

## **Annual Review (2020) of the Technical Vocational Education and Training (TVET) in Nepal**

**or**

## **(Review of the Current Situation and Progress Made in TVET with Respect to Policy Issues identified in the Dakchyata Baseline Study 2019)**

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On behalf of, Review Team Leader

Professor Tanka Nath Sharma Timilsina, PhD,

### List of Abbreviations

<b>ACC</b>	Accreditation
<b>ADB</b>	Asian Development Bank
<b>AITC</b>	Agriculture Information and Training Center
<b>CBS</b>	Central Bureau of statistics
<b>CDED</b>	Curriculum Development and Equivalency Division (CTEVT)
<b>CEHRD</b>	Center for Education and Human Resource Development
<b>CERID</b>	Center for Educational Information Development
<b>CSSIPC</b>	Cottage and Small-Scale Industry Promotion Center
<b>CTEVT</b>	Council for Technical Education and Vocational Training
<b>DACUM</b>	Develop a Curriculum
<b>DCSI</b>	Department of Cottage and Small Industries
<b>EC</b>	European Commission
<b>ECO</b>	Examination Controller Office
<b>ELMS</b>	Employer Led Management Service
<b>EU</b>	European Union
<b>FCAN</b>	Federation of Contractors' Association Nepal
<b>FNCCI</b>	Federation of Nepalese Chamber of Commerce and Industries
<b>FNCSI</b>	Federation of Nepalese Chamber of Small Industries
<b>HAN</b>	Hotel Association Nepal
<b>HR</b>	Human Resources
<b>HRD</b>	Human Resource Development
<b>ILO</b>	International Labor Organization
<b>IOSS</b>	Industrial Occupational Skills Standard
<b>KII</b>	Key Informant's Interview
<b>LMI</b>	Labor Market Information
<b>LMIS</b>	Labor Market Information System
<b>MIS</b>	Management Information System
<b>MoA</b>	Ministry of Agriculture
<b>MoEST</b>	Ministry of Education, Science and Technology
<b>MoLESS</b>	Ministry of Labor, Employment and Social Security
<b>NATHM</b>	National Academy of Tourism and Hotel Management
<b>NPC</b>	National Planning Commission
<b>NOSS</b>	National Occupational Skills Standard
<b>NSCO</b>	Nepali Standard Classification of Occupation
<b>NSTB</b>	National Skill Testing Board
<b>NVQ</b>	National Vocational Qualification
<b>NVQF</b>	National Vocational Qualification Framework
<b>NVQS</b>	National Vocational Qualification System
<b>OJT</b>	On the Job Training
<b>OS</b>	Occupational Standard
<b>PCC</b>	Policy Coordination Committee
<b>PSU</b>	Policy Support Unit
<b>RMA</b>	Rapid Market Assessment
<b>RPL</b>	Recognition of Prior Learning
<b>SC</b>	Steering Committee

<b>SDC</b>	Swiss Development Cooperation
<b>SEE</b>	Secondary Education Examination
<b>TC</b>	Technical Committee
<b>TD</b>	Training Division
<b>TITI</b>	Training Institute for Technical Instruction
<b>TNA</b>	Training Needs Assessment
<b>TSP</b>	Training Service Providers
<b>TVET</b>	Technical Education and Vocational Training
<b>TVET</b>	Technical Vocational Education and Training
<b>TVET TMIS</b>	Technical Education and Vocational Training Management Information System
<b>TVET-PP</b>	Technical Education and vocational Training Practical Partnership
<b>UNDP</b>	United Nations Development Program
<b>VSDA</b>	Vocational Skills Development Academy
<b>WBL</b>	Work Based Learning

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## Executive Summary

The Dakchyata TVET Practical Partnership Project (hence: Dakchyata) is an EU-financed project, managed by British Council, which has come into existence in 2017 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 programme. This assignment is part of the result 3 of the project to support the M&E panel providing information on TVET reform progress with respect to the issues identified by the baseline information documented in the initial situational analysis report prepared by Dakchyata. It was conducted in the beginning of 2017 as a desk review, followed by field based studies in 2018 and 2019 and the information of baseline information of 2019 has been reviewed in 2020 and presented as the current situation of TVET implementation in Nepal.

A team of three consultants as deployed by Dakchyata project carried out the annual review of 2020 describing TVET implementation, progress made and reform needed as a continuum of the studies conducted in 2017, 2018 and 2019. By applying qualitative methods, key informants were interviewed and candid information retrieved from them. Information of key informants and secondary information from document review were also analyzed and presented in seven sequential clusters in this report. Cluster-wise information is summarized as follows:

There have been remarkable achievements in equitable access and expansion of TVET programs in 2020. There are more than 1557 formal and 1100 non-formal training institutions throughout the country. The basis of institution establishment and training selection has been made with the information derived from rapid market assessments, training needs assessment, labor market studies and tracer and follow up studies. The establishment of technical education stream in 484 government community schools through Nepal Government plan has increased access of Nepali youths in TVET. CTVET has increased to 72743 intake capacity in formal TVET programs and provided non-formal vocational training to 42,000 people in all provinces funded by Nepal government. EVENT II Project provided vocational training to more than 25,000 people this year. CTVET started Dual VET program for 100 recipients and now they are providing apprenticeship training to 500 people. In addition to regular formal courses, CTVET offers special scholarship programs to DAG, i.e. poor and marginalized people in formal programs. Similarly, VSDTA, NATHM and CSSIPC also offer vocational courses to thousands of needy people free of cost. PMP has planned to train 59,500 ultra-poor unemployed people to ensure minimum employment. CTEVT constituent institutions, CTEVT-affiliated institutions (formal and non-formal), CTEVT supported technical education at community schools, MoEST run 9-12 technical education as a separate stream at community schools, TVET institutions in partnership with Palikas are another type of institutions in operation. There are the programs of different nature, such as formal, non-formal and even

programs related to livelihood skills. Technical Institute of Technical Instruction under CTEVT offers Instructor training. National Skill Testing Board and its NVQ project is working on the recognizing prior learning within the framework of National qualifications (NQF) and carry out skills assessment and certification to successful candidates.

In order to increase relevance in TVET, information portals are in operation to promote employment opportunities under the jurisdiction of Provincial Government. MoLESS has planned to operate Employment Information Service Centers at Palika level. MoEST and CTEVT have LMI and TMI systems, but the systems need to be consolidated and further developed. There is ELMS project supported by Dakchyata led by five professional private sector employer organizations (FNCCI, CNI, FNCSI, FCAN and HAN), which are working to develop LMI system (particularly focusing onto demand-side information, to supplement the supply-side information already generated by CTEVT and others). Every entity offering vocational training programs have realized the significance of tracer studies. There are plans in some of the institutions for conducting tracer studies, but these have not been executed due to the effects of COVID 19. Some institutions conduct TNAs and RMAs to identify the training needs. National Planning Commission is supposed to project the need of human resources. CBS does forecasts every ten years during population census, though the data are only of unemployed people. Dakchyata has supported Sakchyamta in the development of Occupational Demand Tools (ODT) in 2019, which has been piloted in some occupations in 3 sectors in 2020. The support from Dakchyata also included operational manual to apply ODT in the field. Also, the ELMS project supported by Dakchyata can work further with this tool in the future. There is also a vision document prepared by FNCCI to create 400,000 employment opportunities each year.

Evidence revealed that there has been increasing involvement of the private sector in TVET developments, particularly on policy level of all entities such as representation in the steering committee of MoEST, NATHM Board, NSTB sector committees and Board, CTEVT curriculum Board, TITI Board, VSDTA curriculum Board and Boards of other vocational training offering institutions. Experts are being involved in curriculum and national competency development. Private sector has a pertinent role in the Dakchyata supported CTEVT schools where the ELMS project is being implemented by business and industries. Concerning employers' involvement and partnership in skills development, polytechnic institutions of engineering sector have been practicing apprenticeship models with Business and Industry. Similarly, TITI provides skills upgrading training to instructors together with business and industries. In-house training, On-the-Job training, internship and apprenticeship are some of the TVET on the job learning modalities. Similarly, outreach, mobile and satellite training modalities are also in practice taking place with the help of the employers.

