

Table 2.14: Reasons for Unemployment (multiple-response permitted)

SN	Reasons for Unemployment	Responses		Percentage of Cases
		N	Percentage	
1	Lack of job opportunities in the market	387	72.2	78.7
2	Mismatch between skill and required jobs	45	8.4	9.1
3	Due to inadequate technical and other soft skills	20	3.7	4.1
4	Lack of linkage with employer	84	15.7	17.1
	Total	**536**	**100.0**	**108.9**
	Non-respondents	392		

Source: Field Data, CTEVT, 2015/16

In the above data, 387 (72.2% of total respondents) graduates informed that there is no job opportunity in the job market, hence they are unemployed. Because TSLC graduates (i.e. ANMs and CMAs) are being replaced by Staff Nurse and Health Assistant, and Staff Nurses are working in place of and for the salary of ANM. Employers are also ready to take Diploma level graduates rather than TSLC level graduates, then how could the TSLC graduates get the job? Therefore, TSLC graduates are losing job opportunities. In other words, we can say that there are very few job opportunities for TSLC graduates, especially in health sector.

The above responses of the unemployed graduates indicate the issue of relevance of TVET programs to the job market. These statements suggest that it is time that with the changed context, CTEVT should think about changing its programs so that it can prepare the human resource according to the skill demands of the job market.

2.2.7 Relation of Job to the TEVT Program

Although 387 (72.2%) of the unemployed graduates indicated lack of job opportunities in the job market, 939 (95.6%) of the employed graduates reported that the jobs they are currently doing, are related to the training they received from TVET programs. 43 (4.4%) of the employed graduates indicated that the current jobs they are doing are not related to their TEVT programs. In the field visit, it was also found that very few graduates have changed their field of training. For example, an HA graduate was also found working in fishery due to higher earning and already existing profession. Table 2.15 below shows the response of the traced graduates regarding relation of the job with the TVET program they had undergone.

Table 2.15: Whether the Job is Related to the TVET Program

SN	Nature of Job	Frequency	Valid Percentage	Remarks
1	Having training-related job	939	95.6	
2	Not having training-related job	43	4.4	
	Total	**982**	**100.0**	

Source: Field Data, CTEVT, 2015/16

2.2.8 Transition Period between Completion of TVET Program and Job

The study team wanted to find out the time duration that a graduate took to get a job after completing the TVET program (receiving certificate after final examination). Out of 982 employed graduates, 823 graduates responded to this query. According to the respondents, the graduates took about four months to get job after completing the TVET program. Also, according to the FGD with the officials of training institutions, it was revealed that normally, the gap between graduation and employment is around three months. The data in Table 2.16 shows that the graduates got a job after about four months of completing the TVET program. This means they did not have to wait for a long period to get a job. Four months is a reasonable period to wait until one gets a job after completing their study.

Table 2.16: Time Taken by Graduates to Get Job (duration in month)

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Transition Period	823	0	120	8.81	14.472

Source: Field Data, CTEVT, 2015/16

2.2.9 Activities during Transition Period

Out of 2,009 traced graduates, only 709 (35.3 percent) graduates responded when asked about the activities they did after completing the TVET program. The rest 64.7 percent did

not respond to the question. On the basis of their responses, it can be scrutinized that during transition period between completing the TVET program and getting job, 8.3 percent of the total traced graduates preferred to pursue higher education, 3.1 percent were engaged in their own business, while 2.7 percent did volunteer work in the related field of the TVET program. During the field visit, it was found that some of the Staff Nurse graduates were preparing for the exam of the Nursing Council and not doing job. Those who were working as volunteers were mostly from Health and Agriculture trades. However, most of the graduates (21.2 percent) went to look for job. Following Table 2.17 represents the frequency and percentage of the different activities that the graduates did immediately after completion of the TVET program.

Table 2.17: Activities during Transition from Training to Employment

SN	Types of Activities	Frequency	Percentage	Valid Percentage	Cumulative Percentage
1	Searching for employment	426	21.2	60.1	60.1
2	Engaged in further study	166	8.3	23.4	83.5
3	Engaged in own business	63	3.1	8.9	92.4
4	Volunteering	54	2.7	7.6	100.0
	Sub-total	**709**	**35.3**	**100.0**	
5	Non-respondents	1,300	64.7		
	Grand Total	**2,009**	**100**		

Source: Field Data, CTEVT, 2015/16

2.2.10 Holding More than One Job

In response to the query whether the graduates hold more than one job at the moment, 128 (13 percent) out of 982 graduates said that they hold more than one job at the moment. 651 graduates denied holding more than one job at present. Rest of the graduates, i.e. 203 (20.7) out of 982 (excluding unemployed graduates) did not respond to the query.

It was also found that those who said that they were holding more than one job are the graduates doing part-time job. Those graduates doing part-time employment were quite happy with the part-time employment. Because, according to them, they could take 2-3 part-time jobs at a time which gave them quite good earning. Especially graduates from health trade were holding more than one job. Table 2.18 gives frequency and percentage of the responses that show number of graduates holding more than one job at present.

Table 2.18: Graduates Holding More than One Job

S N	Response	Frequency	Percentage
1	Holding more than one job	128	13.0
2	Holding only one job	651	66.3
	Sub-total	**779**	**79.3**
3	Non-respondents	203	20.7
	Grand Total	**982**	**100.0**

Source: Field Data, CTEVT, 2015/16

2.2.11 Soft Skill – How Much Important for Employment?

The graduates were also asked whether any soft skills were instrumental for getting employment or to retain the employment, 452 (55.5 percent) graduates out of 814 responses indicated significance of soft skills for employment. On the contrary, 362 (44.5 percent)

graduates reported that soft skills are not important in employment. And the rest 168 graduates did not respond to this question.

Likewise, communication skill was regarded as the most important soft skill by 295 (39.4 percent) graduates out of 749 respondents. 187 (25 percent) graduates pointed out that an employee should have positive attitude and honesty in employment. In the same way, interpersonal skill as well as English language also plays a vital role in maintaining good performance in employment. 233 graduates did not respond to the question. Table 2.19 indicates the number and percentage of responses on the importance of four different types of soft skills.

Table 2.19: Types of Soft Skills and Their Importance Given by Graduates

S.N.	Types of Soft Skills	Responses		Percentage of Cases (Distribution of 456)
		Number	Percentage	
1	English language	105	14.0%	23.2%
2	Communication skill	295	39.4%	65.1%
3	Interpersonal skill	162	21.6%	35.8%
4	Honesty/ Attitude	187	25.0%	41.3%
	Total	**749**	**100.0%**	**165.3%**
5	Non- respondents	233		

Source: Field Data, CTEVT, 2015/16

2.3 Income Level and Its Variations

The employed graduates were further asked about their income status. Out of the 982 employed graduates, only 814 graduates reported their income level. Large variation was found in the income level among the graduates which ranges from Rs. 4,000 to Rs. 87,000 per month. The average income is found Rs. 15,861.05/month and standard deviation is 11,384. The Table 2.20 depicts the total descriptive statistics of the income level among the graduates.

Table 2.20: Descriptive Statistics of Income Level

Heading	N	Minimum	Maximum	Mean	Std. Deviation
Monthly income	814	4,000	87,000	15,861.05	11,384.502
Valid N (list-wise)	814				

2.3.1 Income Comparison among Sectors

The study wanted to know the earning level of the graduates from both Diploma and TSLC programs of three trades in order to find out whether their life has been comfortable with the income they earn, which eventually indicates the effectiveness of TVET programs. The following Table 2.21 represents the income level of the graduates of Health, Engineering and Agriculture trades of both Diploma and TSLC level programs.

