

Review of the Current Situation of Technical Vocational Education and Training in Nepal 2019

(with Respect to Policy Issues as per the Baseline Study 2018)

July 2019

Submitted by

Dr. Tanka Nath Sharma
Mr. Chandra Bhakta Nakarmi
Mr. Bishnu Koirala



The *Dakchyata – TVET Practical Partnership* project is part of a five-year programme (2017-2021) funded by the European Union and managed by the British Council, under the leadership of Nepal's Ministry of Education, Science and Technology, and delivered in coordination with the Council for Technical Education and Vocational Training.

Disclaimer: This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the independent consultant and do not necessarily reflect the views of the European Union.

List of Abbreviations

ADB	Asian Development Bank
AITC	Agriculture Information and Training Center
ANM	Auxiliary Nurse Midwives
CBS	Central Bureau of statistics
CDD	Curriculum Development Division (CTEVT)
CMA	Community Medicine Assistant
CSSI	Cottage and Small-Scale Industry
CTEVT	Council for Technical Education and Vocational Training
DACUM	Develop a Curriculum
DCSI	Department of Cottage and Small Industries
DoL	Department of Labor
EC	European Commission
ECO	Examination Controller Office
EU	European Union
FCAN	Federation of Contractors' Association Nepal
FNCCI	Federation of Nepalese Chamber of Commerce and Industries
FNCSI	Federation of Nepalese Chamber of Small Industries
HAN	Hotel Association Nepal
HR	Human Resources
HRD	Human Resource Development
ILO	International Labor Organization
KII	Key Informant's Interview
LMI	Labor Market Information
LMIS	Labor Market Information System
MIS	Management Information System
MoA	Ministry of Agriculture
MoICS	Ministry of Industry, Commerce and Supplies
MoEST	Ministry of Education, Science and Technology
MoLESS	Ministry of Labor, Employment and Social Security
MoCTCA	Ministry of Culture, Tourism and Civil Aviation

NATHM	National Academy of Tourism and Hotel Management
NSCO	Nepali Standard Classification of Occupation
NPC	National Planning Commission
NSTB	National Skill Testing Board
NVQ	National Vocational Qualification
NVQF	National Vocational Qualification Framework
NVQS	National Vocational Qualification System
OJT	On the Job Training
OS	Occupational Standard
PCC	Policy Coordination Committee
PSU	Policy Support Unit
REBAN	Restaurant and Bar Association of Nepal
RPL	Recognition of Prior Learning
SC	Steering Committee
SDC	Swiss Development Cooperation
SEP	Skills for Employment Project
VSDA	Vocational Skills Development Academy
STC	Skill Training Center (DOL)
TC	Technical Committee
TD	Training Division
TU	Tribhuvan University
TVET	Technical Education and Vocational Training
TVET-MIS	Technical Education and Vocational Training Management Information System
TVET-PP	Technical Education and vocational Training Practical Partnership
TITI	Training Institute for Technical Instruction
TNA	Training Needs Assessment
TVET	Technical Vocational Education and Training
UNDP	United Nations Development Program
WBL	Work Based Learning

Contents

List of Abbreviations	3
Contents	5
Executive Summary.....	8
Review of Progress against Baseline Information of 2018.....	13
1 Introduction.....	13
2 Overview of TVET – Practical Partnership Project	14
3 Expected Results and Key Features	15
4 The current assignment.....	15
5 Methodology Used.....	16
6 Desk Review	17
7 Key Informants’ Interview	18
8 Data Analysis and Presentation	19
9 Results and Findings.....	21
9.1 Equitable Access in TVET.....	21
9.1.2 Basis of TVET Institution Establishment or Skills Training Selection.....	21
9.1.3 Scholarship Provisions in TVET	22
9.1.4 Type of TVET Institutions in Operation.....	23
9.1.5 Type of TVET Programs in Operation	23
9.2 TVET Relevance.....	24
9.2.1 LMIS: Current Situation in Nepal	24
9.2.2 Tracer Study of TVET Graduates	25
9.2.3 Demand Forecast	26
9.2.4 Private Sector Involvement in Selecting and Prioritizing TVET Programs	26
9.2.5 Experiential Learning with Business and Industry	27
9.2.6 Training Modality	28
9.2.7 Curriculum Development and Revision Process.....	29
9.3. TVET Quality.....	30
9.3.1 Assurance of Quality Input/Learning in TVET.....	30
9.3.2 Assurance of Process Input in TVET	31
9.3.3 Assurance of Outcome of Learning in TVET	31
9.3.4 Assurance of Effective Programs	32
9.3.5 Switching TVET Programs.....	33

9.4. Integration and Mobility in TVET Programs.....	34
9.4.1 Assurance of RPL in TVET.....	34
9.4.2 Functioning of NVQF in TVET	34
9.4.3 Skill Standard Development/Revision Process.....	35
9.4.4 Credit Transfer in TVET Programs	35
9.4.5 Nepali Classification of Occupations	35
9.5 TVET Policy Implementation.....	36
9.5.1 The Situation of TVET Strategy and Road Map.....	36
9.5.2 TVET Implementation Plan.....	36
9.5.3 Major Initiatives of TVET Policy Implementation.....	37
9.5.4 Human Resource Development in TVET.....	37
9.5.5 Capacity Development in the TVET Sector	39
9.5.6 TVET Structure under Federalism	40
9. 6. TVET Implementation Management.....	41
9.6.1 Effective Coordination Mechanism in TVET	41
9.6.2 Assurance of Progress of Policy Implementation	41
9.6.3 Coordinated Funding and Financing for Sustainable TVET.....	42
10 Progress made in TVET Implementation in 2019	44
10.1 Equitable Access in TVET.....	44
10.1.2 Scholarship Provisions in TVET	44
10.1.3 Type of TVET Institutions in Operation.....	45
10.1.4 Type of TVET programs in operation.....	45
10.2 TVET Relevance	46
10.2.1 Current Situation of LMIS in Nepal	46
10.2.2 Tracer Study of TVET Graduates	46
10.2.3 Demand Forecast	46
10.2.4 Private Sector Involvement in Selecting and Prioritizing TVET Programs	47
10.2.5 Experiential Learning with Business and Industry	47
10.2.6 Training Modality	47
10.2.7 Curriculum Development and Revision Process.....	48
10.3. TVET Quality.....	48
10.3.1 Assurance of Quality Input/Learning in TVET.....	48
10.3.2 Assurance of Process Input in TVET	48

10.3.3 Assurance of Outcome of Learning in TVET	49
10.3.4 Assurance of Effective Programs	49
10.3.5 Switching TVET Programs.....	49
10.4. Integration and Mobility in TVET Programs.....	50
10.4.1 Assurance of RPL in TVET	50
10.4.2 Functioning of NVQF in TVET	50
10.4.3 Skill Standard Development/Revision Process.....	50
10.4.4 Credit Transfer in TVET Programs	50
10.4.5 Nepalese Classification of Occupations	51
10.5 TVET Policy Implementation	51
10.5.1 Situation of TVET Strategy and Road Map.....	51
10.5.2 TVET Implementation Plan.....	51
10.5.3 Major Initiatives of TVET Policy Implementation.....	51
10.5.4 Human Resource Development in TVET.....	52
10.5.5 Capacity Development in TVET.....	52
10.5.6 TVET Structure under Federalism	53
10. 6. TVET Implementation Management.....	54
10.6.1 Effective Coordination Mechanism in TVET	54
10.6.2 Assurance of Progress of Policy Implementation	54
10.6.3 Coordinated Budgeting/ Funding in TVET	54
11 Conclusion	55
12. Suggestions/Recommendations for future improvement	57
List of References.....	66

Executive Summary

The Dakchyata TVET Practical Partnership Project (EU financed, managed by British Council) has come into existence to enhance the capacity and coordinate the role of the Government of Nepal in the TVET system and improve the TVET governance. Dakchyata oversees Results areas 2 and 3 under the above Programme. This assignment is the part of the Result area 3 of that Project: to support the M&E panel providing information on TVET reform progress, with respect to the issues identified and baseline information documented in the original Situational Analysis Report, prepared at the beginning of 2017. The review was conducted in 2018 and the baseline information of 2018 has been reviewed again in 2019 and is in this report presented as the Annual Review of the current situation of TVET with respect of policy issues related in the baseline study of 2018.

A team of three consultants deployed by the Dakchyata Project carried out the Annual Review (hence: AR) of the baseline study of TVET implementation and reform, on the basis and as a continuum of the studies conducted in 2017 and 2018. By applying the survey tools, key informants were interviewed, and candid information received from them. Information of key informants and secondary information were analysed in sequential clusters and presented in this report. Cluster-wise information is summarised as:

The basis of establishment of training institutions or selection and prioritization of TVET programs are done differently from one institution to another. Some of them take their starting point in research reports, TNA reports or in the plans and projections of central and provincial governments. Others select the TVET program requests made by local authority, individual training recipients or the requests received from business and industry. Thus, there is no reliable system to establish training institutions, especially for TVET long-term programs. Particularly some projects such as SEP, ENSSURE and Dakchyata have initiated implementation of vocational programs led by business and industry through the apprenticeship model. There are different provisions to award scholarships to trainees with different headings and criteria. Such headings are special scholarship, classified scholarship and intelligent scholarships, particularly for long and academic courses. Recently, Dual VET has been implemented through an apprenticeship mode together with business and industry. Most of the short-term vocational courses supported either by development partners or government are for free. TVET training varies from livelihood training of one week to four-years of bachelor's degree program.

LMIS is a big issue of the TVET sub-sector. However, there is no common understanding of LMIS among TVET stakeholders. The LMIS which prevails in TVET is not fully functional. A LMIS portal has been established, but it is uploaded with supply side information only. The system needs to connect with both demand and supply side information. Some initiations are still being taken to upgrade and make it function. Some institutions conduct tracer studies, but information of such studies have not been linked to LMIS. In absence of proper LMIS, the relevance of TVET programs is always at stake.

Tracer study though is an important part of TVET programs to assess the status of graduates. Some institutes have made it a regular activity of their programs, but the information of such studies is not linked to the national labor market information system. Most of TVET providers consider it just an activity of formality. Therefore, there is no significant progress in LMIS.

There is demand forecast at institutional level through TNA and other research efforts to develop new programs and implement such, but no concrete data in this respect are available at national level. There is a provision of demand forecast in the document of periodic plan of National Planning Commission and the CTEVT strategic plan, but it is less effective for purposes of demand forecast of skilled workers. Also, CBS only has data regarding the population with employment and unemployment. Thus, the system to forecast and project skilled human resources is in dire need to be developed at national, provincial and local levels.

The private sector is involved mostly in pre-activities of TVET implementation such as in TNA, DACUM workshops and curriculum development processes. The involvement, however, is on an individual basis. Professional associations such as FCAN, REBAN, and HAN are leading skills sector committees in CTEVT. Such efforts need to be implemented in all sector committees. In absence of industry-based experiential learning in TVET, there used to be a mismatch between demand and supply. Now we are seeing more involvement of business and industry in TVET. Recently, Dual VET as an apprenticeship model is in operation and more than 100 trainees are undertaking training in business and industry. In many programs, On-the-job training (OJT) is made mandatory and trainees are placed in business and industry. The service sector is practicing this experiential learning well, but the manufacturing sector which also demands such efforts is still not particularly effective in this endeavour. Though there are some practices of industrial experiential learning in the form of OJT and internship, remarkable partnerships in TVET are absent. Therefore, there is less exposure to trainees in skills demanded by industry and business. This said, the industries are right now

also not well equipped to provide such experiential training. Coordination systems between industry and training provider are not established. The existing labor law is also not favourable for apprenticeship modality of training delivery.

TVET training programs are implemented in different ways which differ from institution to institution. Some institutions implement vocational courses within the training institutions. Others provide in-house training and place their training through OJT. Dual VET has started, together with business and industry. Other forms of training delivery modality are apprenticeship with business and industry and partnership with Professional Associations, Municipalities, and Boards.

Curriculum development and revision processes are not common standard, to ensure updates and new developments. It is CTEVT which has the national mandate to develop and revise curricula. The private sector training institutions implement CTEVT designed curricula, but most of the other public institutions implement their own curricula, which are not properly designed and revised.

For the quality input in TVET, National Occupational skills standard (NOSS)/National competency standards (NCS), curriculum, learning materials, trained and industry experienced instructor, equipped infrastructures, assessment and evaluations are some of the main indicators. Experts and sector committee members should jointly develop and revise TVET curricula.

Assurance of effectiveness of TVET programs can be made based on trainings solely developed by business and industry, like NOSS/NCS, demand driven curricula, equipped infrastructure, industry experienced and trained instructors, implementation of NVQF and assessment and evaluation conducted by third party. However, some TVET providers claim that their programs are highly effective due to high rate of employment and certificates and awards provided by employers, which they have received against quality graduates.

Migration to foreign employment is a critical issue but a well-developed apprenticeship approach can address the issue of migration and retaining workers in industry for longer periods. The relation and information of skills level of graduates can help obtain employment in the same industry easily. For such an approach to succeed, labor friendly laws are to be enforced.