The quality issue is very important in delivering TVET programs. Effective monitoring, supervision and evaluation of institutions and programs which assess the process and input quality of TVET programs are in place. Orientation of curriculum, use of learning media and materials, formative evaluation, supportive monitoring and supervision and experiential learning are the vital process input for quality assurance. However, such process input needs to be systematized and regularized. 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 applied to measure TVET outcomes. Impact study was conducted in some technical schools at school level in the past but is not continued. In the hospitality sector, people need to be equipped with the latest knowledge and technology through lifelong learning and skills upgrading for better opportunity. A systematic approach in such activities is needed. Centralized examination and skills testing and certification are the usual means of ensuring output quality.

In terms of inclusion issue, there are not many initiatives for mobility in TVET programs. However, RPL pilot test has been conducted along with developed guidelines and trained assessors. The wing within TVET for RPL has been set up. Information of 30,000 returning migrant workers (**CTEVT and NVQS Project**) has been collected. Individual portfolio of returning migrant workers is being prepared. National Occupational Skills Standards (NOSS) development in various occupations is in progress. RPL is a fully institutionalized concept with qualification level L1- L8 of the National Qualification Framework (NQF), which has been approved by the Government in the year 2020. There is a plan to conduct RPL for 5,000 people this year, based on NVQF.

Sector Skills Committee members from business and industry are involved in the development of national occupational skills standards and revision processes. NSTB Board is represented 50-50% from public and private sectors to endorse the skills standards. NSTB has certified more than 16771 candidates, who succeeded in skills tests during the last three years. There are 299 national occupational skills standards in different occupations at different levels but in absence of effective NCOS there are problems in identification of occupations which affects life-long learning, skills upgrading and demand forecasting. However, the ELMS project is working to develop National Standard of Occupational classification at least 10 occupations in each of the three focal sectors of Dakchyata, namely agriculture, construction and tourism.

New education policy and National Curriculum Framework which is being implemented in 2021 have emphasized including TVET in the school system as a means of increasing access and equity in TVET. In order to translate policy into action, a new TVET Act is being developed. TVET implementation guidelines and guidelines for delivering vocational courses are being developed. Now there is the CTEVT

strategic plan of 2020-24 in a report form. There is a 10-year joint strategic plan for 6 TVET offering ministries. Human resource development is getting priority.

By now, 6,698 Skills Test Assessors and 456 Skills Test Managers were trained and certified, further education of B. Tech. Ed. has been provided to TVET personnel, and 7 staffs have completed Master's Degree in TVET. Numerous professional training programmes in and abroad is provided to TVET professionals. 6,615 person/week's trainings on various professional levels were conducted, through which 1400 individuals got occupational TOTS. Similarly, human resource development of TVET within the MoEST has been projected. Capacity development of all individuals, institutions and organizations is being carried out. Individuals are groomed through TOTS, seminars, exposure visits, professional training and further studies. Institutions are supported by equipping labs and workshops, additional infrastructure and e-learning facilities. Three polytechnic institutions are being developed as Center of Excellence, one in each sector of agriculture, construction and tourism. There are seven model polytechnic institutions being developed, at least one in each Province. Capacity at the organization level is being developed through a new ACT in TVET followed by respective regulations. Similarly, the report of CTEVT restructuring has been prepared and CTEVT is waiting for legal provisions to implement the newly developed structure. Due to the absence of the new TVET Act, restructuring is not being translated into action. Legal provisions are being made for autonomous NVQA.

Federalism and its effective structure is one of the pertinent issues to be addressed as realized by this study. The province level offices of CTEVT are in operation as a part of central CTEVT, TITI and NSTB have also opened up their units at the provincial level. A TVET independent body with vertical coordination at the provincial level is realized as necessary. MoEST has established Technical Vocational Education and Training (TVET) Division within the MoEST. Every sector ministry is in the process to develop policy, laws, rules and regulations at all levels from federal to Palika. However, COVID 19 Pandemic caused delay in accomplishment of the plans and programs. For effective coordination mechanism in TVET, there is a need of timely policy review and revision, establishment of a coordinating body, regular monitoring and supervision, coordination and one door TVET funding at all three levels of government (federal, provincial and local).

COVID 19 is found as a new issue in this TVET implementation review study of 2020. The pandemic has left surmounting effects in every sector. Entrance examinations, regular examinations and face-to-face instruction could not be conducted as they used to be. Alternative approaches were applied. Every program and sector has faced hard times due to pandemic. Only theoretical classes were conducted through online media. The nominal participation of students raised the question of effectiveness of online classes. Many students could not join the classes because of effective online service. COVID 19 caused delay in implementation of the academic calendar. Academic batches have been overlapped which

demanded more facilities and human resources. Health related safety raised additional cost in instruction. Huge number of returning migrants was rescued by special flights. The tourism industry is badly affected. More than 40% industries and companies remained closed almost for six months. New monetary policy gave some light of hope and slowly industries began to resume their operation. There was no mobility of workers, no supply of raw materials, no production and no distribution of the products in 2020. Many essential areas have been pushed back for one year. Preparatory works at the construction sites were closed, which caused 65,000 million rupees loss and there is 341, 000 million rupees loan to be repaid in the construction industry.

The pandemic has also created some opportunities. Working procedures for online learning as alternative approach to instruction has been developed. Rapport building with students after a long gap is being done through online and offline classes. It has been realized that work-based learning is useful in a pandemic situation because workers remained within the business and industry. Courses for virtual learning have been designed. Instructors became habituated to use the new technology; participants got new excitement and became enthusiastic using technology in virtual classes. E-mails were used for instructions. E-learning through digitally supported technology has been promoted. It was used to teach lesson to develop infrastructure and software for alternative approaches for similar pandemic situation. There is a realization to develop a center for e-learning facilities.

There is a program on utilizing returning migrant workers by involving them in agriculture by providing them short term vocational trainings and help them in enterprise development leading to self-employment. NSTB has been asked for data collection to determine available skills and skills gap for skilling, re-skilling and up-skilling of the returning migrant workers. Information of 30,000 workers has been collected to bring them into a RPL scheme. MoEST with the assistance of SKILL project carried out labor market study and skills mapping of the returned migrant workers in the Far Western Province to explore ways of absorbing them in the local market. There is the program to train 59,500 unemployed people from ultra-poor economic strata for ensuring minimum 100 days employment. A forum for foreign employment and returning migrant workers management has been constituted. The portfolio of such workers is to be prepared. There is a committee within the MoLESS to develop alternative approaches to assimilate the returning migrant workers. Local authorities are expected to be activated to collect, manage and feed the information through Employment Information Service Centers. There is a migrant workers window in the EVENT II project in which there is a target to train 5,500 returning migrant workers.

## 1. Background Information

### 1.1. Introduction

Nepal is aspiring for high economic growth and improving people's life through human capital development, which is expressed in the national policy priority of Nepal's developmental agenda. It has been realized by the Government of Nepal that education and training can play a major role in promoting inclusive and sustainable growth. It has also been realized that a strong base of skilled human resource contributes to the economic growth, increases in productivity, and provides career and economic benefits to people leading to social stability and national development. The Nepalese Government has identified a well-functioning; market relevant, high quality and unified Technical and Vocational Education and Vocational Training (TVET) system can play a major role in promoting economic growth of the country and improved quality of life of Nepali people. In this context, the European Union has supported Nepal Government through TVET practical partnership programme for strengthening the country's TVET by promoting shared partnership between supply and demand side for sustainable development and delivery of an effective TVET system. The EU supported TVET-pp programme has envisioned the three distinct result areas:

- Result Area 1 (R1): The quality of TVET provision and implementation scaled-up ensuring that it is made available to the most disadvantaged,
- Result Area 2 (R2): Innovative TVET Practical Partnership Program models piloted to enhance relevance, quality and sustainability of TVET provision in Nepal.
- Result Area 3 (R3): Enhanced capacity and coordination role of Government of Nepal in the TVET system and improve the TVET governance

The Council for Technical Education and Vocational Training (CTEVT) is assigned to implement activities related to result Area 1 under the Sakchyamta Project. Main activities within result Area 1 include improving the capacity of the human resource management system in CTEVT and its institutions, upgrading the financial information system, developing and upgrading a range of training resources for students and teachers, upgrading trainers' skills, organizing meetings, training workshops and seminars and arranging CTEVT staff to participate in international TVET events and supporting partnership activities to strengthen the capacity of CTEVT.