Table 2.21: Income Level of TVET Graduates by Sectors and Levels of Programs

SN	Trade-wise Distribution	Diploma Level			TSLC Level		
		Mean	N	Standard Deviation	Mean	N	Standard Deviation
1	Engineering	19,738.98	59	14,710.330	18,735.38	65	9,174.275
2	Health	15,406.69	317	12,165.232	11,849.20	264	7,706.566
3	Agriculture	21,524.25	57	5,747.614	24,798.08	52	15,001.392
	Total	**16802.31**	**433**	**12,130.055**	**14,791.31**	**381**	**10,385.599**

Source: Field Data, CTEVT, 2015/16

The above Table 2.21 shows that the graduates of Agriculture trade of both Diploma and TSLC level programs have the highest monthly income followed by the graduates of Engineering trade. Among the graduates of Agriculture, Health and Engineering programs, it looks that Health program graduates have the least income. In Agriculture group, the average salary of TSLC graduates looks higher than that of the graduates of Diploma level programs. This is because of higher number of TSLC graduates are involved in self-employment where their earning is significantly higher. Therefore, in case of the self-employment, all the earnings should not be counted as the contribution of studying TVET program alone, because there is financial investment of the graduates in self-employment and it is also the return on their investment. For example, the graduates of VJTA program were engaged in kennel club with their investment.

In the field visit also, the graduates shared that VJTA/Plant JTA were not getting the standard rate of remuneration as these sectors are not commercialized yet. They provide the services and accept what they are given by the owner as remuneration.

2.3.2 Income Comparison among Employment Types

Although the number of graduates who went for foreign employment is low (only 17), their monthly income is the highest in comparison to those who are involved in other types of employment. Graduates involved in self-employment also have considerable amount of monthly income. The income of the graduates involved in wage employment in either formal or informal sector seems low but manageable. Table 2.22 below shows the monthly income (in Mean and Standard Deviation) of the traced TVET graduates who were in different types of employment.

Table 2.22: Comparison of Income among Graduates in Different Types of Employment

S.N.	Types of Employment	Mean	N	Std. Deviation
1	Self-employment	21,751.88	160	15,008.827
2	Wage employment in formal sector	13,588.62	555	8,101.234
3	Wage employment in informal sector	13,963.54	82	10,994.864
4	Foreign employment	43,758.82	17	9,546.011
	Total (Graduates)	**15,861.05**	**814**	**11,384.502**

Source: Field Data, CTEVT, 2015/16

2.3.3 Income Comparison among TVET Programs

Comparing the trade-wise income level of the graduates, it was found that the graduates of Veterinary Junior Technical Assistant (VJTA) program under Agriculture trade had the highest average income, i.e. Rs. 24,798.08 per month. Likewise, graduates of I. Sc. Agriculture in Plant Science had an average income of Rs. 21,524.25 per month. TSLC in Electrical Engineering and Diploma in Engineering programs had an average monthly income of Rs. 21,272.73 and Rs. 21,212.12 respectively. Graduates of Health trade had an average monthly income between the range of Rs. 10,878.64 (Auxiliary Nurse Midwifery or ANM) to Rs. 19,117.65 (Diploma in General Medicine or HA)). The highest level of income of Veterinary Junior Technical Assistant (VJTA) program could be due to the combination of earnings and return on their investment.

The data in Table 2.23 show that the graduates of Agriculture trade (VJTA) had the highest income level. Engineering trade graduates' monthly income was also over 20 thousand. The income level of Health sector of TSLC level program was lower than Agriculture and Engineering sectors. However, out of 982 employed graduates 168 did not give any

information on their income. Table 2.23 represents trade-wise monthly average income level of Diploma and TSLC level program graduates.

Table 2.23: Program-wise Income Level of Graduates (income per month in NRs.)

SN	Name of Technical Program Attended by Graduates	N	Mean	Std. Deviation
1	Diploma in Civil Engineering	33	21,212.12	12,690.443
2	Diploma in Computer Engineering	5	10,600.00	4,669.047
3	Diploma in Electrical Engineering	21	19,600.00	18,466.862
4	Proficiency Certificate in Nursing	105	14,195.43	9,801.778
5	Diploma in General Medicine (HA)	68	19,117.65	14,254.980
6	Diploma in Pharmacy	47	20,074.47	15,295.630
7	I. Sc. Agriculture in Plant Science	57	21,524.25	5,747.614
8	Certificate in Medical Lab Technology	97	11,854.64	9,714.079
9	Community Medicine Assistant (CMA)	97	11,872.06	6,442.931
10	Auxiliary Nurse Midwifery (ANM)	103	10,878.64	5,084.649
11	TSLC in Lab Technology	64	13,376.56	11,786.012
12	Veterinary Junior Technical Assistant	52	24,798.08	15,001.392
13	TSLC in Civil Engineering	30	17,760.00	9,298.001
14	TSLC in Electrical Engineering	11	21,272.73	10,973.522
15	TSLC in Survey Engineering	19	19,842.11	8,001.827
16	TSLC in Computer Engineering	5	14,800.00	8,983.318
	Sub-total	**814**	**15,861.05**	**11,384.502**
	Non-respondents	168		
	Grand Total	**982**		

Source: Field Data, CTEVT, 2015/16

In Table 2.21, the average salary of TSLC graduates of Agriculture sector is higher than that of Diploma; this is because higher numbers of TSLC graduates are involved in self-employment than Diploma graduates which is depicted in the analysis presented in Table 2.24. Of the total employed, 12.28% graduates of I. Sc. Agriculture in Plant Science program are found engaged in paid employment, whereas the corresponding proportion of TSLC in Veterinary JTA is 53.85%. The detailed figure is depicted in the table below.

Table: 2.24 Income Comparisons among the Types of Employment in Agriculture Group

SN	Employment Type	Diploma Level		TSLC Level	
		Number	Percentage	Number	Percentage
1	Self-employment	7	12.28	28	53.85
2	Wage employment in formal sector	46	80.70	17	32.69
3	Wage employment in informal sector	3	5.26	2	3.85
4	Foreign employment	1	1.75	5	9.62
	Total	**57**	**100.00**	**52**	**100.00**

2.3.4 Income Comparison between the Sexes

There is significant variation in income level of graduates between genders. The average monthly income of the male graduates is Rs. 19,100, whereas the corresponding figure of female graduates is Rs. 12,791 only. To find out whether this variation is due to the trades,

nature of jobs, it is the gender discrimination, income variation was also compared in the same groups. There seems some association between the nature of job and gender of the respondents. Of the total 982 employed number, the self-employed account for 18.0%, whereas the corresponding percentage of female is significantly lower than this figure (13.4%). Unlike this nature of job, there is no significant difference between the types of job (full-time/part-time) between the sexes. The proportion of female graduates involved in full-time job is 86.3% against the proportion in total employment 85.7%. Table 2.25 represents the gender-wise earning level.

Table 2.25: Gender-wise Earning of the Respondents

SN	Gender of the Respondents	Mean	N	Std. Deviation
1	Male	19,100.71	396	13,432.485
2	Female	12,791.89	418	7,897.160
	Total (Graduates)	**15,861.05**	**814**	**11,384.502**

If we compare the trade-wise monthly income of respondents against gender, the monthly income of female is found consistently and considerably lower than their male counterparts in all trades. In the Engineering trade, when male graduates are earning Rs. 19,776.36 monthly, females are earning only Rs. 14785.71. The corresponding monthly earnings of male and female graduates in Health trade and Engineering trade are Rs. 17,116, Rs. 11,907 and Rs. 23,605, Rs. 21,890 respectively.

Table 2.26: Income Level by Gender and Sector (income per month in NRs.)