Recognition of prior learning (RPL) system is developed and pilot tests have been conducted in some occupations. The result of pilot test of RPL is encouraging and some human

resources needed for RPL have in fact been developed. However, they need to be deputed properly. A separate RPL desk needs to be established. A national vocational qualification framework (NVQF) with L1-L8 has been developed and submitted to Cabinet for approval. The Cabinet decided to have further improvement in the NVQF document before they can grant approval. A separate autonomous authority needs to be established for the effective implementation of NVQF. There is no credit transfer system as such in most of TVET programs. The provision may be addressed, once NVQF becomes effective. There is an indirect provision of credit transfer, which has provision in curriculum within CTEVT system. The Nepali Classification of Occupations (NSCO) exists, which was developed by initiation of ILO and CBS, however it is not complete and needs further refinement. In this area, there is no further progress from the status of AR 2018.

The document TVET policy 2012 itself is comprehensive; however, implementation of the TVET policy is weak. Despite of the policy dialogue workshops taking place throughout the country, the policy dissemination is not effective. Few people in high levels are aware of the TVET policy, but the local level people and even policy level people of ministries such as Ministry of Industry and Ministry of Agriculture seem not to be fully aware of TVET policy. There was a policy road map and strategies from 2012-2018 in implementation, but after that there is a vacuum of the policy. Once the nation entered a federal structure the policy of 2012 will be subject to amendment. The road map with strategic plan and an implementation plan document were developed and submitted to National Planning Commission, but it has not come out for circulation. In line with the policy document, the TVET Act has been amended and is in a draft form. The document is in the process of ratification by Parliament. However, there is no mandated authority which is responsible for taking ownership to implement the policy.

There are initiatives taken regarding TVET access, relevance, quality and integration. Similarly, there are remarkable achievements in the field of TVET expansion. Back in the 1980s there were only five institutions, but presently there are more than 1,000 institutions in formal TVET and 1,081 TVET providers are offering vocational short courses. NVQS has been developed for inclusion, but no significant achievement is made on the policy intent of sustainable and coordinated funding. A lot of projects working in isolation are creating additional workload for limited human resource and facilities rather than being supportive to TVET programs. More than 60 Policy dialogue workshops were conducted in assistance with

SKILLS project of UNDP, however, the effectiveness of TVET implementation at all levels is not satisfactory.

Human resource development within TVET sub-sector is gradually picking up. By now, 6,198 Skills Test Assessors and 456 Skills Test Managers have been trained and certified. Similarly, further education of B. Tech. has been provided to personnel involved in TVET. There are 7 staff that has been undergoing master's degree in TVET. Numerous professional trainings in-country and abroad are being provided to TVET professionals. The Skills Development Project supported by ADB provided scholarships to TVET professionals and they are returning to their profession after further education and training. TITI provided 6,000 person/week's trainings on various levels during this year. However; despite the achievements made in human resource development, there is no systematic planning of HRD on either center, province, and local levels. Similarly, there is no provision of lifelong learning and career progression in the new labor act. There is no system for positive recognition of skills upgrading and testing within the industry.

CTEVT has opened provincial offices with clear responsibility given and approved by the Council. Similarly, Ministry of Labor has handed over thirteen training institutions to Province Governments. The Ministry has established autonomous Skills Training Academies in Lalitpur, Rupandehi and Sunsari. Agriculture and Livestock Department has equally handed over its training centers to respective provincial governments. The concept document of federalism in assistance with SDC is developed, but the developed document should be implemented by the Government, with full ownership .In short: The nation is in a transition phase - every authority is in the process of developing policy, laws, rules and regulations at all levels, from center to Palika.

Review of Progress against Baseline Information of 2018

1 Introduction

Nepal is facing the development challenge of massive poverty and unemployment and seeking various ways of addressing these challenges, resulting in reducing poverty, increasing employment opportunities, improving income level of its people and ultimately improving overall economic performance of the country. In this context, skill development and poverty reduction has been selected as the main development goal of the recent policies and plans.

Experience from the past suggests that human resource development is to be linked with economic development in order to increase the absorption capacity of trained, skilled human resources into productive employment and earning. Technical Education and Vocational Training (TVET) could become beneficial for both individual and society if it is linked with the country's socio-economic development plans.

Socio-economic prosperity of any country depends on the availability of natural resource, but also in its ability to develop and efficiently utilize the human resources needed for the development process. Appropriately trained human resources can speed up the development processes; be it economical or industrial. Skills and competences acquired through appropriate training and learning would be meaningful for both individual and society. The individual is benefited from employment and earning, and the nation will be benefited through the increase in productivity and income (King, 2007).

The poor coordination among the institutions offering TVET have resulted in fragmentation of skill development programs, variations in training standards, duplication of resources and unaddressed access and equity in training opportunities. Meanwhile, absence of collaborative policy implementation with plan and periodic participative reviews of the policy and its implementation has only contributed to problem in the TVET sector of the nation. In this connection, the TVET Practical Partnership Project (TVET-PP), financed by the European Union (EU) and managed and implemented by the British Council is expected to collaborate closely with TVET projects that intend to support Nepal's TVET policy. The current fragmentation of TVET system is expected to require extensive support to develop effective systems to ensure quality and relevant TVET programs, to be equitably accessible to all who aspire for such.

Improving the quality of TVET programs being offered by both public and private institutions, ensuring equitable access to TVET opportunities, integrating various modes of learning and pathways within national TVET framework and ensuring efficiency in TVET by improving governance, financing and inter-agency coordination are the major thrusts of any TVET policy. Enabling CTEVT to carry out the national role of quality assurance and other mandated responsibilities in the current devolved structures in federal Nepal, TVET – PP intended to support Government of Nepal (GON) in the above reform needs of Nepal, including supporting Ministry Education, Science & Technology (MoEST) in implementing the vocational stream in school education efficiently through partnership modalities to make it market relevant.

2 Overview of TVET – Practical Partnership Project

GoN realized the need for developing a well-functioning, market relevant, high quality and unified Technical Vocational Education and Training (TVET) system in contributing to increasing economic growth and prosperity. Practical partnerships between business and industries and potential employers in the public sector is expected to meet the skills needs of the labour market also contribute to improve quality and relevance of TVET programs. With these expectations the GoN (through MoEST) and the EU entered into an agreement in December 2016 to implement the Dakchyata – TVET Practical Partnership Project. The project implementation takes place over five-years from 2017-2021, with funding totalling approx. EUR 14 million, to handle Result Areas 2 and 3 of the 3 Result Areas (Result Area 1 is handled by the Council for Technical Education and Vocational Training (CTEVT)).

The Dakchyata PPP, implemented by the British Council, is under the leadership of MoEST, GoN as well as by CTEVT. The Project aims to contribute to Nepal's inclusive and sustainable growth through investment in human capital and by creating better employment opportunities.

The specific objective is to strengthen and implement more effective policy in the Technical and Vocational Education and Training (TVET) sector, responsive to labour market needs. The programme will pilot an integrated Public-Private Partnership approach in three key economic sectors: i) Agriculture ii) Construction iii) Tourism, offering opportunities for promoting the transition to employment and earning within a greener, climate-resilient, low-emission economy.

3 Expected Results and Key Features

- I. Result Area 1: Quality of the TVET provision and implementation scaled-up and reach-out to the most disadvantaged ensured;
- II. Result Area 2: Innovative Public-Private Partnership models piloted to enhance the relevance, quality and sustainability of TVET provision in Nepal.
- III. Result Area 3: Enhance the capacity and coordination role of the Government of Nepal in the TVET system and improve TVET governance

Key features (here focussing on Result Areas 2 and 3, managed through Dakchyata):

- Establishment and testing of Public-Private Partnership (PPP) models in the TVET sector in order to help bridge the current gap between the supply and demand sides of the labour market.
- Promote shared ownership of the TVET system, and to support the sustainable development and delivery of effective TVET policy.
- Act as a catalyst for improved coordination within the TVET sector, promoting new methodologies for ensuring supply meets demand and thus, boosting employment and equal opportunity for young graduates.

4 The current assignment

One of the major results areas of EU supported Dakchyata TVET-PP is to enhance the capacity and coordination role of the Government of Nepal in the TVET system and improve the TVET governance under Result Area 3 of the TVET – PP. This assignment aims for supporting the M&E panel providing information on TVET reform progress with respect to the issues identified and baseline information documented in original situational analysis report prepared at the beginning of 2017 (Activity 3.3).

A team of three experts have been engaged by the Dakchyata TVET-PP Project to review the baseline information and collect information related to progress made in 2019 with respect to the progress and issues identified in 2018 by reviewing the current status of TVET policy implementation, relevance of TVET supply with the labour market demands, quality assurance mechanism and governance in the current context. The team is expected to design review method and approach, prepare tools for data collection, collect data from both primary and secondary sources, and process and organize information with respect to each

of the issues identified in the original baseline report. The team is expected to present the report to the members of monitoring/steering panel of the TVET-PP project and to other relevant quarters.

Purpose:

The purpose of this assignment is to support and capacitate MoEST and CTEVT to periodically review and document progress of the TVET reform process (TVET policy implementation, TVET donor support implementation, and PPP reform).

Objectives:

Carry out the review of the third Annual Review of TVET Policy Reform 2019 (TVET policy implementation, TVET donor implementation and PPP reform.)

Document the progress with respect to baseline concerning TVET policy implementation arrangements, reforms made in TVET in respect to relevance, improvement of TVET quality, integration of various modes of learning and status of overall governance in the changed context.

Collect current baseline information of key issues of 2019, final required results for TVET reform and planned activities to achieve required results of TVET reform based (Activity 3.3.4)

Prepare review report and submit to Dakchyata TVET-PP Project office by mid-2019.

5 Methodology Used

This status review study is basically guided by a participatory approach, utilizing qualitative research methods. Various levels of consultation and participatory approaches have been applied, particularly in reviewing progress made within policy implementation. In effect, stakeholders were considered as main source of information concerning collection of information and documenting changes, which have occurred in TVET policy implementation as compared to baseline information prepared a year ago (2018). In a participatory approach, primary stakeholders are active participants who provide first-hand information. Considering this notion of participatory approach, consultation and review of the progress made was the focus of the study. Key informants' interview was adopted in this study to generate relevant information, but also to increase ownership of the review.

Recently published or unpublished reports and official document were reviewed to generate secondary information as needed. Thus, both secondary and primary information was used to review the progress in policy implementation information with respect to the key issues identified in the baseline study of 2018. Primary information collected was supplemented with reviewing relevant documents and recent studies. Drawing on both sources, information collected was used to provide a clearer status of the progress made with respect to the issues identified by the baseline study of 2018 and explain the progress status of TVET, along with the primary information collected in 2019, using Key Informant's Interviews (KII)

Data collection and analysis followed through a three-stage approach in concluding the situational review assignment. An initial phase included reviewing selective study reports and related document of TVET policy implementation, including various reference publications to support the discussion. Based on this document review, a general framework for monitoring the implementation of TVET policy was prepared (please refer to Annex 1). During the first phase, a framework was prepared, in consultation with the project officials along with the preparation of open-ended questions in order to generate relevant qualitative information from the stakeholders (please refer Annex 2 and Annex 3). The second phase included the collection of qualitative data from key informants. Semi-structured open-ended questions were used (Please refer Annex 3) to collect qualitative information from the selected informants. Finally, in the third phase the information collected in the first and second phases was processed and analysed to produce the written review report. The three stages of data collection are presented in more detail in the following section.

6 Desk Review

To get the overall insight of TVET policy implementation in response to 6 clustered issue areas, with issues of each cluster identified in the baseline study the various pertinent documents like project documents of TVET related projects, annual progress reports of these projects, recent study reports in TVET policy-related areas and government publications related to TVET were reviewed. The list of the documents reviewed is given in Annex 4. Similarly, outcomes of the policy dialogue process conducted by SKILLS project in which views of a TVET expert committee was included were also reviewed and necessary facts and information were collected. Likewise, to get more insight and information on the issues identified by the baseline study in 2018, recent reports and publications of TVET related project were also consulted.

7 Key Informants' Interview

After collecting information from the secondary sources, the review team consulted with three categories of informants. namely: (i) Key stakeholders (ii) Targeted beneficiaries including private sector representatives, and (iii) Donors supporting TVET and projects supported by them.

(i): **Key stakeholders:** Under the key stakeholders the study team consulted with the key informants of TVET line ministries such as Ministry of Labor, Employment and Social Services (MoLESS), Ministry of Industry, Commerce and Supplies (MoICS), Ministry of Education, Science and Technology (MoEST) as they were all related with the TVET system of the country and aware of the TVET policy. They are also represented in the technical committee under the Policy Coordination Committee. Likewise, the study team also consulted with the informants from Ministry of Culture, Tourism and Civil Aviation, (MoCTCA), Ministry of Agriculture (MoA) and Council for Technical Education and Vocational Training (CTEVT) to document progress on TVET policy implementation.

(ii): **Targeted Beneficiaries Including Private Sector:** Under this category, the review team consulted with the key informants of the National Federation of Chamber of Commerce and Industry (FNCCI), National Federation of Cottage and Small Industry (FNCSI), Federation of Contractors' Association, (FCAN), Hotel Association of Nepal (HAN) and other industry owners to examine the situation of the private sector involvement in TVET developments.