The British Council was given responsibility of executing activities related to result Area 2 and 3. British Council, Nepal has launched “the Dakchyata TVET Practical Partnership Project” through financial assistance by European Union to support and strengthen the TVET sub-sector of Nepal. The Project works on three major areas such as: assisting CTEVT for capacity strengthening of training programs,

supporting Government of Nepal, Ministry of Education in coordinating TVET programmes and services and working on the TVET Practical Partnership model for ensuring relevance, quality and sustainable output of TVET programs in Nepal. Main activities under result Area 2 include facilitating TVET partnership approaches in skill development, test or examine models of practical partnership in TVET in cooperation with similar projects, inspiring employers' community to take part in TVET partnership, designing, developing and implementing a grant scheme to motivate business and industries to be involved in skills development under partnership and monitoring the progress in partnership programs. Moreover, TVET-pp project is expected to support the Government of Nepal (Ministry of Education, Science and Technology) and CTEVT to develop an efficient mechanism for TVET coordination, development and implementation of TVET sector strategies and assist in the development of TVET national fund. Result Area 3 also intended to review and monitor policy implementation at the national level, establishing a system of forecasting demand and supply information of human resources, developing policy guideline to support MoEST and CTEVT and business and industries for smooth implementation of TVET partnership programs, and organizing national and international study tours, workshops and seminars to disseminate best practices in different areas of TVET.

## 1.2. Green Economy

TVET, as closely related as it is with both sociological and technological changes always need to adapt to and work with the conditions at hand. This is also true for environmental considerations. An example of such adaptations in TVET is to those developments, which are often captured under the heading of green economy. Green economies require a transition to green energy generation, based on renewable energy to replace fossil fuels as well as energy conservation and efficient energy use. In terms of regularly monitoring of TVET sector developments, i.e. how TVET promotes and deals with those forces that reduce greenhouse gases is a global issue that has to be translated and interwoven into all human interaction, incl. planning for and implementing TVET programs and in monitoring their progress. Monitoring of TVET developments will also soon be faced with requirements of developing policies-with matching indicators –that TVET as a sector is also proactively contributing to a green economy agenda. Greening TVET helps production to advance to more environmentally conscious practices;

- ✚ A ‘green’ worker is a more employable worker; a ‘green’ workforce will enhance the profitability of the enterprise;
- ✚ National governments need to seize the potential for job creation by providing skills needed in the new green sectors;
- ✚ Disadvantaged groups in the labour market (young people, women, persons with disabilities, rural communities and other vulnerable groups) require targeted

## **2. The assignment**

The Annual Review of the situation of the TVET sector provides important information to the Ministry of Education, Science and Technology and CTEVT about the needs for improvement in the sector. The Annual Review can also serve as the baseline for the next years' review based on which progress in TVET can be monitored;. Realizing the importance of annual progress reviews, the EU supported TVET-PP project document has provisioned coordination, monitoring and annual progress review or baseline studies in the Dakchyata project's component 3.

As a part of Result Area 3 of EU supported TVET-project, Dakchyata has been reviewing annual progress of TVET policy implementation status of Nepal on behalf of Ministry of Education, Science and Technology (MoEST) since 2017. In this connection, Dakchyata has been engaging a team of experts in TVET to support MoEST to review the progress made within TVET policy implementation in the year 2020. This Annual Review will also serve as baseline information for monitoring the TVET policy implementation. Forthcoming reviews are expected to be carried out by the respective Division of MoEST and institutionalize the annual review process (a hand-over process that Dakchyata will support, to enable this transition of responsibility from Dakchyata to MoEST). The Annual Review study of year 2020 will identify or reconfirm the current issues associated with TVET Policy implementation and explore the ways of facilitating the implementation of TVET Policy in a coordinated manner and suggest necessary reforms to support MoEST as a part of its governance, leadership and coordinating role. With this candid background, the study foresees the following purpose and objectives.

## **3. Purpose of the assignment**

The purpose of the current assignment is to review progress in TVET policy implementation and find ways of improving policy implementation in the future. More specifically, the current assignment will attempt to (a) analyze the present situation of TVET in Nepal, (b) carry out comprehensive review of the progress made in resolving the TVET policy issues identified in the previous progress review and (c) identify the policy issues not yet resolved and suggest ways of resolving and overcoming those issues.

## **4. Objectives:**

### Carry out annual review on TVET policy implementation and related issues

- Carry out the review of the current situation of the TVET reform process and accomplishment made with respect to the issues identified in the TVET review made in 2017 (Activity 3.3.4) which will serve as baseline for the year 2020.



- Carry out progress of TVET reform by documenting monitoring information on TVET policy implementation, actions of donors which contribute to TVET reform, and CTEVT activities to improve TVET quality
- Suggest ways and means of resolving issues related to TVET policy implementation in the future.

### **5. Scope of Work:**

The team of experts is expected to review the situation of TVET in 2020 and document the progress made within policy issues identified in the last review. However, the scope of this assignment is limited to collect information on the status of TVET in 2020, document progress made in 2020 with respect to the TVET policy issues identified in 2017 and revised in 2019 and suggest ways of resolving identified policy issues. The team reviewed the available relevant literature such as: reports of 2018 and 2019 base line studies, current reports in TVET, TVET policy implementation plan reform documents and relevant national policies in education, training and employment. Based on the documents reviewed, the team developed a review frame work, developed tools based on the framework, identified sources for data collection and conceptualized the approaches of data collection. The team collected information from identified sources applying various approaches in the context of the COVID - 19 pandemic and prepared the review report of the baseline information, capturing all issues related to TVET policy implementation needed for regular monitoring of TVET reform and Dakchyata TVET PP programs. After completion of the current assignment of the situational analysis of TVET in Nepal and progress review of 2020, this report is prepared.

### **6. Expected outcomes and Key Features:**

1. Comprehensive Review Report of TVET policy implementation and progress made in specific TVET policy related issues identified in 2017.
2. Identify unresolved TVET policy issues in 2020 and suggested ways and means of mitigating those issues related to TVET policy implementation.

#### **Key features:**

TVET review 2020 document has captured the following key features:

- Examining the Public-Private Partnership (PPP) models applied in the TVET sector in order to help bridge the current gap between supply and demand sides of the labour market.
- Activities carried out for the promotion of shared ownership of the TVET system, and to support the sustainable development and delivery of effective TVET policy.

- Ways and means of promoting improved coordination within the TVET sector, new methodologies applied for ensuring that supply meets demand and thus, boosting employment and equal opportunities for young graduates.

### **7. Methodology used:**

This assignment utilized qualitative methodology and an interactive approach. Both primary and secondary information were used while documenting the Annual Review. Primary information was collected by using telephone interviews, email surveys, on-line discussions, and face-to-face interviews. Information was also generated by reviewing secondary information. Secondary information was collected from the progress reports of TVET related organizations, past annual review reports, official documents, internet sites and downloaded information. Ministry of Education, Science and Technology and Council for Technical Education and Vocational Training (CTEVT) were the main source of information, particularly while reviewing formal TVET programs. TVET related Ministries, projects and organizations were consulted, generating information regarding progress in non-formal vocational training programs. Demand side information was generated by contacting FNCCI, Sector Committee members, and commodity organization especially in construction, tourism and agricultural sectors.

This status review study was basically guided by the participatory approach utilizing qualitative research method. Open-ended questions were used to collect qualitative information. Various levels of consultation and participatory approaches were applied, particularly in reviewing progress made in TVET policy implementation. In effect, stakeholders were considered as main source of information concerning collection of information and documenting changes occurred in TVET policy implementation as compared to baseline information prepared a year ago. In the participatory approach, primary stakeholders were active participants, who provided first- hand information. Considering this notion of participatory approach consultation and review of the progress made was the prime focus of the study. Key informants' interview was adopted in this study to generate relevant information which increased the ownership of the review.