S.N.	Trade-wise Distribution	Gender of the Respondents	Mean	N	Standard Deviation
1	Engineering Trade	Male	19,776.36	110	12,553.379
		Female	14,785.71	14	6,091.338
		Total	**19,212.90**	**124**	**12,086.645**
2	Health Trade	Male	17,116.67	210	14,058.189
		Female	11,907.30	371	7,215.654
		Total	**13,790.21**	**581**	**10,521.617**
3	Agriculture Trade	Male	23,605.03	76	11,758.362
		Female	21,890.91	33	9,971.063
		Total	**23,086.07**	**109**	**11,229.320**

2.3.5 Income Comparison among Trades

Graduates' monthly income is also compared among the three different trades: Engineering Trade, Health Trade and Agriculture Trade. In the trade-wise income comparison, the income level of graduates of Agriculture Trade is obtained the highest (Rs. 23,086) and Health Trade is obtained the lowest (Rs. 13,790) among the three groups. The income variation across and within trades is more or less similar which is 12,086, 10,561 and 11,229 respectively among three trade groups. The detailed figure is depicted in the Table 2.27.

Table 2.27: Income Comparison among Trade Groups (income per month in NRs.)

S.N.	Name of Trade	Average Income	Number	Std. Deviation
1	Engineering Trade	19,212.90	124	12,086.645
2	Health Trade	13,790.21	581	10,521.617
3	Agriculture Trade	23,086.07	109	11,229.320
	Total	**15,861.05**	**814**	**11,384.502**

2.3.6 Perception Regarding the TVET Programs and Graduates

The positive feeling about a job is generally considered as the job satisfaction. More specifically, compensation and benefits, supervision, communication, team work, work environment, etc. are the major components falling under the satisfaction.

In response to the question whether they were satisfied with their current job, out of 820 respondents, 613 (74.8 percent) graduates informed that they were satisfied with their current job, but 207 (25.2 percent) showed their dissatisfaction with the job they had. Some of the graduates shared that because they were not getting enough salary, especially in private sector, they are not satisfied with their jobs. Table 2.28 below depicts the frequency and percentage of graduates' job satisfaction.

Table 2.28: Job Satisfaction of Graduates

S.N.	Satisfaction Status	Frequency	Valid Percentage
1	Satisfied	613	74.8
2	Not Satisfied	207	25.2
	Total	**820**	**100.0**
	Non- respondents	162	

Source: Field Data, CTEVT, 2015/16

While analyzing the reason of dissatisfaction, the respondents' answer was compared against their income level, conducting the statistical test of Independent Samples t-test. The mean difference in income between the graduates who are satisfied and not satisfied with their present jobs is obtained 4,233 which is statistically significant at 99% confidence level. The Table 2.29 below depicts the supplementary statistics of independent samples t-test.

Table 2.29: Independent Samples t-Test: Monthly Income Vs Satisfaction Level

Group Statistics					
	Satisfaction Status	N	Mean	Standard Deviation	Standard Error Mean
Monthly income in the present job	Satisfied	585	16,618.96	11,341.018	468.893
	Not satisfied	177	12,385.88	10,300.313	774.219

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper
Equal variances assumed	3.863	.050	4.442	760	.000	4,233.085	952.962	2,362.334	6,103.836
Equal variances not assumed			4.677	315.978	.000	4,233.085	905.139	2,452.225	6,013.945

2.4 Proficiency and Satisfaction Level of Graduates

In order to measure the level of satisfaction with the TVET programs provided, five statements were used as a single global rating approach. The traced graduates were asked to rate a number between 1 and 5 where there were the answers from "strongly disagree" to "strongly agree". The following Table 2.30 describes the satisfaction level of the TVET graduates with the training provided, through 'Mean' and 'Standard Deviation'.

Table 2.30: Level of Satisfaction with the Skills Provided (ratings 1 to 5)

SN	Statements	N	Mean	Standard Deviation
1	My training has adequately prepared me for work.	1,179	3.944	0.89586
2	My employer is satisfied with my level of knowledge and skills.	1,047	3.994	0.82386
3	It is easy for me to get a job because of level of knowledge and skill learned in the institute.	1,047	3.750	0.99806
4	I find myself to be very effective in my current job.	1,006	3.854	0.89599
5	I can easily change employment within my area of specialization.	1,065	3.582	1.00612
6	I am being able to perform the skills required by the job.	1,075	4.031	0.78447
7	I am satisfied with my current job.	1,012	3.707	1.02463
8	I am fully satisfied with the TVET program I had.	1,199	3.975	0.90551
	Valid N (list-wise)	917		

Source: Field Data, CTEVT, 2015/16

The graduates were satisfied to some extent in regard to easily changing employment within their area of specialization. The statistics (mean = 3.58 and SD = 1.006) show (Table 2.30) that they were clustered near to "agree". Since SD is slightly more than one it implies that there was small variation, or dispersion exists from the average or mean. Another important thing is that the response rate for this particular statement is 53.0%. Since most of the given statements are either relevant to be answered by presently employed graduates or those who had employment in the past after graduation. This is also the question directly answered by respondents and not relevant to be collected from secondary sources. It is, therefore, only 1,065 respondents were found relevant to answer.

The responses over the next six statements (Table 2.30) also indicate more or less the same phenomenon like the above analysis of statement one. The mean of all statements is near to 4. It indicates that the participating graduates were clustered near to the "agree" region. The above analysis shows that the satisfaction level of the graduates with the TVET program provided is found acceptable. Specifically the graduates under Lab Technician or Lab Assistant programs were not found confident in the skills they obtained. However, there is much room for improvement. During field study also, it was found that the graduates of Lab Assistant/ Technician program are lacking skills due to inadequate practical opportunities. The graduates revealed that practical opportunity is inadequate in all programs of private institutes.

The graduates were satisfied in regard to being able to perform the skills required by the job. The statistics (mean = 4.0 and SD = 0.78) show (Table 2.30) they were clustered to "agree". The response rate of this particular statement is 53.3%. Here again, it means out of 2,009

sampled graduates only 1,075 graduates responded to this. Why the remaining graduates were not interested to rate this particular statement? It shows that perhaps there was problem of confidence about the skills they obtained. Nonetheless, there is still room for improvement.

2.4.1 Satisfaction Level of Employers Regarding the Graduates' Performance

Information about the satisfaction level of the employers on graduates' job performance was also collected from the respective supervisors or employers of the wage-employed graduates. In this connection, they were asked to compare the performance of TEVT graduates with that of other technical staff who were trained from training institutes other than CTEVT. Out of 35 employers, 16 (61.5% of the total 26 respondents) of them reported that there is no significant difference between the job performances of the graduates trained at CTEVT institutions and other training institutions. Eight employers found TVET graduates perform better than other technical staffs, while only two out of 26 respondents found the performance of TVET graduates poorer than others'. It can be said that TVET graduates, in general, perform well in their job. Table 2.31 depicts the responses of the employers regarding comparison of work performance.

Table 2.31: Work Performance Comparison between TVET Graduates and Other Technical Staff

SN	Comparative Status			Frequency	Valid Percentage	Cumulative Percentage
1	Poorer than other TVET			2	7.7	7.7
2	No significant difference			16	61.5	69.2
3	Better than other TVET			8	30.8	100.0
	Total			**26**	**100.0**	

Source: Field Data, CTEVT, 2015/16

However, during the field visit, employers of the private training institutes shared that the graduates were lacking self-confidence and practical skills. Opportunities for practicing skills were inadequate. Therefore, they were not confident to perform the work even if they got the job.

2.4.2 Need for Additional Training

The study team wanted to know if the TVET graduates needed additional training in order to perform very well in their work, 80 percent of the interviewed employers agreed that the graduates need additional training, and only 20 percent informed that the graduates do not need additional training. Table 2.32 represents the response of the employers in regard to the question whether TVET graduates need additional training.