(iii) **Consultation with Development partners and Projects supported by them:** The review team consulted with the TVET experts, who were directly involved in the TVET development in Nepal. Development partners such as, SDC supported project: NVQS, World Bank supported project EVENT II, UNDP and personnel of the projected supported by European Union were consulted and relevant information in response to the issues in TVET were collected. Similarly, projects supported by development partners such as Skill Development Project, EVENT project, ENSURE project, NVQ Project, TVET-PP project and SEP supported by DFID were also consulted. (A list of organization and individual contacted is given in Annex 4).

8 Data Analysis and Presentation

The information gathered from the field was transcribed, coded, categorized and analysed, and thereupon linking with the study objectives and TVET related policy issues. The data obtained from desk review and key informants' interviews have been cross-checked and verified. The detail analysis has been presented in this AR-report. While analysing information on TVET policy issues, the current status of policy implementation is documented under the below-mentioned 6 key clustered policy issues. Information generated in each of these policy issues is also summarized in a tabular matrix. The total of fifteen TVET policy issues (taken as base issues identified in Annual Review of 2017) under which the information is organized and presented are:

1. Equitable Access in TVET

- 1.1 Basis of TVET institution establishment or selection of skills training programs
- 1.2 Scholarship provisions
- 1.3 Type of TVET Institutions in operation
- 1.4 Type of TVET programs

2. TVET Relevance

- 2.1 LMIS current situation in Nepal
- 2.2 Tracer study of TVET graduates
- 2.3 Demand forecast
- 2.4 Private sector involvement in selecting and prioritizing TVET programs
- 2.5 Experiential Learning with Business and Industry
- 2.6 Training Modality
- 2.7 Curriculum development and revision process

3. TVET Quality

- 3.1 Assurance of Quality Input/Learning
- 3.2 Assurance of Process input
- 3.3 Assurance of Outcome of learning
- 3.4 Assurance of effective programs
- 3.5 Switching TVET programs

4. Integration and mobility in TVET programs

- 4.1 Assurance of RPL in TVET
- 4.2 Functioning of NVQF in TVET
- 4.3 Skill standard development/ revision process

-
- 4.4 Credit Transfer in TVET
 - 4.5 Nepali classification of occupations (NESCO)
 - 5. TVET Policy Implementation**
 - 5.1 Situation of TVET strategy and Road map
 - 5.2 TVET implementation plan
 - 5.3 Major initiatives of TVET policy implementation
 - 5.4 Human Resource Development in TVET
 - 5.5 Capacity Development in TVET Sector
 - 5.6 TVET Structure under Federalism
 - 6. TVET Implementation Management**
 - 6.1 Effective Coordination Mechanism in TVET
 - 6.2 Assurance of progress of policy implementation
 - 6.3 Sustainability and Financing

(The responses generated among the participants of KII in each of the issues listed above are given in Annex 5).

9 Results and Findings

In this section, information generated from key informants' interviews of key stakeholders and beneficiaries were processed and presented as the current status on each of the issues identified in the baseline study of 2018. The field information is also supplemented with the information generated from recent document reviews. The information on the current status as progress in each of the issues stated in the previous section is presented in sequential manner. The TVET policy issues are clustered around TVET policy implementation arrangements, TVET program relevancy, quality assurance mechanism, curriculum relevancy, recognizing prior learning, role of the private sector and capacity development.

9.1 Equitable Access in TVET

9.1.2 Basis of TVET Institution Establishment or Skills Training Selection

In Nepal, TVET sector strengths include its comprehensive apex institution, strong skills testing through the NSTB, a superb staff-training organization: the Training Institute for Technical Instruction (TITI), competency-based curriculum development, growth of private training providers, expansion of short-term skills training for disadvantaged groups through externally funded projects, and piloting of performance-based contracts (like ADB, Australian Aid).

The establishment of training institutions or the selection of training programs is taking place based on rapid research or training needs assessment. Similarly, the base is made on the requests or demands of local authority, industry and business, individual requests and human resource projection or plans of the central and provincial governments (NSTB/CTEVT). Quality infrastructure, technical teams of management, a sound financial situation, quality human resources, analysis of demand and supply of human resources through research and TNA, geographical mapping and proper feasibility assessment are some of the key indicators to select TVET programs and establishment of TVET institutions. However, geographical mapping is only done once institutions and programs are in operation. Such initiatives were done in the past and are being continued in 2019 as well. The feasibility study before affiliation is also done on a rudimentary basis. Moreover, there is no reliable system to identify the programs and establishment of training institutions, particularly for long term programs (NVQS/ NSTB/ Swisscontact/CTEVT). The TVET system is still weak in generating demand-

side information, identifying occupation on demand and prioritizing new programs. A system of collecting, processing and disseminating labor market information based on supply and demand information is yet to be developed.

CTEVT-affiliated courses can apply and qualify to implement the vocational courses supported by EVENT (EVENT II). The programs within Skills Training Academy of MoLESS are selected as per the curriculum developed with TNA input in collaboration with CTEVT (VSDA). Cottage and Small-Scale Industry Training Center implements the vocational training courses based on the requests of training recipients (CSSI). There are programs from Window 1, Window 7 and up to Window 5, and vocational skills are included with the concept of Challenge fund to share 50-80% of the budget in training programs. The programs focus on industry led activities to train industry employees and migrant workers (SEP/DFID). However, participation and involvement of businesses and industries, work-based learning structure and communication network between employers and training providers is still weak and require attention.

9.1.3 Scholarship Provisions in TVET

CTEVT provides special scholarships to DAG people through a separate budget allocated by the Government. Such students receive funds for all expenses, including food and accommodation. Similarly, 10% of the trainees receive classified (as per criteria set by GON) and intelligent (meaning top marks in the entrance and yearly or semester examinations) scholarship in each academic course. However; large numbers of out-of-school youths from low income strata are not being accommodated in technical and vocational education from such a scheme. CTEVT should explore innovative TVET strategies to accommodate a larger number of youths, who aspire to join TVET programs, but with no charges to the individual students. TECS is an attempt to offer TVET to low-income groups and more widely geographical coverage of TVET offerings.

All vocational courses are free of cost. CTEVT provided various vocational trainings to 42,000 people in all provinces and this year (2019), additional funds have been provided by the Government. CTEVT-provided vocational trainings are also earmarked for convicts in jail. CTEVT also started dual VET (Apprenticeship) for 100 students supported by ENSSURE Project in the fiscal year 2075/076 NSTB/R&I/CTEVT: There are different types of

scholarships for equity and inclusion. Access overall to TVET is good, as there are training institutions throughout the country. Donor support for equity and inclusiveness is pretty good too, since these give top priority to access and gender equality. There are study reports available on these issues (NVQS/ NSTB/Swisscontact). All trainings are free (CSSI). All vocational training courses are free for remote DAG, like Dalit, single women and disabled persons (VSDA). All in all, vocational courses to 115,000 people with approved criteria under result and voucher-based are being provided during the project period. A total of 6,000 students of Diploma and TSLC programs receives scholarship. The target of the project is divided by the number of years of the project period and the target is achieved in each year. They have provided training to 25,000 people and 1,200 scholarships to Diploma and TSLC-level students this year (EVENT II). Participants have to pay NRS 25,000 per program. There is no scholarship available, but there are cases of individual sponsorship. Special courses such as housewife, housemaid and caregiver are provided to DAG people. Academic and vocational courses are also being offered. The vocational courses of three months duration are conducted, based on the demand of business and industry or individual request. There used to be general courses in the past, but now more specialized courses such as Indian cook, Chinese cook, and continental cook are being delivered (NATHM). However, a project-based approach in vocational skill training is not sustainable. Project-based approach should gradually be shifted into program-based approach, to accommodate all youths who want to join in skills training programs in a sustainable manner.

9.1.4 Type of TVET Institutions in Operation

There are institutions in operations with different modalities, such as constituted (operated by CTEVT own management), affiliated institutions (privately managed), institutions managed by boards/trusts, institutions operated in partnership (such as Ilam Prashikchan Kendra) together with FNCCI, Technical Education at Community Schools (TECS) and recently also the 9-12 technical education stream, run by MoEST. The stated institutes offer academic courses up to Diploma level and mostly demand-driven vocational courses. Universities offer technical and professional degree courses (NSTB/R&I/CTEVT)

9.1.5 Type of TVET Programs in Operation

The TVET programs of different levels from livelihood courses to university degrees are being offered in Nepal. These programs can be categorized into two groups: (a) Formal technical

and vocational education and Technical and vocational training and professional development training programs.

Formal TVET programs can be listed as follows:

- Bachelor in Technical Education (B. TECH./BE/ B. SC. Ag /B. Forestry /B.HM and above)
- Diploma/Proficiency certificate
- Technical School Leaving Certificate (TSLC) program
- Technical education in secondary schools as a separate stream
- 9-12 Technical Stream is implemented (by MoEST in high schools). This stream is a new initiation in TVET in 2019

(b) Non-formal Skill training and professional training programs are of shorter duration in terminating nature but can be linked into different modules of different skills qualification levels and are as follows:

- Skills Assessors Training
- Skills Managers Training
- Demand based vocational short courses (NSTB/CTEVT)
- Instructor Training and
- Curriculum development expert's training

The programs of different levels are affirmed by constituent and affiliated institutions (R&I/CTEVT). Other public institutions under different Ministries and private institutions mostly offer vocational short courses either budget allocated by the government or projects supported by different development partners (VSDA, CSSI).

9.2 TVET Relevance

9.2.1 LMIS: Current Situation in Nepal

There is a functional LMIS with training information portal, supported and developed by ILO and handed over to CTEVT for its operation. CTEVT also has its own LMIS within CTEVT website, but the system needs to be updated for its effective use. CTEVT also has TMIS for effective administration of examinations and certification. The system is being operated for the diploma level programs (NSTB/ECO/CTEVT). MoEST and CTEVT are jointly developing

LMIS, which is in a final stage. Tracer studies of the TVET graduates are conducted according to plans by CTEVT each year, but unfortunately the information obtained from tracer studies is not linked to the LMIS of CTEVT (R&I/CTEVT). CTEVT enrolls more than 50,000 students for Diploma and TSLC-level each year. They have developed TMIS for Diploma level programs. TSLC and other programs are still managed manually. Linking TMIS to LMIS seems far away right now (ECO/CTEVT). LMIS is scattered and needs to be consolidated. LMIS as a system is presently not working well; no studies of LMIS are done and reports are not published on a regular basis. Further, institutionalization and ownership of the LMIS is missing. It seems that donor intervention is essential to develop a relevant and effective LMIS. (NVQS/ NSTB/Swisscontact). They report that LMIS is weak. Employment shops were operated in some districts, but such efforts were not linked to national network (FNCSI). LMIS is not functional (VSDA). Recommendation of local authority and RMA conducted by TTPS are the basis of labor market information system (EVENT II). There are initiatives being taken to develop LMIS (MoEST). Research of demand and tracer studies are conducted each year through consultants. The report indicates that 85% of employment is in hotel management and graduates of travel and tourism involved in self-employment. The information of tracer studies is linked to LMIS (NATHM). LMIS is being discussed for a long time. Some initiatives are made for establishing the system, which is still not reliable. A mandated entity is needed to take ownership and give top priority to consolidate the scattered efforts and ensure the existence of a functional LMIS at national, provincial and local levels.

9.2.2 Tracer Study of TVET Graduates

NSTB-certified graduates were traced in the past and there is a program to trace certified graduates of NSTB in 2019. The information received from tracer study is being used for the development and modification of NSTB programs. However, the information of tracer studies of NSTB certified graduates is not linked to the existing LMIS (NSTB/CTEVT). Demand-related information is not linked to the LMIS portal. The information uploaded and available is dominated by supply-side information. Tracer studies are conducted, but the information from tracer studies is not linked to LMIS portal created within CTEVT (R&I/CTEVT). Follow-up and tracer studies are conducted on a regular basis, but such studies are not linked to LMIS (VSDA). There is no significant progress in LMIS. The system is developed but has limited functions in terms of sustainability. Supply-related data are available to some extent, but demand-related data is yet to be linked to the national LMIS and regular update is required

(SEP). Tracer studies are conducted each year through hiring a consultant (NATHM). There are few efforts made for regular follow-up and tracer studies to be carried out. Such studies need to be legalized and regularized for the effectiveness of TVET programs by linking the information to a functional LMIS.