Data collection and analysis followed a three-stage approach in concluding situational review assignment. An initial phase included reviewing selective study reports and related documents of TVET policy implementation, including various reference publications to support the discussion. Based on this document review, a general monitoring or review framework was prepared for assessing status of the implementation of TVET policy implementation and progress on policy issues identified in the previous reports (for details, please refer Annex 1).

At the third stage, the review framework was finalized in consultation with the project officials along with the preparation of open-ended questions to generate relevant qualitative information from the stakeholders

(please refer Annex 2 and Annex 3). The second phase also included the preparation of instruments to collect qualitative data from the key informants. Semi-structured open-ended questions were used (please refer Annex 2) to collect qualitative information from the selected informants. Finally, in the third phase, the information collected utilizing the instruments prepared in the second and third stage was processed and analyzed to produce the written review report. The three stages of data collection are presented in more detail in the following section.

### **8. Desk Review**

In order to capture the overall insight of the TVET policy implementation in response to 7 clustered issue areas, relevant recently published documents, policies, and progress reports were collected. The team of experts carried out a desk review to document information relevant to issues of each cluster identified in the baseline study of 2019. The desk review was also enriched by reviewing the various related 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. Similarly, outcomes of the policy dialogue process conducted by SKILLS project in which the TVET expert committee was 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 2019, recent reports and publications of TVET related project were also consulted.

### **9. Key Informants' Interview**

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

*Key stakeholders:* The Council for Technical education and Vocational Training (CTEVT) is the national body responsible the development, expansion, coordination, quality assurance of TVET in Nepal. CTEVT and its Divisions and projects being in operation under CTEVT is the main source of the review information. Officials responsible for TVET policy implementation and related issues were consulted to generate required information for national TVET review and assess the status of reforms related with TVET issues identified in the TVET review of 2019 as the baseline for this study. Under the key stakeholders, the study team consulted with the key informants of TVET line ministries such as Ministry of Labor, Employment, and Social Security (MoLESS), Ministry of Industry (MoI), Ministry of Education, Science and Technology (MoEST), as they were 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 Tourism, and Ministry of Agriculture to document the progress on TVET policy implementation.

*Targeted Beneficiaries Including Private Sector:* Employers' community is targeting beneficiaries of technical and vocational education and training. 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 development. Target beneficiaries were also consulted to find out the employability of TVET graduates and employers' contribution in TVET development and reform.

*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 supporting TVET development such as SDC supported project: NVQS, World Bank supported project EVENT II, UNDP and personnel of the SKILLS project 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 and TVET-PP projects were also consulted (see the list of organizations and individuals contacted in Annex 4).

#### **10. Data Collection Approaches:**

Due to the adverse situation of pandemic COVID 19, different approaches of data collections were applied. Face to face interview, discussions and interactions were put on top approach of the data collections. Virtual discussions through telephones, email communications, telephone interviews were also applied. In addition, internet facilities were utilized by mailing the questionnaire to the key informants with the ample space of writing for the valid responses. Collected information was analyzed, sorted out and comprehensive report was developed with the joint efforts. The approaches were applied to collect the data differently due to Covid 19 pandemic.

#### **11. Design of the TVET Status Review**

In order to conceptualize the overall TVET status review process, a TVET status review framework is prepared. The framework guides the team of experts to identify the policy areas to be reviewed and corresponding issues and progress made in those issues. The issue-based questions also served as open ended questions to be used during Key Informant's Interviews (KII). The framework also helped the review team to identify data sources and methods or approaches of data collection. The TVET Status Review framework was used in this TVET review process (See the design matrix in Annex 1). The study clustered the identified issues in seven categories which are presented as below:

#### **12 Cluster of the identified issues**

##### **12. 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

## **12.2 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

## **12.3 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

## **12.4 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 (NSCO)

## **12.5 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

## **12.6 TVET Implementation Management**

- 6.1 Effective Coordination Mechanism in TVET
- 6.2 Assurance of progress of policy implementation
- 6.3 Sustainability and Financing

## **12.7 COVID 19 Effects**

- 7.1 Challenges of COVID 19

## 7.2 Opportunities created by COVID 19

## 7.3 Returning Migrant Workers Management

### 13. Review of the Situation of Technical Vocational Education and Training in Nepal in 2020

In this section, information generated from key informants' interviews of key stakeholders and beneficiaries were processed and presented as the current status on each issue identified in the baseline study of 2019. The field information is also supplemented with the information generated from recent document reviews. The information on the current status in each of the issue 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 of prior learning, and role of the private sector and capacity development.

#### 13.1 Equitable Access in TVET

##### 13.1.1 Basis of TVET institution establishment or skills training selection

The strengths of TVET in Nepal is carried out through a functional apex institution, titled the Council for Technical Education and Vocational Training (CTEVT), mandated by the TVET Act 1989, strong skills testing through the National Skills Testing Board (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 (**R & I, CTEVT**). Training institutions are established, or the selection of training programs is done on the basis of market research or training needs assessment. Similarly, the base is made on the requests or demands of local authority, industry and business, individual requests, requests of the training providers and human resource projection or plan of the central and provincial governments (**R&ID and CDED, CTEVT**). Quality infrastructure, technical team of management, 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, but geographical mapping is done once institutions and programs are in operation. Such initiatives were done in the past and are being continued in 2020 as well (**CTEVT**). Selection of training programs is made, based on the annual program and budget but such courses are not supported by any demand side information (**VSDTA and CSSIPC**). Under the Ministry of Agriculture, training programs are designed and implemented at the local level under provincial governments. There is no connection of training implementation at the federal offices. NATHM offers both formal and vocational courses of front office, kitchen related, service related and housekeeping occupations. However, the program selection of NATHM is also conventional. The specialty of vocational courses offered by NATHM is different from other government agencies and donor supported programs in terms of charging

fees. Government agencies and donor supported projects have been offering vocational courses free of cost. However, NATHM provides vocational training courses with considerable amount of fees **(NATHM)**.

Office of PMEP provides vocational training to ultra-poor and unemployed youths as a social protection instrument by ensuring minimum 100 days employment. Such vocational courses are designed in a distinct module, addressing the employment needs. Equal Access, balancing gender is well considered in each legal structure under FNCCI **(FNCCI)**. There is an information gap and the problem of mismatch between demand and supply due to lack of proper process in selecting TVET programs **(CND)**. CTEVT and CEHRD carry out open advertisement for submitting proposals for new training institutions and programs. The professional experts inspect the physical facilities of the proposed institutions and recommend accordingly. Based on the experts' recommendation, the concerned authority approves the establishment of training institutions **(MoEST)**. EVENT II offers result based vocational training and TSPs have to prove that the vocational course they request to implement must be as per the market demands because they have to conduct a Rapid Market Analysis at the program proposing stage and they have to place minimum 70% graduates at least for six months in employment schemes after training completion **(EVENT II)**. The Centre for Education and Human Resource Development under MoEST offers set vocational courses from 9-12 in agriculture plant science, livestock, and computer, electrical and civil subjects **(CEHRD / MoEST)**.

### **13.1.2 Scholarship provisions in TVET**

CTEVT provides scholarships in different categories, such as special scholarship, intelligence scholarships; classified scholarships, and free vocational courses along with casual project supported training programs free of cost to the trainees, who intent to go for training that meet market needs. CTEVT provides special scholarships to DAG people through a separate budget, allocated by the Government. All expenses including food and accommodation are covered for such students. Similarly, 10% trainees receive classified and intelligent scholarship in each formal (long term) course. However, a large number of out of school youths from low-income strata are not being accommodated in technical and vocational education from such schemes. CTEVT needs to explore an innovative TVET strategy to accommodate larger numbers of youths, who aspire to join TVET programs with no charges. TECS is an attempt to offer TVET to low-income groups and broad geographical coverage of TVET offerings. Similarly, the 9-12 streams are an attempt to include a larger number of students and make their access easier in TVET. CTEVT provided various vocational trainings to 42,000 people in all provinces last year since additional funds were provided by the government. CTEVT is conducting dual VET (Apprenticeship) training for 500 students supported by the ENSSURE project in this fiscal year **(R&I/CTEVT)**.