Table 2.32: Employers' Response on Need for Additional Training

SN	Response	Frequency	Percentage	Cumulative Percentage	Remarks
1	Yes	28	80.0	80.0	
2	No	7	20.0	100.0	
	Total	**35**	**100.0**		

Source: Field Data, CTEVT, 2015/16

When asked what additional training would help the TVET graduates to perform according to the standard of the employers, they suggested that three-year Diploma programs should be

made four-year programs with one additional year (i.e. fourth year) of workplace training packages (OJT). Employers also reflected that even the TSLC graduates having the provision of OJT are not getting adequate opportunities of working in the related job during OJT. Additionally, some soft skills training packages should be incorporated, and also in-depth practical skills should be provided, including more advancement in technical field. Employers of health and social work sectors wanted TVET programs to incorporate Skill Birth Attendant (SBA) and Family Planning training in ANM curriculum, as well as basic computer training in each of the TVET programs. They also suggested that the TEVT graduates be trained additionally to handle emergency cases and some knowledge on OT.

Employers of Lab Technician wanted TVET graduates to have bio-medical training and training for culture test in Lab Assistant/Technician courses. They also wanted the TVET graduates to be acquainted with new and emerging technologies and have some knowledge on pharmacy in every course.

2.4.3 Willingness of Employers to Hire TVET Graduates

The study team wanted to know if the employers were willing to hire TVET graduates in the future too. Table 2.32 shows that 33 (94.3%) out of 35 employers were willing to hire, and responded with 'Yes', and the rest 2 (5.7%) said 'No' and were not willing to hire them.

Table 2.32: Responses of Employers on Hiring TVT Graduates

SN	Response	Frequency	Percentage	Cumulative Percentage	Remarks
1	Yes	33	94.3	94.3	
2	No	2	5.7	100.0	
	Total	**35**	**100.0**		

Source: Field Data, CTEVT. 2015/16

When asked about the reason for not being interested to hire TVET graduates, one employer blamed TVET program to be of low quality. Although one particular employer pointed out TVET program to be of low quality, the following data presented in Table 2.33 in Mean and Standard Deviation, reflects the employers' impression on the graduates' work performance. Employers were asked to rate the graduate employees' work performance using 5-point rating scale from 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; to 5 = strongly agree.

Table 2.33: Employers' Rating on TVET Graduates

Statements on Graduates' Work Performance	N	Mean	Std. Deviation
The graduates have adequate theoretical knowledge.	35	3.97	0.707
The graduates have highly developed practical trade skills.	35	3.66	0.906
The graduates are willing and eager to learn.	35	3.94	0.684
The graduates are hard-working and committed.	35	3.91	0.981
The graduates are able to work independently.	35	3.69	1.132
The overall performance of graduates is satisfactory.	35	4.14	0.733
The graduates have adequate job specific skills.	35	3.83	0.785
The graduates have good leadership skills.	35	3.60	0.976
The graduates have the required individual and teamwork skills.	35	4.14	0.692
The graduates have good leadership skills.	35	3.86	0.810
Valid N (list-wise)	35		

Source: Field Data, CTEVT, 2015/16

In order to rate the TVET program graduates' work performance; five statements were used as a single global rating approach. The employers were asked to rate a number between 1 and 5 where there were the answers from "strongly disagree" to "strongly agree". The above Table 2.33 describes the rating of the TVET graduates about their work performance through 'Mean' and 'Standard Deviation'.

The employers were satisfied to some extent with the overall performance of graduates, and about the graduates having the required individual and teamwork skills. The statistics (mean = 4.14 and SD = 0.733) and (mean = 4.14 and SD = 0.692) show (Table 2.33) that they were clustered to "agree". Although the rating falls in the cluster of agree, this shows that the employers do not have confidence to fully agree to the statement. This implies that the training providers are required to put more efforts to improve proper skills for their graduates.

The responses to the remaining eight statements (Table 2.33) also indicate more or less the same phenomenon like the above analysis of two statements. The mean of all statements is near to 4. It indicates that the respondent employers were clustered near to the "agree" region. The above analysis shows that the employers' satisfaction level with the graduates' work performance is found acceptable. However, there is much room for improvement.

2.4.4   Issues Related to the Quality and Relevance of TVET Programs

Customers' satisfaction is the essential indicator of quality. Therefore, graduates' level of satisfaction determines the quality of the training. The traced graduates were asked to rate the quality of the TVET programs they received using five descriptive qualifiers, viz. Excellent; Very good; Good; Poor; and Very poor. Out of 2,009 total traced graduates, 680 graduates informed that the quality of the TVET they received was good, while 630 graduates found the TVET programs very good. Similarly, 312 graduates found the TVET program to be excellent. The following Table 2.34 shows the grading of quality of TVET programs by the graduates.

Table 2.34: Grading of Quality of TVET Programs

SN	Grading on Quality	Frequency	Percentage of Total Cases	Percentage of Valid Cases
1	Excellent	312	15.5	18.8
2	Very good	630	31.4	38.0
3	Good	680	33.8	41.0
4	Poor	33	1.6	2.0
5	Very poor	5	0.2	0.3
	Sub-total	**1,660**	**82.6**	**100.0**
7	Non-respondent	349	17.4	
	Grand Total	**2,009**	**100.0**	

Source: Field Data, CTEVT, 2015/16

Although the graduates rated the quality of TVET programs as 'very good' and 'excellent', during field visit, in case of Lab Assistant/Lab Technician program, it was found that the graduates are lacking skills due to inadequate practical opportunities. Graduates revealed that the practical opportunity is inadequate in all programs of the private institutes. If a TVET graduate lacks practical skills, how can we expect the training to be excellent or very good?

Besides this, the graduates were requested to appraise the TVET program they participated based on quality components such as content knowledge, opportunities for practical skill, and curriculum or content; laboratory practice, instructional technique, industrial attachment, on the job experience etc. They were to rate the extent to which the following components of TVET Program should be improved to address the need of the job market. The respondents graduates of the study assessed the quality of training delivered by training institutions by expressing their views about various quality components of TVET program using 3 point rating scale (3 = 'substantial improvement is necessary'; 2 = 'some improvement is necessary'; and 1 = 'No improvement is necessary'). The following Table 2.35 shows the graduates' perception expressed through number of response and percent.

Table 2.35: Graduates' Perception on Quality of TEVT Programs

SN	Statement	Substantial Improvement		Some Improvement		Total
		N	%	N	%	
1	Content knowledge (theory) related to TVET program	271	16.78	1,003	62.11	1,615(100)
2	Opportunities for practical skills	376	23.22	989	61.09	1,619(100)
3	Curriculum or content	267	16.52	973	60.21	1,616(100)
4	Language level and textbook	256	15.92	866	53.86	1,608(100)
5	Workshop/Lab equipment	385	23.91	866	53.79	1,610(100)
6	Instructional delivery methods	276	17.16	847	52.67	1,608(100)
7	Instructors' level of theoretical knowledge	229	14.29	814	50.81	1,602(100)
8	Instructors' commitments for the quality delivery	253	15.82	850	53.16	1,599(100)
9	Instructors' competence for the quality delivery of the program	247	15.40	879	54.80	1,604(100)
10	Teaching-learning environment	295	18.22	789	48.73	1,619(100)
11	Industrial attachment	370	23.26	842	52.92	1,591(100)
	Total	**3,225**	**18.23**	**9,718**	**54.93**	**17,691(100)**

Source: Field Data, CTEVT, 2015/16

Although the graduates were asked to rate the quality of TVET programs using 3-point rating scale, they have expressed their views that the given components of TVET programs need substantial improvement in order to meet the need of the employers or job market. Referring to the Table 2.35 above, 385 graduates have expressed that 'workshop/lab equipment' needs to be improved substantially. The other components that the large numbers of graduates have expressed their view for substantial improvement are: opportunities for practical skills (376 graduates) and industrial attachment (370 graduates).