9.2.3 Demand Forecast

There is demand forecast carried out at institutional level through TNA and other researches, to develop new programs and implement such, but no concrete data are available at national level. Sakchyamta has developed demand collection tools in 2019 by assigning its consultants (NSTB/CTEVT). No demand forecast is done at national level, but by designing the demand- collection tools, demand of skilled human resources of Business and Industry is being captured while developing TVET curricula (R&I/CTEVT). There is no system to forecast demands of skilled workers. Industry may forecast their demands of skilled workers (FNCSI). There are 4,901,000 in urban and 2,185,000 people in rural area who are employed. The total unemployed people both in urban and rural areas are 908,000. The forecasted figure of unemployed people needs major intervention in skills development to prepare them for employment (CBS: Labor force survey III). Demands are collected from all districts (VSDA). There is provision of demand forecast in the document of periodic plan of National Planning Commission and CTEVT strategic plans, but there is less effectiveness of demand forecast of skilled workers. Demand forecast is not possible with the existing system; thus, system improvisation is therefore required (MoEST). Demand is collected through research reports and requests of industries. More requests are received almost every day from small and medium scale industries, but graduates prefer big industries (NATHM). However; claims made in demand forecast by the informants are not convincing, if based purely on the achievements made in TVET programs. Projection of skilled workers is very crucial to make TVET effective, but no such system at national level exists. A demand forecasting system should get top priority and be regularized at national level.

9.2.4 Private Sector Involvement in Selecting and Prioritizing TVET Programs

The private sector is involved in TNA to develop programs but even so, there is overall an insignificant involvement of the private sector in implementation of TVET programs. Few requests of private sector are entertained to develop and prioritize the TVET programs

(NSTB/CTEVT). The private sector is heavily involved in developing TVET curricula. Sector Skills Committees are led by private sector (R&I/CTEVT). There is less involvement of private sector in curriculum development and even less involvement in policy formulation. The involvement of private sector in TVET is still on an individual level (FNCSI). But HAN claims that in recent years, the involvement of private sector is increased. The voice of the private sector is being heard, but more commitment of private sector is also required. HAN is leading the Skills Sector Committee in NSTB. A commercial council for registration is required and working procedure with private sector need to be fine-tuned. (HAN). There is no involvement of private sector in the TVET programs offered by CSSI. However; some business and industry consult for graduate-related information (CSSI). There is private sector involvement increase in CTEVT programs, but less involvement in the programs implemented by other public agencies (FCAN). There is no involvement of private sector in programs, but most of the board members are from private sector in policy level (NATHM). Private sector is involved in sector skills committees. There is more involvement of FCAN, HAN and REBAN in skills standards and curricula development (FNCCI). Private (business and industry) sector involvement in developing human resources is weak. The public training providers produce skilled workers for business and industry, but even so, neither do they involve employers' community in training process, nor do they initiate to capture the skills need of employers. Investment in TVET without addressing the need of employers becomes useless.

9.2.5 Experiential Learning with Business and Industry

Manmohan Polytechnic, KNIT, BTS and BSET have been practicing the apprenticeship model with business and industry. Training with OJT is made mandatory to the programs supported by ENSSURE Project. Many programs offered by CTEVT and its affiliated institution place the trainees on “On-the-job Training” for experiential learning (NSTB/CTEVT). Dual VET apprenticeship started recently and is the first-time initiation in TVET development in Nepal. OJT is the integral part of most of TVET curricula and thus, experiential learning is the core part of TVET programs (R&I/CTEVT). 100 instructors are trained, supported by the ENSSURE project for the staff of business and industry, but it was felt difficult to release instructors by business and industry for training, since companies say that they have a limited number of technicians with them. Industry based instructor training center is to be established to cater the service to the business and industry (TITI). FNCSI was involved in trainings implemented under the Ministry of Industry, Commerce and

Supplies, but the Department has been defuncting since 2018. MEDPA is in a miserable condition now and is not functional in manufacturing industries (FNCSI). Experiential learning is done, but is on *ad hoc* basis, which needs to be systematically regulated with rules and laws (HAN). Trainings are conducted in partnership with private sector in apprenticeship and internship modality (VSDA). There are few trainees (not more than 10%), which performed OJT with partnership in construction companies. Not only vocational training graduates; overseers and engineers should also be placed for experiential learning in industry. Upgrading skills and lifelong learning is the integral part of the industry. It became more important after the devastating earthquake 2072 (FCAN). There is experiential learning in academic courses within Nepal and abroad, but all vocational courses are delivered at institutional level. Trainings sponsored by Vocational Skills Development Academy are implemented. There was one initiation to conduct trainings in partnership with REBAN, but few trainees showed interest due to the free nature of course and thus, this modality has not become effective training (NATHM). Though there are some practices of industrial experiential learning in the form of OJT and internship, remarkable partnerships in TVET are absent. There is less exposure to trainees in skills demanded by industry and business. The graduates produced for garment and shoes industries are not of demanded standard. The industries are also not equipped to provide experiential training. Coordination system between industry and training provider is not established. REBAN and dairy related industries have good response for such training. Manufacturing industries have not yet involved in such activities. Existing labor law is also not favorable for apprenticeship modality of training delivery though there are various merits of apprenticeship modality (FNCCI). Experiential learning is the need of human resource development in the country. It has been practiced, but in a small number which needs to be expanded and made mandatory in each TVET training and education of all levels.

9.2.6 Training Modality

TVET programs are implemented through different training delivery modalities. Some of the modalities in practice are: institution based, institution + OJT, apprenticeship with Business and Industry, partnership with professional associations, municipalities, and boards (NSTB/CTEVT), institution based, dual VET, with OJT and mobile nature (R&I/CTEVT), institutional based (CSSI), Institution based, apprenticeship and internship in partnership with private sector (VSDA) and both institutional and experiential (NATHM). Almost all modalities

have already been practiced, but now dual VET has been started by CTEVT, supported by ENSSURE project. However, most of the institutions offer training programs in in-house set ups, which limits the opportunity of work-based learning to this type of students.

9.2.7 Curriculum Development and Revision Process

Curriculum development and revision process of each institution differ to some extent. CTEVT and NSTB take their basis of training needs assessments or research reports before they plan their curriculum development. They conduct rapid occupational analysis and plan for conducting DACUM workshops, involving expert workers of the occupation in question from both public and private sectors. The outcome of the workshop will be the DACUM profile. The profile is verified through supervisor level expert workers. Based on the verified profile, expert instructors are involved in the task analysis and in the course structure finalization. The prepared draft version of the curriculum is further refined by the Technical Committee Members. Incorporating the comments of the Committee, the final version of the curricula or skills standards are endorsed by the respective boards. The orientation workshops to instructors are conducted if necessary, and dissemination is made for curriculum implementation. Similarly, the same procedure is applied even to revise the curriculum and skills standards. Each curriculum is revised at least within a five-year period (CDD, R&I, NSTB/CTEVT). No new curriculum has been developed and revised for a long time. There is also no coordination with CTEVT for sharing the use of recently developed or revised curricula (CSSI). VSDA implements CTEVT approved curricula (VSDA). Demands are collected from industry and business and curriculum is developed and revised by the institution itself (NATHM). The national standard of curricula by all TVET providers of both public and private sectors is not applied in curriculum development and revision. They claim that they involve business and industry in the curriculum development and revision process, but the involvement is limited to an individual level, which needs to change and be institutionalized in order to acquire enough ownership by business and industry.

9.3. TVET Quality

9.3.1 Assurance of Quality Input/Learning in TVET

Quality input, particularly in TVET learning is crucial. Some of the quality input indicators are reliable and systematically conducted feasibility studies for the affiliation process, equipped and quality infrastructure, trained instructors, demand-driven updated curricula, tests, examinations and certifications and effective monitoring and supervision mechanism. However, most of these indicators are not managed properly or a proper system needs to be developed. Experts and sector committee members need jointly develop and revised TVET curricula (NSTB/R&I/CTEVT). For quality input in TVET to happen, National Occupational Skills Standards (NOSS)/National competency standards (NCS), curriculum, learning materials, trained and industry experienced instructors, equipment and infrastructure assessment and evaluations are some of the indicators. Learning outcome is questionable because TVET programs do not fully address the needs of the job market (NVQS/ NSTB/ Swisscontact). 6,000 person/weeks of training are conducted in various levels. Instructional Skills curriculum is reviewed, and pilot test will be conducted by August 2019. 40 master trainers are given training, drawn from all seven provinces. 100 industry technicians were trained, to make them instructors. 260 TOTs were provided through assistance from the EVENT Project in 2019, but no progress is made on instructor licensing (TITI). Quality training is delivered with the information of tracer study, monitoring and supervision and employment of the graduates (VSDA). Venue verification to income verification is done by third party six times during the training cycle (EVENT II). Certificates and awards provided by employers are being received against quality output (NATHM). Low performance of candidates on terminal examinations is symptomatic of low quality. The performance of many private institutions has been lower than that of public institutions in Nepal. Lack of qualified teachers is a major factor in delivery of low-quality training. This is caused by multiple factors, including insufficient supply, chronic/long-term vacancies, and low attractiveness of remuneration. Other factors are inadequate spending on material inputs, lack of monitoring and evaluation, and lack of incentives for good performance. Quality assurance processes thus leave much to be desired, particularly regarding resources and the authority to compel private providers to follow regulations. Strategies to improve quality include the establishment of national vocational qualification frameworks (NVQFs) and concentration of resources in centers of excellence (ADB, Australian Aid). Quality assurance is the critical aspect of TVET

implementation which needs steep improvement in all aspects, from demand side requirements to employment with dignified earning.

9.3.2 Assurance of Process Input in TVET

Effective monitoring, supervision and evaluation of institutions and programs and follow-up studies of graduates are the process input of quality learning of TVET programs in practice (NSTB/CTEVT). Orientation of curriculum, use of learning media and materials, formative evaluation, supportive monitoring and supervision and experiential learning focus are all vital process input, however, such process input needs to be systematized and regularized to be effective (R&I/CTEVT). Assurance of effectiveness of TVET program can be made on the basis of training, as developed by business and industry, NOSSS/NCS, demand driven curricula, equipped infrastructure, industry experiences and trained instructors, implementation of NVQF and assessment and evaluation conducted by third party are all needed (NVQS/NSTB/ Swisscontact). Lesson plan, schedule, and use of common language and using trained instructor could support process inputs to ensure enhancement of the quality of TVET programs (TITI). Monitoring and supervision six times per training cycle by third party is made mandatory to ensure the learning input (EVENT II). TU conducts evaluation and there is 100% improvement to be seen in academic programs. All graduates are employed and there is more attraction for foreign employment. But no data/ information of vocational courses is obtained due to change in profession after some span of time (NATHM). For the effectiveness of the TVET programs, legalized and regularized follow-up and tracer studies must be conducted at least within three years of time span and based on the information of such studies, programs must be improved. However, such practices are institutionalized, neither at institutional level nor at the national level.

9.3.3 Assurance of Outcome of Learning in TVET

Regular tracer studies linking it to effective LMIS, Skills tests and certification and guaranteed employment are the indicators of learning outcome of TVET programs, but such indicators are not developed and implied to measure TVET outcome. Impact study was conducted in some technical schools at school level. It is still far of as a standard approach for regular implementation (NSTB/CTEVT). Regular follow up and tracer studies, post training support such as career counselling, Timely revision of curriculum to address the emerged demands and technology, Desired level of income, retention of workers in the trained profession are to

be the indicators of learning outcome of TVET programs (R&I/CTEVT). There are no planned efforts for life-long learning and skills upgrading within business and industry. Upgrading rarely takes place (FNCSI). Learning outcome of TVET programs both within and outside of the country is good, due to the laborious nature of Nepalese workers working in foreign employment. In the hospitality sector, people need to be equipped with the latest knowledge and technology for lifelong learning and skills upgrading for better opportunities. Big hotels run their own training institutions to provide in-service trainings (HAN). Minimum 70-80% employment is to be ensured by the training provider, but the amount of income is less than the amount recently determined by the Government. In such cases, MOU with TTPs were done before the rules were enforced. Therefore, the minimum level of income is considered the amount agreed at the time of signing the MOU (EVENT since they cannot enforce the client to implement the minimum wage rate decided by the Government as the Government sometimes increases the wage rate in between program implementation. Workplace-based learning programs are in operation, thus learning outcome is increased (SEP). More than 85% employment is there in case of academic courses (NATHM). Migration to foreign employment is a critical issue, but well-developed apprenticeship approaches can be the answer to the issue of migration and for retaining workers in industry for longer periods. The system can provide benefits to both individuals for having recognized certificate and to industry for having cheap service over a longer period. The relation and information of skills level of graduates can help obtain employment in the same industry easily (FNCCI. Impact studies over at least 5-10 years of time must be conducted along with regular tracer studies to measure the success of TVET programs, which is of course challenging. However, the impact studies will provide the information of the status of economic and social changes in the life of TVET graduates which can help adjust/modify the existing TVET programs.

9.3.4 Assurance of Effective Programs

Retention of the graduates in the trained professions and employment guarantee can assure the effectiveness of TVET programs (NSTB/CTEVT). Quality-training increase of employment demands, increased flow of training seekers, better results achieved and increment in the rate of employment of graduates will ensure the effectiveness of TVET programs (R&I/CTEVT). Skills training provided by CTEVT are not always effective, due to lack of coordination because not enough information from business and industry is obtained from CTEVT (FNCSI). The TVET programs are effective (HAN). Minimum 70-80%

employment is to be ensured through increasing the income level to not less than the agreed amount between EVENT and Technical Training Providers (EVENT II). Matching with demands of skills gap, 620 industries were contacted for TNA in coordination with FNCCI. Sector-wise gaps were identified at micro level such as agriculture, tourism, hospitality, construction, ICT, hydro and light manufacturing (SEP). The TVET programs are not up to the desired standard which needs strong intervention throughout the duration of courses according to their nature, practical exposure to trainees, quality trainers, equipped infrastructure, systematic affiliation process, regular monitoring and supervision of instruction, timely revised curriculum to include changed technology, separate system to regulate and implement training programs, strong collaboration with TTPs and industry/business and industry-endorsed skills standards and curricula with flexible delivery and certification provisions. All these steps can make TVET more effective (FNCCI). However; such steps are not followed in a systematic manner through seeking ownership by all TVET stakeholders.