**Table 1: Type of scholarships provided to TVET trainees**

SN	Type of scholarships	Location/programs	Number of trainees
1	Intelligent and classified scholarship	All over Nepal in each diploma and pre-diploma courses	10% of total intake
2	Special scholarship	All over Nepal in Diploma and pre-diploma level programs	560 DAG people each year (receive free training including food, accommodation and transportation cost)
3	Apprenticeship Program	All over Nepal supported by ENSSURE Project	500
4	Vocational Courses supported by Nepal Government at Province Level		
	1 No. Province	At Provincial Coverage	6,000
	2 No. Province	At Provincial Coverage	6,000
	Bagmati Province	At Provincial Coverage	6,000
	Gandaki Province	At Provincial Coverage	6,000
	Lumbini Province	At Provincial Coverage	6,000
	Kanarli Province	At Provincial Coverage	6,000
	Far-west Province	At Provincial Coverage	6,000
5	Vocational Courses offered by other Gov. Agencies and Donor supported projects		
	EVENT II (World Bank)	All over Nepal	115,000 (in four years)
	VSDTA (GOV)		10940
	CSSI (GOV)		No data available
	NATHM (GOV)		Trainings are offered on requests on fees basis

Source: CTEVT records, 2020

In addition, the scholarships being provided in long term training programs, all government agencies such as CTEVT, VSDTA and CSSIPC including donor supported projects provide skills training free of costs, whereas NATHM offers vocational courses charging considerable amount of fees to trainees.

**Table 2 Province wise quota and scholarship distribution in diploma level programs**

SN.	Provinces	No. of programs	Total approved Quota	Classified Scholarship	Merit Scholarship	Total Scholarship
1	Province 1	99	4012	301	99	400
2	Province 2	121	5102	393	121	514
3	Bagmati Province	301	12195	879	301	1180
4	Gandaki Province	75	3132	243	75	318
5	Lumbini Province	164	6768	531	164	695
6	Kanarli Province	84	3576	269	84	353
7	Far-western	106	4404	341	106	447



Province					
<b>Grand Total</b>	<b>950</b>	<b>39189</b>	<b>2957</b>	<b>950</b>	<b>3907</b>

*(Source: CTEVT Examination Controller's Office), 2020*

There are 950 diploma level programs in operation in all provinces. They can enroll a maximum of 39,189 students per year and offer scholarship to 3,907 students. Center for Education and Human Resource Development under Ministry of Education, Science and Technology has enrollment capacity to train 23,232 students and the students are trained at free of cost. The total number of graduated in class 12 is 5,138 in 2020 and 6,022 in 2019 from the 9-12 TVET stream of community schools (CEHRD/MoEST).

**Table: 3 Province wise quota and scholarship distribution in pre-diploma level programs**

SN.	Provinces	No. of programs	Total approved Quota	Classified Scholarship	Merit Scholarship	Total Scholarship
1	Province 1	125	5400	369	125	494
2	Province 2	96	3824	273	96	369
3	Bagmati Province	185	7380	517	185	702
4	Gandaki Province	77	3064	211	77	288
5	Lumbini Province	160	6286	430	160	590
6	Kanarli Province	106	4240	306	106	412
7	Far-western Province	134	5360	390	134	524
	<b>Grand Total</b>	<b>883</b>	<b>35554</b>	<b>2496</b>	<b>883</b>	<b>3379</b>

*(Source: CTVET Examination Controller's Office), 2020*

There are 883 pre-diploma level programs in operation in which there is a 33,554-enrolment capacity and 3,379 students receive scholarship each year.

### 13.1.3 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 Technical Education at Community Schools (TECS) and recently the 9-12 technical education stream run by MoEST. The stated institutes offer formal courses up to diploma level and mostly demand driven vocational courses. Universities offer technical and professional degree courses (R&I, CTEVT)

**Table 4: Institutions in operation**

SN	Types of Institutions	Number
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1	Constituent Institutions	61
2	Privately Managed (affiliated)	429
3	Institutions Managed in Partnership	20
4	Technical Education at Community Schools	563
5	9-12 TVET in Government Schools	484
6	Institutions offering vocational short courses (affiliated )	1100+

Source: CTEVT Journal

#### 13.1.4 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: (b) Technical and vocational training and professional development training programs.

**Table 5: Formal TVET programs can be listed as follows:**

SN	Level	Program	Offered by
1	Bachelor and Masters' level programs	Bachelor in: <ul style="list-style-type: none"> <li>• Engineering,</li> <li>• Agriculture,</li> <li>• Medicine</li> <li>• Forestry</li> <li>• Hotel Management</li> </ul>	Universities
2	Diploma and Proficiency Certificate level programs	Diploma/ PCL in: <ul style="list-style-type: none"> <li>• Engineering</li> <li>• Agriculture</li> <li>• Health</li> <li>• Forestry and</li> <li>• Tourism</li> </ul>	CTEVT and affiliated institutions
3	Pre-diploma level programs	Pre-Diploma in <ul style="list-style-type: none"> <li>• Engineering</li> <li>• Agriculture</li> <li>• Tourism</li> </ul>	CTEVT and affiliated institutions
4	9-12 level TVET programs	Diploma and Pre-diploma in: <ul style="list-style-type: none"> <li>• Engineering</li> <li>• Agriculture</li> </ul>	MoEST
5	Vocational Courses	Different occupations as demanded by labour market	CTEVT, affiliated institutions, Government Agencies and Donor supported projects

(Source: CTEVT and other agencies)

In addition to the formal training, CTEVT provides non-formal and professional training to equip the TVET professionals for the quality and effective TVET delivery within the organization and for the entire TVET sector. Such training programs are: Skills Assessors Training, Skills Counselor Training, Instructor

Training and Curriculum Development expert's training; the programs of different levels are affirmed by constituent and affiliated institutions (**R&I/CTVET**). 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.

## 13.2 TVET Relevance

### 13.2.1 LMIS current situation in Nepal

The LMIS system is expected to be operational within the CTEVT but is not functional as it should be. However, job signaling studies have been conducted in the past but only the job portal is in operation and is in use for employment purpose. However, LMIS system has not been institutionalized, e.g. with regular planned data collection and studies. Tracer studies have been conducted at province level and such studies have been made mandatory at school level, but the information obtained from tracer studies has not been utilized for programs and curricula development (**R&I, CTEVT**). CTVET has its own LMIS within the CTEVT website, but the system needs to be updated for its effective use. CTEVT has also TMIS for effective administration of examinations and certification. The system is being operated for the diploma level programs (**NSTB/ ECO/CTVET**). VSDTA and CSSIPC offer vocational training courses by inviting training providers through a tender process. They select the training providers and ask to implement the training programs as approved in their annual programs. While developing the annual programs, LMIS system is not utilized. The programs are the results of experiences they have, availability of curricula and infrastructure (**VSDTA and CSSIPC**). However, donor supported projects also outsource the training providers, but they focus on market demand courses through different means such as TNA, RMA, employer's requests and information of studies either conducted by them or utilized available information (**EVENT II**). Research and studies are conducted and information is being utilized for the betterment of their own programs. The graduates of academic program are mostly employed overseas (**NATHM**). Ministry of Education, Science and Technology has the report of gap analysis of skilled workers conducted by CERID. MoEST and Ministry of Labour, Employment and Social Security are working together on LMIS. Data of six different ministries are available. There are 6-8 functional Information Centers. There is the plan that every Palika will have an Information Center catering for information of unemployed youths, trained graduates and available employment opportunities. Such Centers will also play the role to bridge the gap between demands and trained human resources. MoEST has a TMIS system and this is effective (**MoEST**).