Similarly, the traced graduates were asked to assess the curricula of TVET programs that they studied in terms of their relevance to the job, using four grading points as 'very relevant'; 'relevant'; 'not much relevant'; and 'completely irrelevant'. Graduates' perception is presented in the following Table 2.36 expressed through frequency, percentage of total cases, and percentage of valid cases.

Table 2.36: Graduates' Perception on Relevance of TVET Program

S.N.	Grading on Relevance	Frequency	Percentage of Total Cases	Percentage of Valid Cases
1	Very relevant	240	11.9	14.7
2	Relevant	1,323	65.9	81.3
3	Not much relevant	54	2.7	3.3
4	Completely irrelevant	11	0.5	0.7
	Sub-total	**1,628**	**81.0**	**100.0**
5	Non-respondent	381	19.0	
	Grand Total	**2,009**	**100.0**	

Source: Field Data, CTEVT, 2015/16

During the FGI with employers, most of them mentioned that the existing TVET curricula are outdated with dominance of theoretical components. Therefore, regular revision and updating of the curricula is very necessary to make them relevant, practical-based with latest development/ demand of labour market. Some respondents/ employers also shared that the existing course is also inadequate for expected performance.

## 2.5 How Much Training is Applicable to the Graduates

Presently, CTEVT not only prepares workforce focusing on the need of immediate employment market but also conducts academic programs heading towards higher degree. Most of the Diploma level programs have dual purpose of either addressing labour market needs or preparing students to enroll in to under-graduates course of universities. In this line of reasoning, NEET (Not in Employment, Education or Training) rate is more appropriate to measure the relevance of the TVET programs than the rate of employment. Since TVET programs are considered applicable to those graduates who are either employed in study-related jobs or enrolled in related subjects of university programs, opposite may be the case for the remaining graduates.

In this way, this study explored that TVET programs are supposed to be beneficial to almost 74.1% of the graduates, however the rest 25.9% graduates are found no more directly benefitted by TVET programs. This proportion varies with trades and programs. The NEET rate is the highest in Health trade and the lowest in Engineering trade. In Engineering trade, 81.5% of the graduates are found either employed or engaged in further study, the corresponding proportion of Health and Agriculture trades is 72.4% and 73.7% respectively. The detail of the program-wise NEET rate is depicted in Annex III.

Table 2.37: NEET Rate by Trade

SN		NEET Rate		Total
		Either Employed or in Education	**Neither Employed nor in Education**	
1	Engineering trade	273 (81.5%)	62(18.5%)	335 (100%)
2	Health trade	1,083 (72.4%)	412(27.6%)	1,495 (100%)
3	Agriculture trade	132(73.7%)	47(26.3%)	179 (100%)
	Total	**1,488(74.1)**	**521(25.9)**	**2,009 (100%)**

Chart 2.2: Graduates Engagement Status
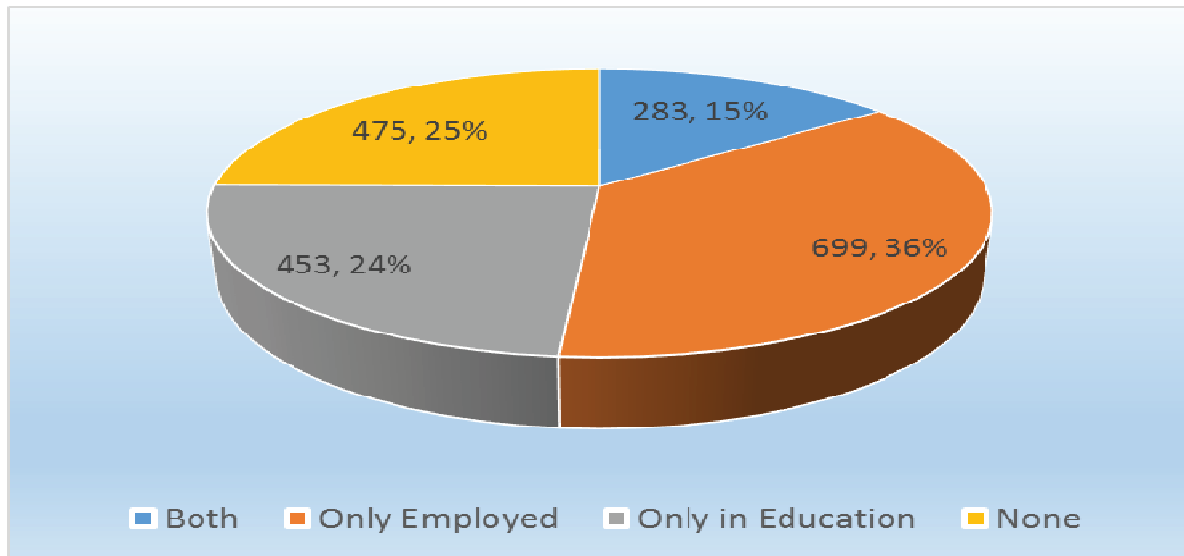
Similarly, respondents' status is also analyzed based on their education and employment status. Of the 1910 respondents (out of 2009 traced graduates), 36% respondents were only employed but were not in study, whereas 24% respondents were only in study but not in employment. Similarly, 15% respondents are involved both in employment and study simultaneously. And, almost 25% of the graduates are totally out of education and employment. The pie Chart 2.2 presents the detailed picture regarding this matter.

SECTION III: MAJOR FINDINGS, CONCLUSION AND RECOMMENDATIONS

The findings of this tracer study are based on quantitative data collected from the selected 7 provinces and the qualitative information generated from field study based on survey, observation, FGD, interaction with the stakeholders, and telephone conversation with the graduates where direct contact was not possible. Attempts have been made to organize the findings with respect to the study objectives. These findings are enriched by both quantitative and qualitative data. This chapter on findings is expected to provide an insight into employment status of the graduates and the effectiveness of TVET programs in terms of quality, relevance and stakeholders' satisfaction with graduates' work performance.

The findings of the tracer study in this chapter are organized in the following thematic sections:

(a) Employment Status of the TVET Graduates, (b) Satisfaction Level of Employers Regarding the Graduates' Performance, (c) Characteristics, Expectations and Aspirations of Graduates and (d) Quality and Relevance of TVET Programs. Based on the findings presented in these sections, final conclusion has been drawn and presented along with recommendations.

3.1   Employment Status of the TVET Graduates

3.1.1   Out of 2,009 traced TVET graduates, 982 (49%) were employed, 928 (46%) were unemployed, and the rest 99 (5%) were working as volunteers. The gap between the percentage of employed and unemployed graduates is not that big. At least 70% employment rate of the graduates is tolerable in TVET programs. But the tracer study showed only 49% employment rate of the TVET graduates. This shows that either the curriculum is not need-based, or the coordination or connection between the training institutions and potential employers is lacking or the placement support is missing.

3.1.2. Health-related program graduates were involved as volunteers without any salary for six months to one year. The most unfortunate matter for these graduates is there is no job guarantee even after completing the terms and conditions of volunteer service. In a way, they can also be regarded as unemployed.

3.1.3   More graduates of TSLC level programs were unemployed (441 or 49%) than employed (422 or 46.9%), especially in Community Medicine Assistant, Auxiliary Nurse Midwifery (ANM), Lab Technology, Civil Engineering and Survey programs. In case of ANM and CMA, Employers prefer to give job to staff nurses from Diploma level program, which clearly indicates that ANM and CMA are being phased out by Staff Nurse. In such a situation, TSLC graduates are losing job opportunities. If this situation continues, continuing TSLC level TVET program is not justifiable.