9.3.5 Switching TVET Programs

Some programs are at the verge of replacement, such as health related TSLC like ANM and CMA. No program is virtually switched yet (NSTB/CTEVT) and no preparations are made for switching the training programs (R&I/CTEVT). New programs as demanded by the job market are replacing the less demanding course such as computer course is replaced with scaffolding (VSDA). Front office training course is closed, and the content of the course is addressed by BHM curriculum (NATHM). In reality, no training program has yet switched or been replaced through utilization of the existing TVET resources, neither has the saturation of demand of any TVET programs been studied yet.

9.4. Integration and Mobility in TVET Programs

9.4.1 Assurance of RPL in TVET

RPL pilot tests have been conducted regarding cook, mason and housekeeping. Provisional certificates were issued to RPL tests to successful candidates. RPL guidelines were developed; migrant returnees were tested and have been certified. National competency development in various occupations is in process (NSTB/CTEVT). RPL is a concept fully institutionalized within skills level L1- L8. The manual of RPL is developed. Necessary human resources for RPL have been trained. Pilot test on three occupations was conducted based on full competency and unit competency evaluation. However, a massive awareness and a viable approach to evaluate RPL and establishment of an RPL desk has yet to be developed. (NVQS/ NSTB/ Swisscontact). RPL is conducted by outsourcing the instructor (VSDA). Coordination for RPL with CEVT is functioning (EVENT II). RPL system is thus developed, but it needs effective implementation (SEP). There is RPL within skills test in CTEVT systems, but not in other institutions (MoEST). CTEVT conducts RPL tests and provides certificates (NATHM). However; a lot of homework of RPL including its qualification levels and concept document have been prepared, but the document has not yet been approved, which is causing delay in its implementation.

9.4.2 Functioning of NVQF in TVET

NVQF and NQF have been submitted to Cabinet through MoEST for endorsement. The framework comprises of L1-L8, including RPL and life-long learning. Authority will take responsibility to involve both public and private sectors once the framework has been ratified (NSTB/CTEVT). NVQ framework has been developed and submitted to Cabinet through MoEST (NVQS/NSTB/Swisscontact). NVQF of L1-L8 has been developed and submitted to Cabinet for approval (EVENT II). As mentioned, NVQF L1-L8 is developed and waiting for approval (SEP) and a proposal for NVQF was submitted to Cabinet. The Cabinet decided to have further input from organizing meetings with related experts. Seeking input through such discussions is expected to take place soon (MoEST). NATHM is a member of the Skills Sector Committee. Involving experts in such committees from both public and private sectors is an important initiation taken, e.g. in the hospitality sector (NATHM). However; the framework of NVQ is prepared, but it has not been approved yet and with the legal provision with strong mandated authority to implement not there yet, implementation is hampered.

9.4.3 Skill Standard Development/Revision Process

Experts are involved in the DACUM process from both public and private sectors and Sector Skills Committee members are involved in development and revision processes. Board is represented 50-50% by public and private sectors to endorse the skills standards (NSTB/CTEVT). NATHM experts are involved in skills standard development and revision processes (NATHM). The lead role of business and industry in sector skills committees is only taking place in limited sectors. Although the experts from business and industry are involved in occupational standard development and revision process, their involvement is at an individual level, which needs to change in order to be institutionalized and make everybody more accountable.

9.4.4 Credit Transfer in TVET Programs

There are some practices taking place regarding credit transfer through incorporating such in curriculum and endorsing these within the criteria mentioned in the curriculum. However, there is no practice yet to transfer credit in TVET programs (NSTB/CTEVT). There are common courses in the first year and from the second year the trainees can join their own trade courses. There is no such provision of credit transfer by its title itself (R&I/CTEVT). There is credit transfer to other universities from NATHM, but not from other universities to NATHM because of TU regulation, since NATMEM is affiliated with TU (NATHM). Once the NVQF is made effective this can change and credit transfer and credit banking will be possible/ functional in future.

9.4.5 Nepali Classification of Occupations

No new intervention is made this year in the field of Nepali classification of occupations (NSTB/CTEVT). There are problems in identification of occupation which affects life-long learning, skills upgrading and demand forecasts (FNCSI). The available NSCO is not up to the standard, so the need is there to improve matters and ensure deeper involvement and participation of employers (business and industry).

9.5 TVET Policy Implementation

9.5.1 The Situation of TVET Strategy and Road Map

Policy related strategies and road map 2014-2018 were developed and implemented. There was initiation to develop TVET strategies and road map supported by ADB, but this did not move forward. (NSTB/CTEVT). A new TVET Act has been developed and is presently in a draft form, capturing responsibility of all levels (Palika to Federal) is in process. So, no policy strategy and road map after 2018 has been developed (R&I/CTEVT). It is often stated that the TVET policy 2012 is a good document, but its implementation is poor. The problem is that no one is responsible and therefore, nobody has ownership to implement the policy. No authentic TVET policy road map and strategy have been made available. There is no strategic plan for the roadmap, and it is not in circulation (NVQS/ NSTB/ Swisscontact). People met during data collection in Department of Cottage and Small-Scale Industry: Training Center, report that they do not know anything about TVET policy (CSSI). EMIS is tied up with TVET policy and programs launched are linked to MOEST's data base system (EVENT II). TVET policy 2012 needs amendments, once the country is going into a federal structure (SEP). TVET road map document with detail strategies was prepared and has been submitted to National Planning Commission, but no information of further status of the document is at hand (MoEST). Due to the direction of road map and strategic plan, NVQF is developed and NATHM is made the member of Sector Skills Committee accordingly (NATHM). In short: The policy road map with strategic and implementation plan needs to be reviewed in the federal context, approved and circulated on all levels of TVET providers.

9.5.2 TVET Implementation Plan

Policy directives/guidelines and apprenticeship guidelines have been developed (NSTB/CTEVT). Equally, TVET implementation guidelines are developed. Guidelines for delivering vocational courses are also developed (R&I/CTEVT). However, there seems to be no plans for TVET implementation (NVQF/NSTB/Swisscontact). The TVET implementation plan was developed, but it is not clear about the TVET implementation status (EVENT II). TVET implementation plan (as a physical document) is not available at national level, even if the plan is said to be there within CTEVT system (SEP). The TVET implementation plan was made an integral part of the TVET Road Map document, but there is no mentioning of the 9-12 technical education streams in the implementation plan document (MoEST). 9-12

technical education stream has been enforced (NATHM). Once the road map is approved, the implementation plan needs to be circulated for its effective implementation and be monitored by the mandated authority.

9.5.3 Major Initiatives of TVET Policy Implementation

There are initiatives taken regarding TVET access, relevance, quality, and integration, but no initiative is taken for ensuring sustainable TVET funding (NSTB/CTEVT). There are remarkable achievements in the field of TVET expansion. There were five TVET institutions in the 1980s, but now there are more than 1000 formal TVET institutions. Similarly, there are 1,081 institutions which offer demand-based vocational training programs. For quality and relevance, demand-driven curricula are developed, effective monitoring and supervision are carried out, certification is exercised, and various types of scholarships are provided for access and inclusion. NVQF has been developed for inclusion. However, no significant achievement is made on the policy intent of sustainable and coordinated funding. Resources are available for TVET programs, but a lot of projects working in isolation are creating additional workload for limited human resource and facilities rather than being supportive to TVET programs (R&I/CTEVT). **But MOEST claims that** there are significant initiatives taken to implement the TVET policy 2012. For example, more than 60 policy dialogue workshops were conducted in assistance with the SKILLS project under UNDP, 9-12 technical education stream has been implemented and expansion of technical schools and polytechnics even to Palika level has been initiated (MoEST). However, the initiatives made in TVET policy implementation are scattered and on an *ad hoc* basis, in absence of proper planning. There is no authority to take regulatory authority for monitoring and supervision to ensure overall TVET policy implementation.

9.5.4 Human Resource Development in TVET

6,198 Skills Test Assessors were trained and certified, 456 Skills Test Managers were trained, and certified, further education of B. Tech. has been provided to personnel, and 7 staffs have been undergoing master's degree in TVET. In addition, numerous professional trainings in and abroad are being provided. Professional visits, seminars, workshops and meetings are also organized and conducted. SDP scholarships to TVET personnel have been provided for further education (NSTB/CTEVT). Thus, several capacity building efforts for enriching TVET professional both in and outside the country are in fact being made effective.

The ADB project provided scholarships to personnel for their further education. For example, several staff are doing M-TVET presently (R&I/CTEVT). However, currently there is no planned system in HRD in place in all TVET-related institutions - it is just a patchwork. The selection process for HRD and even those already trained are frequently transferred, even to irrelevant positions. (NVQS/ NSTB/Swisscontact). 6,000 person/weeks of trainings on various professional levels were conducted, including 40 master trainers in all provinces, 100 industry-based instructors, and 260 people were trained on occupational TOTS (TITI), though skilled workers are not easily available. Mostly, labors are migrating for foreign employment, which needs to be discouraged. Some entrepreneurs are being developed, for the sake of developing entrepreneurs since there are the quality and relevancy issues of the outcome of the programs (FNCSI). There are three pillars in the hospitality sector, such as quality infrastructure, system management and trained human resources. Now, mostly Indian workers have been replaced by Nepali workers. However, continuous improvement is required. The hotel management sector is suffering from a high rate of turnover (HAN). TOT is provided - such trainings are searched by individual instructors and they are nominated for trainings upon their request (CSSI). High level of human resources is available, but the level of trust to such human resource is not high because of their industrial experiential learning. Big industries have their own training departments to groom their technicians, but basic level skilled workers are not available in the market as demanded by industry (FCAN). Leadership, management, TOT and assessors training have been conducted in coordination with TITI (EVENT II). Human resource development of TVET within MoEST has been started (MoEST). In the service sector, courses for supervisors and managers of hotels are conducted (NATHM). However, there is no provision for lifelong learning and career progression in the new Labor Act. There is no system for positive recognition of skills upgrading and testing within the industry. There are training wings in some big industries, but industries are reluctant to develop human resources with the fear of this leading only to salary bargain and to result in high rate of turnover of staff (FNCCI). Even so, there are a lot of efforts being made in human resource development at the individual level. However, there is no university option, to prepare highly skilled TVET professionals. There is no proper planning and no initiatives of HRD taken within institutions of central, provincial and local levels.

9.5.5 Capacity Development in the TVET Sector

The need for institutional, organization and individual capacity development for the overall development of TEVT in Nepal is outspoken (CTEVT). However, capacity development needs of TVET professionals and trainers are not systematically addressed, but initiations have been started (MoEST). Even so, there is no higher education degree to prepare TVET professionals, managers & leaders. Industry and business are interested to develop human resources, but they have reservations to release their professionals for further development (TITI). It has been realized that TITIs capacity needs to be developed so that it will be considered an institution that is easy to approach for providing human resource development. Kathmandu University has started to produce human resources in a very small number and is also not tested whether the university output will address the needs of business and industry. There is little hope that ENSSURE may come up with a viable scheme to develop HR for the tourism sector through partnership. The tourism sector needs skilled workers for both front desk and back desk services (HAN). Institutional improvement in terms of capacity is always incomplete and is receiving less attention. After the earthquake, many institutions have lost some of their capacity.

Individual trainers are trained and refreshed, but their professional development is always somewhat lacking. This is unfortunate, since rules and regulations are to be developed due to the federal structure and capacity development of provincial and local governance appears as an urgent need from the perspective of TEVT development and governance (VSDA, MoLESS). Donor support is heavily provided in all levels of capacity development such as scholarships, which are provided to individuals of vocational training trainees, TSLC, Diploma, B.Tech. Ed. and master's degree in TVET level students, study tours, observations and different exposures to the TVET professionals on an individual level. But development, competence and expertise to lead and properly manage TEVT is hard to come by. Not that opportunities are lacking; institutions are supported by providing, machines, equipment, labs, matching grants and performance grants. Organizations are supported within policy formation, developing exams, accreditation and curriculum development. Projects such as EVENT, ENSSURE, NVQF and Dakchyata are providing supports on all levels of capacity development.