Dakchyata has started to work together with five national level employer associations (EAs): Federation of Nepalese Chamber of Commerce and Industry (FNCCI), Confederation of Nepalese Industries (CNI), Federation of Nepalese Cottage and Small Industries (FNCSI), Federation of Contractors Association of Nepal (FCAN) and Hotel Association of Nepal (HAN) in late 2020 to assess the labour market

information within three important economic sectors: Construction, Tourism and Agriculture, through members and representatives of employer associations. This is expected to boost LMI on the demand side, once the system becomes operational (**British Council. 2020, Bi-annual report of Dakchyata: TVET Practical Partnership**). In the overall scenario, the concept of LMIS and TMIS exist in the country, however, there is a long way to go for the effective use of such systems and utilizing information from designing of TVET programs to the meaningful outcomes.

### 13.2.2 Tracer study of TVET graduates

Tracer studies have been conducted at provincial level and such studies have been made mandatory for schools to conduct every year. However, the information derived from tracer studies is neither linked to CTEVT's LMIS system, nor is it utilized for program and curriculum development (**R&I, CTEVT**). NSTB certified graduates were traced in the past, but tracer studies are not institutionalized. There is a program to trace certified graduates of NSTB in 2020. Due to the Covid 19, the program has not been implemented yet. The information received from tracer studies is expected to be 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**). There are tracer studies and impact studies in the plan but due to COVID 19, the programs are not implemented yet (**VSDTA**). NATHM conducts studies in a form of tracer studies for formal graduates; however, they have no information about vocational training graduates (**NATHM**). There is a joint monitoring mechanism, and they monitor trainees from the day of selection till six months income verification of the graduates in the EVENT project (**EVENT II**).

### 13.2.3 Demand forecast

There is demand forecast at institutional level through TNA and other research studies to develop new programs and implement such, but no concrete data are available at national level. CTEVT has conducted meetings with Morang Chambers of Commerce and Industry. There are a lot of interactions with business and industry for the demand of the skilled human resources but concrete steps such as making MOU have not been taken yet. 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**).

Dakchyata has supported Sakchyamta in the development of Occupational Demand Tools (ODT) in 2019 and the tool has been piloted in some occupations in 3 sectors. The support also included an operational manual to administer the tools, briefing materials and training in the use of ODT. The initialization may lead to future demand forecast (**Sakchyamta**). It was suggested by the stakeholders that NPC, CTEVT, MoEST and UGC together should work on demand forecast but the action is still not taken in this direction. MoEST has formed a committee and the committee has submitted its report in this respect but is not published yet. CBS has some data of demand forecast, but the use of such data is also not effective

because they forecast the data of unemployment during the national population census (which only happens with yearly intervals and is only current for a short while). MoEST produces its report on human resources required, but only for needs of the Ministry itself. Skills Project conducted research for mapping the skills demand and that report is available. CTEVT has also conducted similar studies for skills demand and that report is available. As mentioned earlier, now the Dakchyata project is working on together with business and industries in LMI. It is hoped that this initiative will bring some tangible results to forecast the future demands of skilled human resources (**MoEST**). There is no systematic demand forecast approach; however, demands are received through individual and personal approaches (**NATHM**). There is no system to forecast demands of skilled workers. Particular industry may forecast their demands of skilled workers (**FNCSI**). Demands are collected from all districts (**VSDTA**).

#### **13.2.4 Private sector involvement in selecting and prioritizing TVET programs**

NSTB with the help of NVQ project has constituted three sector skills committees and the committees are led by business and industry. Theoretically, it seems that there is less involvement of private sector, however, in practice; the private sector has a high voice in each TVET program (**R&I/CTVET**). The experts from business and industry involve in occupational analysis for curriculum and national occupational skills standards development, but the involvement is there at individual level and ownership is not taken at institutional level (**CDED/CTEVT**).

The involvement of private sector is at policy level. Presidents of HAN, TAN and NATA are members of the Board. Their voice is well heard, and demand of the sector is put forward by them (**NATHM**). The representatives of business and industry are in the curriculum board (**VSDTA**). However, FNCCI claims that there is less involvement of the private sector in curriculum development and even less involvement in policy formulation (**FNCSI**). But participants from HAN observed that the involvement of private sector has 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. Donor supported projects such as Dakchyata are having partnership with business and industries (**HAN**). But some TVET institutions are not able to involve the private sector in their TVET programs (**CSSIPC**).

Information generated through KII revealed that there is an increased private sector involvement in CTEVT programs but comparatively less involvement in the programs implemented by other sector ministries. Due to the weak coordination mechanism, resources of private sector are not utilized for human resource development (**FCAN**). However, the private sector is involved through sector skills committees. There is more involvement of FCAN and HAN in competency and curricula development (**FNCCI**). A legal mandate to sector committees would facilitate private sector involvement in TVET. OJT, internship and apprenticeship modalities are integral part of the training programs. TSPs must have strong relations with business and industries for the exposure of world of work (**EVENT II**). There is

representation of business and industries in different committees at institutional level. Similarly, there is also the representation in the professional committees at the policy level. Most of the TVET programs are being implemented by the providers without consent by the private sector and therefore is supply driven. However, projects such as Dakchyata, Sakchyamta, ENSSURE, SKILLS/UNDP and Student Welfare Fund have been working together with business and industries.

### 13.2.5 Work Based Learning with Business and Industry

Internship program is part of curricula, particularly in university programs but On-the-Job Training (OJT) and apprenticeship programs are being practiced as work-based learning in formal and non-formal training programs. OJT is quite effective in CTEVT constituent schools, but not that much effective in affiliated institutions. Apprenticeship modality, though, was being practiced in the institutions of engineering sector in the past. Recently, ENSSURE project has been providing support to the modality and currently 500 students have been undergoing apprenticeship training under partnership between training providers and business and industries (**R&I/CTEVT**). TITI offers occupational Skills upgrading training programs to instructors by placing them in business and industries for real work exposures (**TITI**). This year, the apprenticeship training program is being implemented by VSDTA, once the COVID 19 situation is bit relaxed (**VSDTA**). Internship exposure is mandatory in business and industries for the students of academic undergraduate programs, whereas vocational trainees conduct hands on practice in the labs and workshops within the campus. Some training related to the adventure is conducted at the site itself (**NATHM**). For the apprenticeship program, the support of ENSSURE project is praiseworthy. However, the efforts should be intensified within a wide spectrum (**CNI**). Being a big industry, which provides employment for a huge number of people, FCAN is not properly coordinated for developing skilled human resources. The industry is bound to work with a vast number of Indian workers (**FCAN**). Internship, OJT and apprenticeship if institutionalized in collaboration with the business and industry as a core requirement of the approved curricula (**MoEST**), both participating students and industries would benefit. The experiential learning in the current state is not at the desired level. There is less exposure to trainees in skills demanded by industry and business. 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 program of all levels. The Dakchyata project is conducted pilot projects to study and explore the possible training models and developed seven different models to pilot test for experiential learning in TVET sector. The project is piloting Practical Partnership project (TVET-PP Models) together with training providers and employers in three sectors: agriculture, construction and tourism. The selected 10 partners have been implementing one or more models to conduct vocational training under partnership with employers (**Dakchyata Project**). The outcome and lessons learnt of such initiations are yet to be assessed and selected models are expected to be replicated

in future, demonstrating how the public and private sectors in the most efficient and effective ways can collaborate in TVET training, which leads trainees to acquire the qualifications and skills that employers want.

### 13.2.6 Training Modality

CTEVT offers TVET programs through different modalities. In house trainings are conducted together with theoretical component in the classrooms and practical exposures in the labs/workshops within the campus of the training institution. Vocational training programs are designed with 20/80 ratio for theory and practical components respectively. As the level of the program goes up, the ratio of theory and practical differs. OJT or internship components are included in almost all TVET curricula. Apprenticeship modality is in practice in partnership with business and industry. Some of the modalities in practice are: Institution based Institution + OJT, Apprenticeship with Business and Industry and Partnership with professional associations, Municipalities, and Boards. Outreach, mobile and satellite training programs also delivered reaching at the doorsteps of training recipients. Now dual VET (Apprenticeship) has been ongoing in CTEVT supported by ENSSURE project. **(R&I/CTEVT)**. NATHM offers TVET programs within the institution, at the sites but for formal courses, mandatory experiential learning is the practice in the business and industries **(NATHM)**. VSDTA offers training programs by outsourcing training providers, conducts training in their own set ups and also delivers in partnership with business and industries as an apprenticeship modality **(VSDTA)**. CSSPIC offers training programs within institution and conducts training in partnership with local authorities **(CSSPC)**. Training providers are outsourced through a bidding process to implement the vocational training backed by a six-phase monitoring mechanism to ensure the training quality. The result and voucher based - two different training modalities have been practiced **(EVENT II)**. Dakchyata project is piloting TVET-PPP models with TTPs and employers **(Dakchyata Project)**.