3.1.4   The employment status of graduates of Survey course of TSLC level program is very distressing. While the number of employed graduates is 19, the number of unemployed graduates is 49. Here also, the graduates of Survey trade are not getting jobs. This means, either there is no job in the job market for TSLC level graduates or the quality of the program does not match the demand of the job. If such a situation of unemployment for the graduates

of Survey trade is valid for other batches too, it will not be rational to continue this course either.

3.1.5   The employment status of Diploma level graduates is also that satisfactory either. Although 50.5% of the total traced graduates were employed, 43.9% were unemployed. The difference between employed and unemployed is insignificant.

3.1.6   In Civil Engineering and Computer Engineering trades of Diploma level program also, the number of unemployed graduates (90 and 10 respectively) is greater than the employed graduates (38 and 5 respectively). This means the graduates of these trades are not getting jobs easily. This shows either there are less job opportunities in the job market or they are not well-trained to match the demand of the market or there is lack of employment support program.

3.1.7   The graduates, especially those of VJTA program, who are involved in self-employment, are satisfied with their work. There is much room for self-employment in this trade. Similarly, those graduates of Lab Technology program, who are also involved in self-employment or part-time jobs, are quite content with their job. They can take more than one job at a time in their own discretion. Thus, TVET graduates need to be encouraged for self-employment.

3.1.8   Soft skills were instrumental for getting employment or to retain the employment. To name a few, communication skill, honesty/ positive attitude toward work and organization and interpersonal skills are very crucial for retaining the job, especially in private sector.

3.1.9   Although the graduates employed in formal sector earn less than the graduates in informal sector or self-employment or in foreign employment; they are quite satisfied with their income. Graduates who are in self-employment earn better than graduates who are in wage employment in both formal and informal sectors. They should, therefore, be encouraged to go for self-employment.

3.1.10 Placement support to the graduates is crucial for promoting employment. It works better if the training institutes establish functional placement and counseling unit and support graduates linking with job market.

3.2 Satisfaction Level of Employers Regarding the Graduates' Performance
3.2.1 The performance level of the TVET graduates at the workplace is to the acceptable level for the employers. However, there is always space for doing better.

3.2.2   Employers are willing to hire TVET graduates if they are provided additional knowledge and skills to perform according to the standard/ requirements of the employers. In case of Diploma course, additional workplace training packages (OJT), some soft skills training packages and in-depth knowledge and practical skill would be very much helpful for both the employers and the graduates. Trade specific subjects such as Skill Birth Attendant (SBA) and Family Planning training in ANM curriculum, and additional skills such as handling emergency cases and some knowledge on OT would be advantageous to the TVET students. Bio-medical training and training for culture test in Lab Assistant/Technician courses would be beneficial for graduates of Lab Technology/ Assistant program for employment.

3.2.2 TSLC graduates, especially in Health sector are not in preference of the employers over Diploma level graduates, because the former do not have adequate skills to handle the patients. Practical opportunity is inadequate in both Diploma and TSLC level programs. Therefore, the graduates are not confident to perform the work even if they get the job. Although the job performance of the graduates is acceptable to the employers, the graduates need to improve their skills so as to get preference in job in their respective fields.

3.3 Characteristics, Expectations and Aspirations of Graduates

3.3.1 Among those who were unemployed (928 graduates), 458 (22.8% of the total) graduates were still hoping to get job. That's why they were searching for job. Likewise, 227 (11.3% of the total) decided to pursue higher education and progress in their academic level so that they can get higher level job. Similarly, 34 (4.4%) are discouraged due to not having employment, 19 (2.5%) are preparing for their own business and the rest 30 (3.9%) are preparing for the Public Service Commission examination. This shows that the TVET graduates have choices; either to go into job market having skill to perform well in the job or go in for higher education.

3.3.2 If the employers prefer to take Diploma level graduates to TSLC level graduates, what would TSLC graduates expect from the TVET programs? It is not possible for all the TSLC graduates to go in for higher education either. If TSLC graduates continue to lose job opportunities, some other alternatives should be thought of for them.

3.4 Quality and Relevance of TVET Programs

3.4.1 It was found that the graduates are lacking skills due to inadequate practical opportunities. Time for practicing skill is inadequate in all programs of the private institutes. If a TVET graduate lacks practical skills, how can we expect the training to be excellent or very good?

3.4.2 The unemployed graduates have reported that there are no job opportunities in the job market. Such expressions raise the issue of relevance of TVET programs to the job market. The statements suggest that either the curriculum of TVET program is not need-based, or the linkage between industries and training institutes is missing or it could be both. It is time that with the changed context, CTEVT should rethink about changing/ revising its programs so that it can prepare the human resource according to the skill demand of the job market.

3.5 Conclusion

With the broader objectives as to make significant contribution to employment creation or poverty reduction of the country, either by preparing graduates as per the employment needs of the country or by making them capable enough to create new employment (self-employment), CTEVT has been running long-term and short-term training programs of vocational nature under the trades of Health, Agriculture and Construction. Therefore, in order to make CTEVT well-informed about the employment status of their graduates as well as needs of the labour market this tracer study was conducted with a view to tracing the graduates to find out their employment status as well as their income and performance level at workplace.

TVET programs have been contributing to the employment and overall economic growth of the country and thus need to be further strengthened. However, the employment rate is

comparatively low. Therefore, there is a high need to strengthen the linkage with the industry and job market and also review the programs to address the changing market needs.

Practical opportunities for the participants are inadequate especially in Private Institutes as specified in the curriculum. Effective monitoring mechanism has to be established and implemented to ensure the effective implementation of the curriculum.

Overall income and earning of the employed graduates was satisfactory. Not only the graduates but the employers are also happy and satisfied with their employees' job performance, although some additional skills and knowledge are required for the TVET graduates. Hence, it can be concluded that TVET program of CTEVT has helped to improve the economic life of the targeted group to some extent.

3.6 Recommendations

Based on data analysis and findings, the following recommendations are made:

- Labour market studies are recommended to conduct in a periodic manner to identify the changing needs of the labour market. Consequently, it is recommended to review curricula to cater to the market demand. It is recommended to ensure that the soft skills are incorporated while revising and developing the curriculum of each program and be implemented properly.
- It is recommended to incorporate basic computer skills in the curriculum of each program.
- Recommended to ensure effective monitoring is carried out to ensure that the curriculum is fully implemented, especially to ensure adequate practical opportunities for the students as envisaged by the curriculum. It was found lacking, especially in private institutes.
- Recommended to carry out the tracing of their graduates by each training institute in a regular basis to update the market demand and for course updating.
- Linkage between training institutions and industries or employers should be strengthened so that the TEVT program is offered according to the human resource demand of the employers.
- It is recommended to establish functional placement and counseling unit or any other such mechanism in each training institute as well as in CTEVT to support graduates linking with job market.
- It is recommended to assess the necessity of on-the-job training (workplace practice) provision for Diploma programs by subject experts. For the existing TSLC programs with OJT provision, it is also recommended to ensure that the graduates get opportunity of working in the related job during the OJT. Developing a roaster of potential organizations for OJT placement in each program would be instrumental.