9.5.6 TVET Structure under Federalism

Appropriate state level offices needed to federalize government have now been established and brought into operation. The TOR of such offices were developed and endorsed by the Council. Operation and Management (O&M) survey is in process and existing regional CTEVT offices have been merged into State level offices (NSTB/CTEVT). The state level offices were established, and the Council provided responsibility to these offices. This said, there is no progress within overall TVET restructuring. The integrated TVET Act can address the restructuring issue, but it is still in a draft form (R&I/CTEVT). The concept document for federalism in assistance with SDC is in fact developed, but the document needs to be implemented by the Government, with full ownership (NVQS/NSTB/Swisscontact). TITI programs are conducted in coordination with CTEVT provincial offices in provincial level (TITI). All training programs under MoA have been handed over to provincial government. Extension, in-service training and agriculture information are taken care of by such centers (AITC/MoA). Thirteen skills training centers under DoL were handed over to the provincial government. Three autonomous academies are developed: in Bhainsepati, Lalitpur, Butwal, Rupandehi and Itahari, Sunsari. Academy management is done by government officials and training programs are implemented by outsourcing experts and contracting training institutions (VSDA). The programs are conducted in all provinces in a proportionate manner (EVENT II). It is fair to state that the Nation is presently in a transition phase. Every authority is in process to develop policy, laws, rules and regulation at all levels from federal to Palika (SEP). CTEVT opened provincial offices, partly for restructuring existing structures or partly for expansion of TVET systems (MoEST). NATHM has plan to open and convert its programs into university level programs. Once this is done, it will open branches in other parts of country (NATHM). Federalism is a way to manage a state for its viability, security and sustainability and to promote its resources in all tiers of governments. It is also a mechanism to create space and opportunities to address issues related to identity, diversity and inequalities among people (Current Status and Challenges by USAID). However, though there are initiatives underway now in federalism, acts, laws, rules and regulations are yet to be fully developed for clear division of roles and responsibility of all levels in terms of TVET development.

9. 6. TVET Implementation Management

9.6.1 Effective Coordination Mechanism in TVET

For effective coordination mechanism in TVET to be in place, there should be timely Policy review and revisions undertaken, i.e. establishment of coordinating body, regular monitoring and supervision, coordination regulation and one-door TVET funding, but presently there is a big gap for such initiations (NSTB/CTEVT). However, some things are in place: there is effective coordination mechanism through instructor training, curriculum development, research and studies, workshops, seminars and meetings (R&I/CTEVT). But there is no systematic and institutionalized coordination mechanism in place (FNCSI). HAN is leading a sector skills committee of NSTB and is represented even at policy level of NATHM. It is a good start which needs further improvement and expansion (HAN). There is a linkage with NSTB regarding skills test, since CSSITC is a skill testing center (CSSI). Within the Ministry level programs, there is strong monitoring, supervision and coordination mechanisms even to reach to Palika level (VSDA). Coordination is effective at higher and policy levels but needs to be developed at grass-root levels (FCAN). There is effective coordination mechanism among CTEVT, NSTB, TITI, ENSSURE and Skills Training Center in relation to conducting vocational training courses (EVENT II). There is a coordinating committee at MoEST to coordinate all ministries and departments involved in TVET development, but the committee needs to be made effective (SEP). Coordination of TVET is not systematic and is on *ad hoc* basis (MoEST) and it is fair to state that there is no institutional coordination mechanism fully in place, since coordination is being done on an individual basis only (NATHM). Therefore, one can say that there is no effective coordination mechanism in TVET implementation overall. Instead, the existing system is being operated on *ad hoc* basis (FNCCI). MoEST which has the main responsibility of activating PCC and Technical Committee at inter-ministerial level in fact agrees that TVET coordination is being done on an *ad hoc* basis only. Therefore, an effective coordination mechanism should be developed with legal mandates in place and thereupon be activated accordingly.

9.6.2 Assurance of Progress of Policy Implementation

A functional regulatory body, regular monitoring and supervision and wider circulation of policy provisions would help to achieve solid progress of policy implementation (NSTB/CTEVT). In absence of such policy strategy and road map, it is difficult to measure

progress of policy implementation (R&I/CTEVT). Since knowledge of policy matters as mentioned earlier is either limited or absent, progress of TVET policy implementation is suffering (CSSI). However in contrary to the statement, EVENT Project claims that Progress of TVET policy implementation is good because more requests of training recipients increased, more TPs are entertained, and third-party monitoring and evaluation ensures the implementation of policy, voucher-based participants are informed through mobile and SMS and complaints of trainees and other stakeholders are instantly entertained (EVENT II). The policy document is very good, but the implementation part of the policy is not up to the satisfactory level (SEP). All in all, there is progress on policy implementation, but only partially. One can see that things are moving towards province and local level implementation. But the public sector cannot rely on the demand efforts from there, due to reasons of social justice to uplift of the weak segments of population in parts of the country. The amendment of the TVET Act is in the process of roll-out (MoEST). There is no linkage between NATHM and MoEST and thus, there is no information of progress of policy implementation (NATHM). All in all: In absence of a TVET road map, integrated with strategic and implementation plans and ineffectiveness of PCC and the technical committee under MoEST, it is difficult to measure the progress of TVET policy implementation.

9.6.3 Coordinated Funding and Financing for Sustainable TVET

Regarding coordinated funding and financing for sustainable TVET, there is no new system developed yet and things remain unchanged. Duplication and scattered efforts and resources in TVET still characterize the situation. (NSTB/CTEVT). No significant efforts and achievements are made to ensure coordinated funding of the system (R&I/CTEVT). Scattered and isolated efforts to improve matters can be found, but no initiatives are yet taken for coordinated funding and budgeting in TVET (NVQS/NSTB/Swisscontact). Overall, no progress can be reported in this respect (MoEST). There is no coordinated funding/budgeting (SAP/NATHM). Public financing of TVET consumes little of the total spending on education and training or of the total of government's spending overall. TVET is generally considered only a minor subset of the education system. Examples of training programs that are longer than necessary for the skills taught; underuse of physical facilities; duplication of programs in provinces; and high dropout rates lead to high total cost per employed graduate. In some cases, the trainees have no intention of entering the occupations for which they are being trained (ADB, Australian Aid). It is therefore fair to say that funding and financing in TVET is

scattered and policy intent which needs to be developed as provisioned by TVET policy 2012 with legal provision and fund flow mechanism are all in dire need to be converted into reality on the ground, on central, provincial and local levels.

10 Progress made in TVET Implementation in 2019

Information of achievements obtained in the study after the annual review conducted in 2018 has been presented in this chapter. The information of achievements of the annual review of TVET implementation by July 2019 has been presented in six different clusters of the TVET issues identified in the study report.

10.1 Equitable Access in TVET

10.1.2 Basis of TVET Institution Establishment or Skills Training Selection

Training needs assessments, research study reports, government plans and request of business and industry were some of the bases of institution establishment and selecting or prioritization of TVET programs. 9-12 technical education streams were started by MoEST in 2019. Kathmandu University started master's degree program in TVET catering for small number of students. There are programs from Window 1-Window 7 and up to Window 5, vocational skills are included with the concept of Challenge fund to share 50-80 % of the budget in training programs. The programs focus on industry-led activities to train industry employees and migrant workers by SEP, a DFID-funded project. CTEVT has provided vocational training to 42,000 people in all provinces, funded by Nepal government. EVENT provides vocational training to more than 25,000 people each year. CTEVT started Dual VET program for 100 recipients and provided training to convicts in jail in addition to its regular programs such as Diploma, TSLC and Special courses to DAG, i.e. poor and marginalized people. However; there is no geographical mapping yet for institution establishment and no initiation taken to open a university to prepare TVET qualified professionals except the recent start-up of Kathmandu University with small number of intakes in degree program.

10.1.2 Scholarship Provisions in TVET

Ten percent of trainees receive classified and intelligent scholarship in each academic program of CTEVT. CTEVT provided various vocational trainings to 42,000 people in all provinces; this year as additional fund provided through Government. CTEVT also provided vocational trainings to convicts in jail. CTEVT also started dual VET (apprenticeship) for 100 students, supported by the ENSSURE project in the fiscal year 2075-6. EVENT II provided result and voucher-based vocational trainings with approved criteria to 25,000 people this year. A total of 1,200 students of Diploma and TSLC programs received scholarship in 2019.

Skills for Employment (SEP) started its training programs, which targeted industry employees and migrant workers from this year.

10.1.3 Type of TVET Institutions in Operation

9-12 technical education stream run by MoEST started from this year. CTEVT began Dual VET for 100 students, assisted by ENSSURE project and Kathmandu University began master's degree program in TVET for a small number of TVET professionals.

10.1.4 Type of TVET programs in operation

Dual VET and master's degree to TVET professionals are the new programs, which began in 2019.

10.2 TVET Relevance

10.2.1 Current Situation of LMIS in Nepal

MoEST and CTEVT are jointly developing LMIS which is in a final stage. Tracer studies of the TVET graduates are conducted according to the plans of CTEVT each year. Employment shops were operated in some districts by FNCSI, but such efforts were not linked to the national network. Recommendations of local authority and RMA conducted by TTPS are therefore the basis of labor market information system. Research of demand and tracer study is conducted by NATHM each year through consultants. The report indicates that 85% employment is in hotel management and graduates of travel and tourism involve in self-employment. Though there are initiations of different form of LMIS, such information through these efforts is not linked to the national system.

10.2.2 Tracer Study of TVET Graduates

It has been found that a significant number of tracer studies is conducted by all TVET providers. Some of them have programs for tracer studies in their annual budget and program, but the problem is that the information received from tracer studies is not connected to national LMIS. Institution taking ownership of the information of tracer studies should be ensured and established at a national level, with legal provisions.

10.2.3 Demand Forecast

There is demand forecast at institutional level through TNA and other research efforts to develop new programs and implement these, but no concrete data are available at national level to carry out demand forecast. National Planning Commission projects the need of human resources, but its projection is not widely disseminated. CBS provides figure of the unemployed population covering a 10 years' time span, which is not effective to address the demand of skilled workers needed for the country here and now. Sakchyamta has developed demand-collection tools in 2019 by assigning its consultants applying the designed tools; this will surely help forecasting the demand of skilled workers in future.

10.2.4 Private Sector Involvement in Selecting and Prioritizing TVET Programs

Private sector (i.e. business and industry) is involved in CTEVT-managed programs in different form such as providing input for TNAs, research studies, curriculum development and skills standard development. The private sector lead sector skills committees in construction and tourism sectors. The involvement of private sector is increasing, due to the efforts of projects such as ENSSURE, TVET-PP, NVQS and SEP but their involvement in TVET programs is still not enough to ensure effective private sector involvement in selecting and prioritizing TVET programs.

10.2.5 Experiential Learning with Business and Industry

Manmohan Polytechnic, KNIT, BTS, BSET, and BTI have all been practicing apprenticeship models with business and industry. Similarly, OJT and internship programs were a prerequisite of some of the training programs in the past, but training with OJT is made mandatory in the programs supported by ENSSURE Project. Dual VET has been started by CTEVT to promote experiential learning in TVET from this year. Vocational Skills Development Academy has a plan to promote apprenticeship training courses for this year. NATHM places students in hotels within Nepal and abroad for experiential learning of BHM programs. REBAN and dairy related industries have good response for the vocational trainings of experiential learning through a partnership modality. There was one initiation to conduct trainings in partnership with REBAN by NATHM, but few trainees showed interest due to the free nature of the program and therefore, this training model has not been effective. TITI trained 40 instructors working in business and industry. However; more instructors training programmes are to be developed and training friendly facilities within business and industry have yet to be developed for massive promotion of experiential learning in TVET to take place.

10.2.6 Training Modality

In house training, OJT, internship and apprenticeship were some of the TVET training modalities in the past. Now CTEVT has added and included Dual VET as a training modality from this year.

10.2.7 Curriculum Development and Revision Process

There is a set procedure of curriculum and skills standard development, which has been adopted by CTEVT through applying DACUM technique. Now some of the CTEVT professionals have been trained to apply functional analysis technique for developing TVET curricula and skills standards. Functional analysis technique can be an alternative approach to DACUM procedure in future.

10.3. TVET Quality

10.3.1 Assurance of Quality Input/Learning in TVET

Reliable and systematic feasibility study for affiliation process, well equipped and quality infrastructure, trained instructors, demand-driven updated curricula, tests, exams and certifications and effective monitoring and supervision mechanism have all been enforced for the quality input in TVET. TITI has conducted massive professional trainings, totalling 6,000 person/week's this year alone. Instructional skills curriculum is being reviewed and pilot test will be conducted by August 2019. Training of 40 master trainers has been developed and carried out, with trainees from all seven provinces. 100 instructors of business and industry were trained. 260 people were provided TOTs in assistance with EVENT Project II in 2019. All in all, an impressive achievement.

10.3.2 Assurance of Process Input in TVET

Effective monitoring, supervision and evaluation of institutions and programs and follow-up study of graduates are the process input of quality learning of TVET programs in practice. Orientation of curriculum, use of learning media and materials, formative evaluation, supportive monitoring and supervision and experiential learning focus **are** the vital process inputs, however, such process inputs need to be systematized and regularized. As an example, monitoring and supervision six times per training cycle by third party is made mandatory to ensure the learning input in the programs implemented by EVENT II. TU conducts evaluation and there is 100% result in academic programs of NATHM. This is demonstrated by the fact that all graduates of academic programs of NATHM are employed and there is more attraction in foreign employment.