### 13.2.7 Curriculum development and revision process

The basis of curriculum development is made through collecting demands from different sources. Some of the information sources are individual requests, requests from business and industry, TNA reports, reports of research and studies, requests of training institutions and strategic plan of all level of government. While designing the curricula, two different processes (DACUM and Functional Analysis) are being adopted in case of vocational short term and pre-diploma level curricula. Once the profile is prepared, verification with business and industry is conducted. The final list of occupational standards is further worked out by the experts through a task analysis. The experts' team prepares the course structure, modules and content needed for each structure. Once the draft version is prepared, the sector committee or sub-committee goes through it for further inputs. The final draft curriculum is taken to the Technical Committee for necessary inputs and is submitted to the Board for approval. Diploma level curricula are developed by involving the experts of subject committee as enlisted in the approved roster from

industries, universities and institutions. The approved curriculum is oriented through different workshops to the instructors before its implementation. After implementation, feedbacks on curriculum are constantly collected and curriculum is revised, based on the received feedbacks. While revising the curriculum, the entire cycle is repeated except the steps of occupational/job analysis (**CDED/CTEVT**). Guidelines for the development of integrated curricula have been developed. The integrated curricula of 9-12 stream in agriculture and engineering has been prepared in a draft version (**CDED/CTEVT, CEHRD**). Up to now, CTEVT has developed 241 short courses, 31 pre-diploma courses, 48 diploma courses (Total: 320) and 299 National Occupational Skills Standards. There are plenty of learning materials available in the market; therefore, learning materials are cited from the available list in the curriculum. Independent writers come for preface writing and request to prescribe their books as reference materials. Similarly, CDED of CTEVT also grants equivalency up to diploma level of the qualification acquired from overseas (**CDED, NSTB/CTEVT**). CTEVT has been using the DACUM tool for designing the TVET curricula which is a bottom-up process approach. In assistance of both the Dakchyata and the Sakchyamta project, 16 people were trained to use the functional analysis tool, which directs top to bottom down approach. A study was conducted in the agriculture, construction and tourism sectors, which identified 15 new areas of training. Fifteen new curricula are being developed and fifteen curricula are being revised. Manuals for new vocational courses and revised courses are being developed by selected instructors supported by the consultant hired by the project. E-learning materials are being developed for the alternative teaching and learning approach in TVET programs (**Sakchyamta**). No new curriculum has been developed and revised for a long time in CSSIP and no attempts were made to share CTEVT revised skill training curricula (**CSSIPC**). VSDA Implements both CTEVT approved curricula and curricula developed by their own mechanism (**VSDA**). Demands are collected from industry and business and curriculum is developed and revised by the institution itself. For the formal curricula, the university develops these through its own procedures (**NATHM**). Whatever claims are made by individual authority, there is no national standard of curriculum development procedure. Each entity has been working in their own way which is causing duplication of efforts. In this regard, CTEVT should have a leading role in the common and national standard of curriculum development procedures. They claim that they involve business and industry in the curriculum development and revision process, but the involvement is limited at an individual level, which needs instead to be institutionalized in order to produce ownership by business and industry. The Dakchyata/ Sakchyamta Projects have been providing input by contracting the consultant to standardizing and developing market and credit-based curricula and training materials through massive involvement of employers (**Dakchyata**). Such initialization is believed to reduce the mismatch situation of demand and supply of skilled human resources to minimize in future.



### 13.3. TVET Quality

#### 13.3.1 Assurance of Quality Input/Learning in TVET

Quality is the pivotal of all TVET programs. If there is no quality every effort goes in vain. Trained and experienced instructors, well designed and industry owned curricula, well equipped infrastructure, learning environment, effective management, and timely monitoring and supervision are some of the indicators for quality input in the learning of TVET programs and this is the foundation of quality TVET. Examinations, tests and certification mechanisms also ensure the quality output of the system. The development of a quality improvement manual is in progress. Accreditation provisions are revised, and 127 E-Learning manuals are in the process (**ACC/CTEVT**). The programs are being made demand driven, backed by research; examinations are being made reliable through conducting entrance, as well as formative and summative examinations. TOT to instructors is made mandatory. There are guidelines for running the production units within the training institutions; experiential learning is made inclusive in the curriculum in the form of OJT, apprenticeship and through internship. Regular monitoring and supervision are carried out with well-designed monitoring tools and mechanism to involve employers throughout the training programs, made effective in nine Dakchyata supported CTEVT schools (**R&I/CTEVT**). TITI provided different instructional and leadership training of 6,615 person/weeks to 1,400 individuals, 14 new curricula of instructor training are developed and 9 curricula are revised, annual journal is published and six skills cards are developed. Similarly, six occupational upgrading courses designed and training to instructors are provided (**TITI**). Workshops were conducted to develop guidelines of collaboration mechanism in the provinces. Center of Excellence in agriculture, construction and tourism are being developed by selecting three CTEVT schools in Pokhara, Lahan and Tikapur as pilot projects. Labs and workshops have been upgraded by supplying equipment, kits and software. Model kitchen has been developed. E-learning system made functional. 25 classrooms were developed in 25 technical schools for E-learning and supported to develop e-learning materials. Similarly, tools are being developed for accreditation and some research activities are in under planning (**Sakchyamta**). Monitoring of the training programs are regularly done to ensure the quality of training programs (**VSDTA**). Standard curricula and timely revision, guest lectures by experts of business and industry, qualified, experienced and trained (in country and abroad) instructors, well equipped labs and workshops, external examination system and grading in vocational training programs and minimum 80% attendance in the training are the input needed for quality training to be achieved (**NATHM**). Quality of workers is rated by the individual industry but there is a mismatch between supply and demands (**FNCCI**). Private sector is approaching CTEVT for improvement. Accreditation done by CTEVT is accepted by business and industry. There is gradual improvement to be seen. However, an extensive coordination mechanism is needed between business and industry and training providers (**CNI**). There is little access for TVET graduates in the industry. Thus, there is no question of the quality input (**FCAN**). There are directives and

guidelines, but the implications of such guidelines are not effective (**MoEST**). Quality is there to some extent. However, better management is required (**HAN**). Entrepreneurial training and evaluation in the end of the training session and feedback from trainees ensures quality input (**CSSIPC**). Six times monitoring from entrance to income verification of six months after completion of the training programs and trainers with compulsory TOT provision are made effective (**EVENT II**). Quality assurance is the critical aspect of TVET implementation, which needs ever improvement in all aspects from demands to employment outcome with dignified earning. Relevancy of training program is the crux of the TVET sub-sector. Therefore, improving quality and relevance of TVET programs can be accomplished through better quality assurance standards for monitoring and evaluation, Dakchyata Project has procured the consultant and progress is underway (**Dakchyata Project**).

### 13.3.2 Assurance of Process Quality in TVET

Formative evaluations are encouraged to be conducted with a certain interval of time by giving certain credit to the process. Question banks are developed and made accessible to trainees for regular practice on the pattern they will be evaluated (ECO/CTEVT). Learning materials are developed, particularly for E-learning after COVID has hit. Regular monitoring and supervision are made effective with well-designed tools. Instant suggestions are provided to improve the training quality during the training sessions (**Sakchyamta, R&I/CTEVT**). Follow up studies are made mandatory at school level and counseling support is provided to trainees (**NSTB/CTEVT**). Initiation to involve the private sector is gradually increasing and they are being made responsible for institutionalizing ownership. Assurance of effectiveness of TVET programs can be made on the basis of training developed by business and industry and NOCS demand driven curricula, equipped infrastructure, industry experienced and trained instructors, implementation of NVQF and assessment and evaluation conducted by third party (**NSTB/CTEVT**). Lesson plans, schedules, and use of common language and producing trained instructors could support process input to ensure 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**). According to NATHM, T U conducts evaluation and there is 100% result in formal programs. All graduates are employed and there is more attraction for foreign employment, but vocational training is mostly conducted within the institution by trained and experienced instructors, however; employment information of vocational graduates is not recorded because many of them switched profession over time (**NATHM**). Regular monitoring and supervision are carried out to ensure the quality of the training (**VSDTA**). For the process input in the TVET programs, legalized and regularized follow up and tracer studies have to be conducted on a regular basis as part of the training programs, but such efforts are neither made at the institutional level nor at the center.