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ANNEXES:

Annex I: Location and Number of Employers Interviewed

SN	Address of Employers	Frequency	Percentage	Cumulative Percentage	Remarks
1	Kathmandu Valley	4	11.4	11.4	
2	Pokhara, Kaski	7	20.0	31.4	
3	Bharatpur, Chitwan	5	14.3	45.7	
4	Butwal, Rupandehi	2	5.7	51.4	
5	Dhangadhi, Kailali	1	2.9	54.3	
6	Amarbhumi, Surkhet	1	2.9	57.1	
7	Banepa, Kavrepalanchok	1	2.9	60.0	
8	Bhairahawa, Rupandehi	1	2.9	62.9	
9	Hetauda, Makwanpur	4	11.5	74.3	
10	Khalanga, Jumla	3	8.6	82.9	
11	Lamki, Kailali	1	2.9	85.7	
12	Biratnagar, Morang	1	2.9	88.6	
13	Tansen, Palpa	1	2.9	91.4	
14	Sandhikharka, Arghakhanchi	1	2.9	94.3	
15	Tamghas, Gulmi	2	5.7	100.0	
	Total	**35**	**100.0**		

Annex II: Graduates either in Education or Employment vs. neither in Education nor Employment

SN	Name of Program	EE Rate		Total
		Either in Emp. or in Education	Neither in Emp. nor in Education	
1	Diploma in Civil Engineering	105 (82.0)	23(18.0)	128(100)
2	Diploma in Computer Engineering	11(73.3)	4(26.7)	15 (100)
3	Diploma in Electrical Engineering	33(89.2)	4(10.8)	37(100)
4	Proficiency Certificate in Nursing	242 (75.4)	79(24.6)	321(100)
5	Diploma in General Medicine (HA)	146(79.8)	37(20.2)	183(100)
6	Diploma in Pharmacy	79(73.8)	28(26.2)	107(100)
7	I. Sc. Agriculture in Plant Science	77(75.5)	25(24.5)	102(100)
8	Certificate in Medical Lab Technology	122(56.2)	95(43.8)	217(100)
9	Community Medicine Assistant	168(66.9)	83(33.1)	251(100)
10	Auxiliary Nurse Midwifery (ANM)	192(73.6)	69(26.4)	261(100)
11	TSLC in Lab Technology	134(86.5)	21(13.5)	155(100)
12	Veterinary Junior Technical Assistant	55(71.4)	22(28.6)	77(100)
13	TSLC in Civil Engineering	43(68.3)	20(31.7)	63(100)
14	TSLC in Electrical Engineering	11(64.7)	6(35.3)	17(100)
15	TSLC in Survey Engineering	64(94.1)	4(5.9)	68(100)
16	TSLC in Computer Engineering	6(85.7)	1(14.3)	7(100)
	Total	**1,488(74.1)**	**521(25.9)**	**2,009(100)**

Note: Figures in parenthesis indicate the row percentage.
Source: Field Data, CTEVT, 2015/16

Annex III: Graduates either in Education or Employment vs. neither in Education nor Employment by Levels of Programs

SN	Program Level	NEET		Total
		Either Employed or in Education	Neither Employed nor in Education	
1	Diploma and PCL Level	815 (73.4)	295(26.6)	1,110
2	TSLC Level	673(74.9)	226(25.1)	899
	Total	**1,488(74.1)**	**521(25.9)**	**2,009**

Note: Figures in parenthesis indicate the row percentage.
Source: Field Data, CTEVT, 2015/16

Annex IV: Questionnaire for Graduates

Council for Technical Education and Vocational Training
Tracer Study of Graduates of TSLC and Diploma Level Programs under CTEVT
Questionnaire for Graduates

Graduate Questionnaire

Dear Graduates,
You are kindly requested to spare a few minutes to help complete the survey on *Tracer Study of Graduates of TSLC / Diploma Level Programs under CTEVT*. The data thus obtained will guide CTEVT to effectively formulate the training plans as well as to make the training programs relevant to the labour market. All the information obtained will be kept with utmost confidentiality.

(*Note: Get the personal information only if the interviewee is willing to provide it*)

Source of Information Collection:

1. Face to Face Interview
2. Telephonic Interview
3. Response from Mail
4. If others, please mention………

In case the graduate is unavailable, but any other person who knows about the graduate can provide some information, please note the available information on the blank space of the last page.

SECTION A: BIOGRAPHICAL DATA AND SOCIO-ECONOMIC STATUS

1. Name of Interviewee: …………………………………………………………..

2. Address: VDC/Municipality: ……………………………..

    District: …………………….. Telephone No…………………………..

    Email: …………………………………..

3. Age: ………………........

    Gender: …………………………………

4. Caste/ Ethnic Group:

    1. Hill Brahmin/Chhetri
    2. Terai Brahmin/Chhetri
    3. Hill *Dalit*
    4. *Terai Dalit*
    5. Hill *Janajati*
    6. *Terai Janajati*
    7. If others, please mention …………………………

5. Which of the following best describes your annual family income range?

    1) Less than Rs. 25,000
    2) Rs. 25, 001 - Rs. 50,000
    3) Rs. 50,001- Rs. 100,000
    4) More than Rs. 100,000

SECTION B: GENERAL INFORMATION

6.   What is name of the Technical Vocational Education and Training (TVET) program you attended?

……………………………………………………………………...……………………

7.   What was the duration of the TVET program you attended?

     1) 15 months   3) 18 months

     2) 29 months   4) 3 years

8.   Why did you opt this TVET program? (*Multiple-response is permitted.*)

     1. Due to high employment opportunity   2. My guardians and seniors suggested

     2. My friend opted the training   4. If others: ………………………..

9.   Mention the name and address of the institute where you attended the TVET program.

     Name of the Institute: …………………………………………………………….

     Address of the Institute: …………………………………………………………….

SECTION C: QUALITY AND RELEVANCE OF THE TRAINING

10. How was the quality of the TVET program you received?

     1. Excellent   2. Very good   3. Good   4. Poor   5. Very poor

11. Did you find the curriculum relevant to the actual world of work?

     1. Very relevant   2.   Relevant

     3. Not relevant   4.   Irreverent

     If not very relevant, mention the gap in the curriculum...

     ……………………………………………………………………………………………

12. Some of the key areas of the TVET program which you attended are given below.
     Please rate the extent to which the following components of TVET program should be
     improved to address the need of the job market using the given rating scale. Use a tick
     (√) inside the box.

     1 = substantial improvement is necessary   2 = some improvement is necessary

     3 = no improvement needed

S. N.	Area of Improvement	1	2	3
1.	Content knowledge (theory) in related to TVET program			
2.	Opportunities for practical skills			
3.	Curriculum or content			
4.	Language level and textbook			
5.	Workshop/Lab equipment			
6.	Instructional delivery methods			
7.	Instructors' level of theoretical knowledge			

8.	Instructors' commitment for the quality delivery			
9.	Instructors' competency for the quality delivery of the programme			
10.	Teaching-learning environment			
11.	Industrial attachments (collaboration with industry)			

13. In the following box, some statements related to the adequacy of the market-oriented TVET programs are given. Please put your opinion for every statement using a tick (√) inside the related small box using rating scale:

1 = strongly disagree;　2 = disagree;　3 = neutral;　4 = agree;　5 = strongly agree

S.N.	Statements	1	2	3	4	5	NA
1	My training has adequately prepared me for work.						
2	My employer is satisfied with my level of knowledge and skill.						
3	It was easy for me to get a job because of the level of knowledge and skill learned in the institute.						
4	I find myself to be very effective in my current job.						
5	I can easily change employment within my area of specialization.						
6	I am being able to perform the skills required by the job.						
7	I am satisfied with my current job.						
8	I am fully satisfied with the TVET program I attended.						

NA: This is only for unemployed graduates.

SECTION D: TRANSITION PERIOD TO EMPLOYMENT

14. Which of the followings is your current employment status?

　1. Employed　　　　　　　　2. Unemployed **(Jump to Question 26)**

　3. Engaged as a volunteer

 If you are employed, please give the following information.