10.3.3 Assurance of Outcome of Learning in TVET

Regular tracer studies linking with links established to an effective LMIS, skills tests and certification and guaranteed employment are all indicators of solid learning outcome of TVET programs. However, such indicators are not developed and implied to measure TVET outcomes. Impact studies were conducted in some technical schools at school level, but it is still far of as a standard approach for regular implementation. In the hospitality sector, people need to be equipped with the latest knowledge and with technology for lifelong learning and skills upgrading for better opportunity. Big hotels run their training institutions to provide in-service trainings. Most of the positions in hotel management have been occupied by Nepalese workers, except in few positions of hotels, invested in by Indian businesspeople. Minimum 70-80% employment is to be ensured by the training providers in the programs implemented by EVENT II. 100% employment is there in academic courses offered by NATHM.

10.3.4 Assurance of Effective Programs

Retention of the graduates in the trained profession and employment guarantee are ways to assure the effectiveness of TVET programs. Similarly, quality training, increase of employment demands, increased flow of training seekers, better results achieved and increment in the rate of employment of graduates will assure the effectiveness of TVET programs. Matching with demands of skills gap, 620 industries were contacted for TNA in coordination with FNCCI. Sector-wise gaps were identified at micro level, such as agriculture, tourism, hospitality, construction, ICT, hydro and light manufacturing by SEP in 2019.

10.3.5 Switching TVET Programs

Some programs are at the verge of replacement such as health related TSLC: ANM, CMA. No program is virtually switched yet and no preparedness is made for switching any training programs. New programs as demanded by job market are replacing the less demanding course such as computer course is removed and completely new course: scaffolding, has been opened. Such initiations do not justify the TVET program switching.

10.4. Integration and Mobility in TVET Programs

10.4.1 Assurance of RPL in TVET

RPL pilot testing has been conducted on cook, mason and housekeeping. Provisional certificates were issued to RPL test of successful candidates. RPL guidelines were developed and migrant returnees were tested and certified. National competency development in various occupations is in process. RPL is a fully institutionalized concept with qualification level L1- L8. The manual of RPL is developed. Necessary human resources for RPL are trained. However, a massive awareness and approach to evaluate RPL and establishment of RPL desk have yet to be developed.

10.4.2 Functioning of NVQF in TVET

NVQF and NQF have been submitted to Cabinet through MoEST for endorsement. The framework comprises of L1-L8 including RPL and life-long learning. Mandated authority will take responsibility to involve both public and private sectors in the development of RPL, once the framework will be endorsed.

10.4.3 Skill Standard Development/Revision Process

Experts are involved in DACUM processes, with representatives from both public and private sectors. Sector Skills Committee members are involved in development and revision processes. Board is represented 50-50% from public and private sectors to endorse the skills standards. However; the system of occupational standard development and revision has remained unchanged since last year.

10.4.4 Credit Transfer in TVET Programs

There are some practices of credit transfer through incorporating such in curriculum and endorsing such within its condition. There is no practice yet, to transfer credit in TVET programs.

10.4.5 Nepalese Classification of Occupations

No new interventions have been made this year in the field of Nepalese classification of Occupations. This is regrettable, as there are problems in identification of occupations, which affects life-long learning, skills upgrading and demand forecasts.

10.5 TVET Policy Implementation

10.5.1 Situation of TVET Strategy and Road Map

There was some initiation to develop TVET strategies and road map, developed through support by ADB, but this did not appear in circulation. A new TVET Act is developed and is in a draft form. TVET integrated Act, capturing responsibility of all level (Palika to Federal) is in the drafting process. No policy strategy and road map after 2018 has been developed. No authority is responsible and has ownership to implement the TVET policy. PCC and Technical Committee under MoEST are not active.

10.5.2 TVET Implementation Plan

TVET implementation guidelines are developed. Guidelines for delivering vocational courses are also developed. The TVET implementation plan was made an integral part of the TVET Road Map document. Due to this delay, people began to forget the events conducted through 60 policy dialogue workshops, assisted by SKILLS Project of UNDP in 2018, due not least to the absence of an effective policy dissemination system.

10.5.3 Major Initiatives of TVET Policy Implementation

There are remarkable achievements to be recorded in the field of TVET expansion. There were five TVET institutions in 1980, but there are presently more than 1,000 formal TVET institutions and 1,081 TVET providers are offering demand based vocational training programs. To enhance quality and relevance, demand driven curricula are developed, effective monitoring and supervision is done, certification is exercised, and various types of scholarships are provided for access and inclusion. NVQF has been developed for inclusion. However; there is no significant achievement made on the issue of policy intent of sustainable and coordinated funding.

10.5.4 Human Resource Development in TVET

By now, 6,198 Skills Test Assessors and 456 Skills Test Managers were trained, and certified, further education of B. Tech. Ed. has been provided to personnel, and 7 staffs have been undergoing master's degree in TVET. Numerous professional trainings in and abroad are being provided. Professional visit, seminars, workshops and meetings are organized and conducted. SDP scholarship for TVET personnel has been provided for further education. Capacity building efforts for enriching TVET professional both in and outside the country are made effective. Currently, there is no planned system in HRD in all institutions - it is just a patchwork. Selection process for HRD and even the trained ones are frequently transferred into irrelevant positions. 6,000 person/week's trainings on various professional levels were conducted, 40 master trainers were trained in all provinces, 100 industry-based instructor, and 260 people were trained on occupational TOTS. Human resource development of TVET within the MoEST has been started. So, all in all, these results are impressive.

10.5.5 Capacity Development in TVET

There are three pillars in the hospitality sector, such as quality infrastructure, system management and trained human resources. Now mostly Indian workers have been replaced by Nepalese workers. However, continuous improvement is required. Hotel management sector is suffering from high turnover of staff. There is no provision of lifelong learning and career progression in the new Labor Act. There is no system for positive recognition of skills upgrading and testing within the industry. There are training wings in some big industries, but industries are reluctant to develop human resources with the fear of opening for salary bargain and increasing the already high rate of turnover even further. Basic level skilled workers are not available as demanded by industry. Capacity development needs of TVET professionals are not assessed properly and no plan to address such needs is available. Leadership, management, TOTs and Assessors training have been conducted in coordination with TITI. There are scholarships for TVET professionals for further education such as B.Tech. Ed. and Master' degree in TVET. MoEST has started to develop TVET professionals by including in annual programs and budget to address the needs of qualified instructors in 9-12 technical education stream. Industries have shown interest to train their personnel as TVET instructors. TITI trained 100 industry instructors during this year.

10.5.6 TVET Structure under Federalism

The state level offices have been established and brought into operation. The TOR of state Offices were developed and endorsed by the Council. Operation and Management (O&M) survey is in the process and existing regional offices were merged into State level offices. The concept document of federalism in assistance with SDC is developed, but the developed document should be implemented by the Government, with full ownership. All training programs under MoA have been handed over to provincial government. Extension, in service training and agriculture information are taken care of at center level. Thirteen skills training centers under DoL were handed over to the province government of the respective province. Three autonomous Vocational Skills Development Academies under MoLESS are developed in Bhainsepati, Lalitpur, Butwal, Rupandehi and Itahari, Sunsari. Management of such academies is done by government officials and training programs are conducted by outsourcing experts and contracting institutions. The nation is under a huge transition phase. Every authority is in the process to develop policy, laws, rules and regulations at all levels, from federal level to Palika.

10. 6. TVET Implementation Management

10.6.1 Effective Coordination Mechanism in TVET

For effective coordination mechanism in TVET, there should be timely Policy Review and revision, establishment of a coordinating body, regular monitoring and supervision, coordination regulation and one-door TVET funding, but a big gap is there for such initiations. There is Policy Coordinating Committee at MOEST to coordinate all Ministries and Departments involved in TVET developments, but the Committee needs to be made effective with legal provisions.

10.6.2 Assurance of Progress of Policy Implementation

A functional regulatory body, regular monitoring and supervision and wider circulation of policy provisions can help achieve progress of policy implementation but in absence of a robust policy strategy and road map, it is difficult to measure the progress of policy implementation.

10.6.3 Coordinated Budgeting/ Funding in TVET

There is no new system developed yet regarding coordinated budgeting and funding mechanism and things remain basically unchanged. There are still duplicating and scattered efforts and resources in TVET development. Therefore, there is no coordinated funding and budgeting mechanism for effective and sustainable achievement of TVET development.

11 Conclusion

Under the headings of equity, access and inclusion in TVET programs, matters are certainly seeing improved conditions. However, efforts made within these fields are not systematized and carried through in a well-coordinated manner. There is no effective LMI system and many skills development programs are running without reliable data of human resource requirements (demand-side data). Most development partners investing money in skills development are not concerned about labor market information and development of human resources to lead, manage, deliver instruction, and provide professional supports in TVET. Training programs are selected through the information of TNA reports with limited scope and through databases, which do not reflect the national needs. Very few institutions conduct tracer studies, but the information of such studies are not linked to the LMIS and are not being used systematically for improving training programs including training delivery. Nepalese classification of occupation exists without inputs from businesses and industries and very few of them who are involved in TVET know about these systems. The classification document itself needs further refinement with employers' (both public and private) proactive involvement, approval and ownership. There are national formats of occupational standards, but these are poorly developed and have no connection with competence, skills and training standards. Nor the process of developing occupational standards is known to employer's community and other beneficiaries. Curricula and assessment processes are disconnected with these occupational standards.

Quality of TVET programs is still a big issue. A lot of efforts are made to improve the quality of TVET graduates, however; quality assurance is one of the weak aspects of the TVET sub-sector in Nepal. Almost all aspects of quality assurance are present, but only in fragmented manner. An integrated system of quality assurance in TVET is therefore required.

There is a curriculum development system; however, there are a lot of lapses in its implementation. Recognizing Prior Learning (RPL) is there in practice, but recognition of qualifications is still an issue calling for further efforts. NVQS which is being developed with support of SDC may resolve the issue of RPL. Credit transfer system in TVET is still not in practice. NVQF is expected to provide big room for credit transfer and credit banking in future. Private sector is still reluctant to participate in human resource development needed for their business and industry, because of their fear of high salary bargain and high rate of turnover, as a result. They are not ready to invest in TVET at this point of time. They are in demand of favorable Labor Act and laws. They are raising voice of quality of TVET outputs and are

believing that they will be involved further in TVET through investment requirements in the future. There is a severe capacity gap in the TVET sector. Capacity development at all levels such as individual, institutional, and organizational have needed further enhancement.

Business and industry still find TVET graduates not prepared according to their needs. Private sector is involved in TVET on an individual basis, but do not take ownership of the decision made even despite their representation. Business and industry are involved in skills sector for the development process of occupational standards, participation in assessment of performance and due to their willingness to develop skilled workforce in a partnership modality. Institutional involvements of private sector (business and industries) in TVET development has created space for ownership of decisions and engagement in the human resource development processes. Dual VET and apprenticeship models are now openly discussed and implemented to some extent. Wider efforts in this direction need to be done. Industry should have their own training center to develop TVET instructors, but industries maintain that they cannot release their workers for training since they have a limited number of experts for such purposes.

The TVET Policy 2012 is disseminated at central level, but it remains quite unknown at the grassroots level. Even divisional levels of different ministries were found mostly ignorant about TVET policy. A lot of efforts are still needed for effective implementation of the policy, despite of the fact that policy dialogues conducted by UNDP in support of SKILLS project has been carried out in more than 60 locations. TVET policy is being implemented without a systematic implementation plan and proper monitoring mechanisms. Now, due to the federalism in the country, policy revision is required along with the revision of the TVET Act, with clear functional division of all levels from center to Palika. Policy-related strategies and road map with strategic and implementation plans were submitted to National Planning Commission, but it has not been circulated to the stakeholders of all levels. A lot of discussions are being undertaken for addressing the current need of provincial and local level TVET set ups, but few of them have led to actual decentralization plans to set up the offices in all provinces with all authorities and responsibilities in place. This said, some of the Ministries have in fact handed over their training centers to the provincial governments.

12. Suggestions/Recommendations for future improvement

- Selecting and prioritizing TVET programs should be based on TNAs and research studies in consultation with business and industries. Systematic demand-based program selection and implementation should be guided by LMI system.
- Fair and transparent system of registering and recognizing new institutions should be in place.
- The paradigm shift from institution-based training to industry led training should be promoted.
- A national body should develop standards, requirements and procedures and provincial government should implement such.
- TVET programs should be prioritized, based on demand-information, done in consultation with sector employers and local governments.
- TVET scholarships distribution should be governed by well-versed guidelines and criteria in order to reach to the needy people.
- Apprenticeship model should have emphasis and should be expanded in a systematic manner bridging institution with business and industry.
- The TVET programs of all levels from livelihood to Bachelor level should address the changing demands of labour market in improved ways.
- NPC or CTEVT should have mainframe to collect both supply and demand information, in order to develop labour market information system (LMIS) in improved ways.
- Coordination among Ministries, CTEVT, employer organizations and CBS should be made effective through legal mandate of PCC.
- Employment Information and Support Centre under the Department of Labour should be developed and strengthened.
- Data flow from VDC/Municipalities, province, and center should be managed with the help of private sector (business and industries).
- Comprehensive survey of employed and semi-employed and unemployed population should be conducted and periodically fed into LMIS.
- Training programs should be designed, based on the demand information generated on a regular basis.