15. Your employment is:

　1. Full-time　　　　2. Part-time (less than 40 hrs/week)

16. What type of employment are you engaged in?

　1. Self-employment　　　　　　2. Wage employment in formal sector

　3. Wage employment in informal sector　4. Foreign employment

17. Is this job related to the TVET program you have completed?

　　1. Yes　　　　　　　　　　2. No

If no, why did you take the job different from the job area in which you were trained? (*Multiple-response is permitted*.)

　1. Did not get job in training-related area　　2. Lack of career progression

3. Poor remuneration   4. Poor working conditions

5. If others, please mention ……………………………………………………………..

18. What is your monthly earning in the present job?

(Mention in Nepalese Rupees) Rs. ………………………..

19. If you are employed in formal sector, please provide the following information

1. Name of employer organization: ……………………………………………………..

2. Address and phone number: ……………………………………………………………..

20. How long did it take to get the employment after completing the TVET program?

1. Mention the duration: …………. years ………….. months

2. Immediately after completion of the training

21. What did you do after graduation until you were employed?

1. Searched for employment   2. Engaged in further study/training

3. Engaged in own business   4. Others (If others, please mention the activities)

……………………………………………………………………………………………

22. How did you get this job?

1. Door to door (Job hunting)   2. Media advertisement and notice

3. Technical Training Provider (TTP)/Trainer helped 4. Selected from competition

5. Family relationship   6. Personal networking

7. If others, please mention ………………………………………………..

23. Were any other soft skills instrumental to get the present job?

1. Yes   2. No

If yes, which of the soft skills was/ were more instrumental? *(Multiple-response is permitted.)*

1. English language   2. Communication skills

3. Interpersonal skills   4. Honesty/ Attitude

5. If others, please mention ………………………………………………..

24. Are you satisfied with this job?

1. Yes   2. No

If no, please give reason(s) ……………………………………………………………………

……………………………………………………………………………………………………

25. Are you holding more than one job?

1. Yes   2. No

(Skip 26 and 27 in case of employed graduates)

26. If you are unemployed, which of the following is your status?

    1.   I am searching for job, but not getting it.

    2.   I am discouraged because of not finding employment.

    3.   I would like to devote time for further study.

    4.   I am preparing to start my own business.

    5.   If others, please mention ………………………………………………...

27. Graduates who ticked on 1 or 2 of Q. No. 26, please mention the reason/s. *(Multiple-response is permitted.)*

    1.   Lack of job opportunities in the market;

    2.   My skill and education did not match with the available jobs;

    3.   Due to inadequate employable skills (like soft skills and business skills;

    4.   I have lack of linkage with employers;

    5.   If others, mention ……………………………………………………………

SECTION E: FURTHER STUDY

28. Are you engaged in further study?

    1. Yes   2. No

If no, why did you not want to carry on your study?

…………………………………………………………………………………………….

If yes, why did you start further study?

    1.   Because of not getting job   2. Want to get higher education

    3.   Want to change the field of my study   4. If others, please mention …………...

    …………………………………………………………………………………….....

29. Were you working before you attended the TVET program?

    1. Yes   2. No

If yes, what was your monthly income?

    Rs. …………………………

30. Please list out some suggestions to improve the quality of the TVET programs for better employability and efficiency.

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

Thank you for your time and cooperation!

Annex V: Questionnaire for Employers

Council for Technical Education and Vocational Training
Sanothimi, Bhaktapur
Tracer Study of Graduates of Diploma and TSLC Programs under CTEVT
Questionnaire for Employer

Dear Sir/Madam
You are kindly requested to spare a few minutes to help complete a survey. All the information will be kept confidential and will be used only for statistical purposes. The survey is intended to assist CTEVT for preparing students for the work environment and to better serve your company and industry needs. If you have any questions, please call 01-5639451.

Thank you for taking your time to fill out this questionnaire. Once again, we assure you that all the information obtained will be used with utmost confidentiality.

- Council for Technical Education and Vocational Training

(Use a tick (√) to indicate your response where appropriate)

Section A: Profile of Employer

1. Name of Employer/Organization: …………………………………………………………
2. Address: …………………………………………………….......................................
3. Phone Number/ Mobile Number: ...…………………………………………………
4. Email Address: ……………………………………………………………………..
5. Name of Interviewee: …………………………………………………………………
6. Date of Interview (dd/mm/yyyy):.………………………………………………….....
7. Program of the Traced Graduate: ………………………………………………………..
8. Economic Sub-sector of the Enterprises:

   1. Agriculture
   2. Fishing (fishery/ fish-keeping)
   3. Mining & quarrying
   4. Manufacturing
   5. Electricity, gas and water
   6. Construction
   7. Wholesale and retail trade
   8. Hotel and restaurant

   9. Transport, storage and communication
   10. Financial intermediation
   11. Real estate, renting and business activities
   12. Public administration and defense
   13. Education
   14. Health and social work
   15. Other community, social and personal services

Section B: Nature of Employer

1. To which of the following sector does your business/company belong? (*Please choose only one*)

    1. Government   2. Non-government   3. Private

    4. If others, please mention …………........

2. What is the nature of your company? Please indicate.
    1. Formal   2. Informal

3. How many employees are presently working in your office/enterprise?

    No. of employees…………………

4. How many TVET graduates are presently employed in your organization?

TVET Program	Number of Graduates Employed
Diploma	
TSLC	
Vocational	

5. How do you recruit these people?
    1. Media advertisements or public notice
    2. Personal contact to prospective employees
    3. By the help of recruitment agencies
    4. Direct contact to the TEVT institutions
    5. Others (please specify)………………………

6. Have you also recruited technical employees other than from TVET graduates?

    1. Yes   2. No

    If yes, how have you found their performance level?

      1. Poorer than TVET graduates   2. No significant difference

      3. Better than TVET graduates

7. Do you think that the TVET graduates need additional training in their respective technical area in order to meet your company's/business's needs?

    1. Yes   2. No

    If yes, please specify the specific requirements of your company.

    1. ………………………………………………………………………………
    2. ………………………………………………………………………………
    3. ………………………………………………………………………………
    4. ………………………………………………………………………………

8. Would you be interested in hiring more graduates from CTEVT programs in the future?

   1. Yes   2. No

9. If 'No', why? Please specify.

   ………………………………………………………………………………………………………

   ………………………………………………………………………………………………………

   ………………………………………………………………………………………………………

Section C: Perception of Employer

1. How do you rate the following statements on the graduates of CTEVT program? (Scales of answer range from: 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree; to 5 = strongly agree)

1	2	3	4	5	Statements
					The graduates have adequate theoretical technical knowledge.
					The graduates have highly-developed practical trade skills.
					The graduates are willing and eager to learn.
					The graduates are hard-working and committed.
					The graduates are able to work independently.
					The overall performance of the graduates is satisfactory.
					The graduates have adequate job specific skills.
					The graduates have adequate problem-solving skills.
					The graduates have the required individual and teamwork skills.
					The graduates have good leadership skills.

2. To what extent does/do your employee/s require knowledge and skills in the following fields? (Scales of answers range between: 1 = not at all; 2 = barely; 3 = to some extent; 4 = to high extent; and 5 = to very high extent)

Rating Scale					Areas/fields
1	2	3	4	5	
					Practical skills
					Theoretical knowledge
					Entrepreneurial skills (how to run a business and to treat customers, marketing)
					Other soft skills/ work ethics (communication, punctuality, teamwork, etc.)

3. Do you have any suggestions for CTEVT so that its programs can be improved?

………
………
………
………
…………………………………………………………………

Thank you for your time and cooperation!