-
- Unemployed population should be addressed with concrete intervention through various types and levels of TVET programs, organizing TVET programs with various qualifications, from post literacy all the way to secondary education level.
 - Conducting appropriate tracer studies should be made mandatory in all TVET institutions.
 - TVET institutions should be capacitated to conduct tracer studies, utilizing a procedural manual provided by the mandated entity.
 - Training providers need to be trained and their capacity should be developed to regularize tracer studies with proper method.
 - Resources should be allocated each year to carry out tracer follow-up studies on a regular basis.
 - The information received from tracer studies or feedback provided by employers should be linked to LMIS and made the basis of program selection, curriculum revision and switching training programs to newly emerged areas of employment.
 - In every three years, graduates' follow-up studies should be carried out at provincial and national level by making such mandatory.
 - Information of tracer studies should be institutionalized for further development of TVET sector, creating a separate entity for it.
 - Follow-up studies every three years should be conducted by each institution, to assess effectiveness and relevance of programs offered and necessary improvements should be made, based on the study outcome.
 - Frequent dialogues should be enhanced between employers and TVET providers for the involvement of business and industry backed up by legal provisions.
 - Policy support to offer incentives for skills training programs including work-based learning in partnership with business and industry should be developed.
 - Joint monitoring of business and industry mechanism and a regulating authority should be in place for TVET implementation.
 - Gap of needs of private sector involvement in TVET implementation should be systematically identified and improved accordingly.
 - CTEVT should have capability to develop partnership with business and industry. CTEVT systems should be assertive to convince and inspire business and industry for promoting work-based learning through a partnership modality.
 - The involvement of business and industry in all essential processes from demand-collection to evaluation should be given a leading role to play in TVET development

-
- Experiential learning for TVET trainees should be an integral part of TVET curricula to experience the real work situation within the world of work.
 - Apprenticeship Act in consultation with business and industry should be developed with the provision to provide workspace, machine/equipment and 50% salary by industry and 50% by government or government-related projects to TVET trainees under WBL.
 - Training facilities and trained industrial experienced instructors of participating business and industries in work-based learning should be supported.
 - The curricula for experiential learning should be developed, in consultation with skills sector councils.
 - TVET policy including acts and regulation should address favourable environments, motivating business and industry by offering benefits to them to develop ownership in TVET programs.
 - Experiential learning is in practice, but only on an *ad hoc* basis, which needs to be systematically regulated through rules and laws.
 - Effective work-based learning models should be studied and replicated throughout the country.
 - Emphasis should be given to institutional practice of OJT, apprenticeship or work-based opportunity by building partnership with relevant business and industries, through partnership with professional associations, municipalities, and boards.
 - Migration to foreign employment is a critical issue, but well-developed apprenticeship approach can address the issue of migration and lead to better retention of workers in industry for longer periods.
 - Sectors skills committee should be made effective, with legal mandate activating heavy institutional involvement of employers by utilizing information generated through LMIS.
 - More emphasis should be given to include work-based learning opportunities as an integral part of skills development programs.
 - More input in functional analysis approach to TVET curriculum development is needed in order to make curriculum developers capable and confident in utilizing a functional analysis approach.
 - Theory/practical ratio provisioned by curricula should strictly be translated into classrooms/ workshops /labs, which should be ensured through regular monitoring.
 - Validation of curricula should be done, based on the outcome of the training graduates.

-
- Curriculum development expertise both at the central level and provincial level should be developed.
 - Established practice should be revived to design and revise the competency based TVET curricula by all TVET providers.
 - Quality assurance system should be developed and implemented in an integrated manner and through approved quality standards. Comprehensive quality assurance manual should be developed to facilitate TVET institutions to engage in continuous improvement through self- assessment procedures.
 - Capacity development support and training to personnel of TVET should be provided to use relevant tools and instruments for the assessment of quality.
 - Program evaluation including accreditation system in TVET should be made regular and effective as a means of quality assurance.
 - Competency assessment system should be focused to assess curricular outcomes through a reliable system of assessing learners' outcomes.
 - Accreditation system at the province and TVET institutional level should be designed and implemented to ensure input and process quality.
 - Follow-up study and tracer study should be carried out at least in every three years to ensure outcome quality.
 - Training institutions should make necessary arrangement to maximize training quality and relevance in order to achieve high level of graduates' employment and employers' satisfaction.
 - There should be an act and regulation, which promotes partnerships with business and industry and motivate them to participate in work-based learning schemes. Provision for incentive for those businesses and industries who participate in providing work-based learning opportunities to TVET students should be made available.
 - Teacher licensing should be enforced and theory-practical delivery in training should be made effective in order to promote quality.
 - The parameters such as quality infrastructure, trained instructors with relevant work experience, financial status of the institution and connections with relevant employers should be used to monitor periodically the quality of TVET institutions and programs.
 - Assessment in line with NVQF should be conducted by an independent body.
 - Retention of skilled workers in the trained occupations in business and industry is a big issue, which should be well addressed. Therefore, legalized regular tracer studies linking

information to LMIS should be enforced for the effective achievement of the various TVET programs.

- Economic and social life should be improved through TVET programs; impact studies must be conducted at least in every 5-10 years to ensure positive impact in people's life through TVET.
- Wider recognition and horizontal and vertical mobility of RPL should be ensured through NVQF, empowered with legal mandate.
- Commodities associations together with government agencies should be convinced for wider recognition of RPL.
- Legal provision should be made in order to institutionalize NVQA as a national authority for effective RPL and integrating vocational qualifications.
- The recently developed and pilot tested RPL should be enforced massively by creating a conducive environment to developing necessary infrastructure and trained human resources.
- The developed NVQF needs to be approved by the Government in time and implemented as soon as possible.
- Stakeholders and beneficiaries should be educated or informed about OS for their wider acceptance.
- Legal provision and guidelines are to be provisioned for the effective involvement of private sector in OS development.
- The development and endorsement process of OS should be institutionalized, with active initiation of CTEVT and substantial participation of business and industry.
- Necessary action to implement the NVQF still awaiting endorsement and its legal base should be taken.
- There should be skills sector committees with legal provisions for all sectors and the main responsibility should be given to the committees for the entire process of occupational standard development and revision.
- There should be established a credit transfer and credit accumulation system at all levels of training and education programs.
- A clear and precise credit transfer system needs to be developed, matching with the newly developed NVQF.
- NVQF/ NQF which facilitates horizontal and vertical mobility and the credit transfer system should receive legal mandate.

-
- A system of earning credit for the informal and non-formal learning should be in place once the NVQA and NVQS is in operation.
 - Sector committees should be activated through employers' involvement in collecting information on growing skills demands and revise NSCO in line with the realities of the labor market.
 - Capacity development of employers' community in classifying and analysing occupations and collection of information on labor market demands should be established, in collaboration among CTEVT, CBS and business and industry (employers' community) should modify the standards of NSCO in line with the reality of the labor market. Nepalese classification of occupation should be further standardized by involving business and industry throughout the entire process.
 - The comprehensive TVET implementation plan with legal status should be developed and circulated among all TVET providers and stakeholders.
 - TVET policy should include provision for horizontal and vertical mobility, integrating various modes of learning and pathways including clear connection between general education and TVET within the framework of NVQ.
 - A national TVET road map and implementation plan should be developed and implemented in the changed context of federalisation.
 - Provincial Council for TVET planning, expansion and quality assurance in the province level should be developed under social development ministry auspices.
 - Emphasis should be given to employers' involvement in TVET policy implementation processes.
 - PCC with the help of CTEVT should be kept active to improve TVET coordination and quality for avoiding duplication and mismatch of TVET programs.
 - A TEVT policy implementation plan should be prepared and circulated through an authorized channel and reach to the bottom of all TVET implementing agencies.
 - Mobility between TVET and general education should be made possible by utilizing the recently developed NVQF. Moreover, non-formal and informal learning should be assessed, recognized and validated to earn national vocational qualification within the NVQ framework.
 - Attempts are being made to develop TVET HRD but an HRD plan should be prepared to produce TVET professionals massively in order to implement TVET policy effectively.
 - Policy dialogue workshops conducted in assistance with UNDP last year is now gradually growing dim and an effort to keep this learning needs to be made.

-
- Policy coordination committee should be made active with legal provision in place. Rules, regulations and acts should be formulated with clear functional division and funding provision within the framework of federalism.
 - National skills development fund should be created with legal foundation.
 - Based on the report of the High-Level Education Commission, the TVET policy must be revised, to address new constitutionally specified authorities of central, provincial and local governments.
 - Networking and collaboration should be established for information-sharing and identification of needs of HRD of business and industry.
 - TITI should build partnership with both business and industry and providers for developing trainers with actual industrial experience.
 - Donor support in HRD should be institutionalized rather than them supporting on a project basis.
 - Human resource development within the system is already taking place, but it should be planned, and coordinated among TVET implementers and implemented based on HRD plan.
 - A comprehensive national HRD plan should be developed at all levels from center to Palika.
 - Government of Nepal and Development partners supporting TVET should support Universities to run Bachelor and master's degrees in occupational education as per need.
 - Organizational capacity of training institutions should be enhanced to produce quality human resources capable of delivering quality skills training and prepare skills workers, so that these are acceptable to business and industry.
 - Capacity of TITI should be enhanced to prepare quality instructors and TVET professionals capable of planning, delivering and evaluating trainings to prepare skilled human resources.
 - There should be a strong mechanism to share success stories regarding increase in productivity as a result of trained, upskilling, and qualified human resources in business and industry. Such system should be operated from a platform created by renowned and respected researchers and scholars.
 - Capacity of provincial level should be enhanced to make them capable to offer capacity development services to TVET professionals and institutions.
 - Experiential learning for TVET trainees should be the integral part of TVET curricula to experience the real work situation within the world of work.

-
- Apprenticeship Act in consultation with business and industry should be developed with the provision to provide workspace, machine/equipment and 50% salary by industry and 50% by Government or government-related projects to TVET trainees under WBL.
 - Training facilities and trained industrial experienced instructors of participating business and industries in work-based learning should be supported.
 - The curricula for experiential learning should be developed in consultation with skills sector councils.
 - TVET policy including Acts and regulation should address favourable environments, motivating business and industry by offering benefits to them to create ownership in TVET programs.
 - Experiential learning is in practice, but is on an *ad hoc* basis, which needs to be systematically regulated through rules and laws.
 - Effective work-based learning models should be studied and replicated throughout the country.
 - Emphasis should be given on institutional practices, supplemented by OJT, apprenticeship or work-based opportunity by building partnership with relevant business and industries, and in partnership with professional associations, municipalities, and boards,
 - Migration to foreign employment is a critical issue, but well-developed apprenticeship approach can address the issue of migration and retaining workers in industry for longer periods of time.
 - PCC with legal provisions at MoEST should be made active and functional for effective coordination of all TVET sector matters.
 - Government should be proactive in formulation of policy, laws, rules and regulation for furthering all TVET developments.
 - Umbrella policy though strong decision with one-door system for training programs and budget should be developed by the Government.
 - Resource utilization should be made effective through regular monitoring and supervision.
 - A system of accountability assessment of TVET institutions and providers should be endorsed. Based on the assessment results, funding decisions should be made by the mandated authority for financing.
 - Wider policy dissemination efforts are yet to be done, activating PCC and Technical Committee

-
- Provincial skill development fund should be established, and flow of funds should be ensured from center to Palika level.
 - Concrete initiatives should be taken for coordinated funding mechanism as envisioned by the policy intent.
 - There should be the legal provision for the creation of TVET fund with an appropriate funds flow mechanism in all tiers from central, provincial to local governments to ensure the sustainable financing of TVET.
 - The government budget and donor's contribution and training levy or payroll levy should be collected by these funds. Such funds should be managed at all levels for proper functioning.
 - The achievements of the projects which is the outcome of pilot tests should be institutionalized and up-scaling and replicating mechanism should be developed through coordinated and sustainable financing.
 - Industry and business should be convinced to pay levy in return, they will get quality skilled workers through training support.

List of References

Ministry of Education (Jan. 2018). National TVET strategy, 2018-2023 (Draft for discussion).

Ministry of Education (Dec. 2017). Comprehensive TVET Annual Report. Kathmandu: Author

Ministry of Education (2012). Technical and Vocational Education and Training Policy 2012. Kathmandu: Author

Sharma, T. N.; Subedi, B. & Sharma, S. (Dec. 2017). THE FINAL EVALUATION OF SUPPORT TO KNOWLEDGE AND LIFELONG LEARNING SKILLS (SKILLS) PROGRAMME (unpublished report). Singhadurbar Kathmandu: Ministry of Education.

TVET-PP Project (July 2017). Baseline Report on the Current Situation of Technical Vocational Education and Training in Nepal (an unpublished report). Kathmandu: Author

SKILLS Project (Dec. 2016). Annual Progress Report. Kathmandu: Author

USAID (June 2019). Federalism in Nepal: Current Status and Challenges, Background of Federal Learning Summit-2019

ADB, Australian Aid (Jan. 2019) INNOVATIVE STRATEGIES IN Technical and Vocational Education and Training for Accelerated Human Resource Development in South Asia.