### 13.3.3 Assurance of Outcome of learning in TVET

Tracer studies are made compulsory at school level but not linked to LMIS. Business and industries feel that there is a certain gap between supply and demand. The learning outcome is not at a desired level, due to the absence of strong coordination mechanism between training providers and business and industries **(R&I/CTEVT)**. 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 applied to measure TVET outcomes. Impact studies are rarely conducted, and the information utilized for the betterment of TVET system **(NSTB/CTEVT)**. Individual industries are instructed to make plans for life-long learning and skills upgrading within business and industry **(FNCCI)**. Learning outcome of TVET programs both in and outside of the country is good and is gradually improving; however intensive efforts are to be made for further improvement. Honesty is required at the institutional level and training should not be for the sake of training. Infrastructure of training institutions is not in line with the technology being used in business and industry **(HAN)**. Training programs under EVENT II project are supported by six rounds of monitoring and supervision, beginning from trainee's selection till nine months of income verification by the joint monitoring team, including third party. The memorandum of understanding is made with training providers that they should guarantee employment minimum 70-80% at least for six months after the completion of the training event. Failing to ensure the employment, training providers will not be reimbursed the training costs and incentives. According to the third-party evaluation, more than 75% employment is found within the country **(EVENT II)**. More than 89% employment is there in case of formal courses **(NATHM)**. The business and industry should be made aware that the system can provide benefits to both individual for having recognized certificate and to industry for cheap service in a longer period of time. The relation and information of skills level of graduates can help obtain employment in the same industry easily **(FNCCI)**. Tracer studies and impact studies have to be legalized and regularized in a certain span of time so that the impact study will provide the information of the status of economic and social changes in the life of TVET graduates, which can help modify the existing TVET programs.

### 13.3.4 Assurance of effective programs

Program effectiveness is examined by conducting program evaluation. Programs are considered effective if the program is producing intended outcomes. Periodic tracer studies, follow-up studies and impact studies are the source of information to ensure program effectiveness. Interaction with the stakeholders revealed that these kinds of studies are not systematically planned and executed. There is no convincing evidence that TVET programs currently running are effective. Graduates' retention in the profession and employers' satisfaction are also predictors of program effectiveness. However, mismatch of the training is always raised as an issue by the employers, which is forcing the training supplier to think seriously about the quality of training and turn such training programs into effective delivery. 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 (**R&I/CTEVT**). Skills training provided by training providers are not in line with what the employers are seeking for because of not having a system of arranging proper flow of supply and demand information (**FNCCI**). There is a gradual improvement but massive expansion has raised question about the training quality. Employment of graduates is the single most obvious predictor of program effectiveness. There are employment opportunities in five-star level hotels being run throughout the country. No skilled workers are available as a result; hotels are working with a large number of foreign workers. Tenth of thousands Nepalese workers are working in cruise service abroad. Skilled human resources have plenty of opportunities within the country and also abroad, since the hotel industry is operated as per global standards (**HAN**). More than 75% employment within the country is found for the training programs conducted by the EVENT II project as the study report has revealed (**EVENT II**). No skilled workers trained by training providers come and seek employment since construction is a huge industry offering employment for a huge number of people (**FCAN**).

#### 13.3.5 Switching TVET Programs

Pre-diploma level health related programs have been closed due to the oversupply and removal of the positions in the government offices. However, there are not any efforts made to switch such programs to other programs to utilize the available infrastructure and resources (**R&I/CTEVT**). Front office training courses are closed and the content of the course is addressed by BHM curriculum. Similarly, switching of the courses often take place as often as the menu of the hotel related items are changed (**NATHM**). 9-12 TVET programs at community schools have widened access of people in TVET at the doorsteps of students (**CEHRD**). In reality, no training program has yet switched or replaced in response to the local demands to utilize the existing TVET resources neither the saturation of demand of any TVET programs has studied yet except health-related programs.

### 13.4. Integration and mobility in TVET Programs

#### 13.4.1 Assurance of RPL in TVET

Data base has been developed for returning migrants and there is a plan for the training need assessment of the returning migrants (**ACC/CTEVT**). A system of recognizing prior learning through informal or non-formal means is being initiated. Vertical and horizontal mobility is facilitated by the national qualification system and provision for recognizing prior learning (RPL). Prior Learning Recognition (RPL) has been piloted in Pokhara and Balaju (**R&I/CTEVT**). There was a problem in issuing the provision certificate of RPL graduates due to lack of sufficient preparedness. Pre-assessment of all RPL seekers will be done through individual portfolio. Once the portfolio is reviewed, recommendations will be done for complete assessment. For the successful RPL graduates, competency certificate will be issued (**NSTB/CTEVT**). The RPL manual has been reviewed. A coordinator has been assigned to lead the RPL

team. Process guides for assessors and counselors have been developed. National Occupational competencies in six occupations have been developed. Now, RPL is in a ready position to be scaled up. Public service announcement has been made through “Ujyalo” radio. Data base preparation of returning migrants and displaced workers is in process. The information of 30,000 workers has been collected. The MOU is being made with SAMI for RPL assessment to support for 5,000 RPL seekers. Preparation has been completed to train the RPL counselors. The counselors are supposed to prepare individual portfolio of the RPL seekers and based on the portfolio information, they will pre-assess the RPL candidate and recommend the assessment. The successful RPL graduates will receive even unit certificate (**NVQS/ NSTB/ Swisscontact/CTEVT**). Coordination for RPL with CTEVT is functional (**EVENT II**). There is RPL in skills tests within the CTEVT system 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 ACT has not yet been approved which is causing delay in its implementation.

#### 13.4.2 Functioning of NVQF in TVET

NQF has been approved by the Cabinet. The framework comprises of L1-L8 including RPL and life-long learning. The authority will take responsibility to involve both public and private sectors, once NVQF will be functional (**NSTB/CTEVT**). NQ framework has been developed and approved by the Cabinet. The Cabinet instructed MoEST to assign CTEVT to prepare the detailed legal provisions, structure roadmap and governance. For the job, a consultant has been hired and the work is in progress. A core team has been constituted and the team is working on the matter. The activity of information dissemination is yet to be carried out. Guidelines for National Occupation Competency, Assessment Package Development, Credit Transfer System, Accreditation and Licensing to Assessors have been developed. Necessary human resources have been deployed and trained to carry out the activities of RPL and skills tests (**NVQS/ NSTB/ Swisscontact/CTEVT**). The following table illustrates the description of skill seekers and certified graduates in the last three years.

**Table: 6: Description of Skills Test seekers and graduates:**

SN	Year	Applicants			Appeared			Passed		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2019/020	25948	31551	57499	22918	28906	51824	17310	20625	37935
2	2018/019	27905	30874	58779	25755	29071	54826	18217	19302	37519
3	2017/018	34583	27420	62338	32246	25525	57771	24121	17196	41317

<b>Grand Total</b>	<b>192028</b>	<b>155421</b>	<b>116771</b>
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**(Source: NSTB) and TG 19 results are excluded from the table.**

NATHM trained trainees have not been linked to the skills test system yet. Expertise is being provided for developing the national occupation competencies and conducting skills tests (**NATHM**). Integration is an emerging concept. The concept will be addressed, once RPL and NVQF will be functional (**MoEST**). RPL process has not been started yet. Sector committees led by business and industry are functional. Industries have a fear if workers are certified; there will be a high turnover of the workers. However, industries will not hinder the skills certifying system. There is also a positive aspect, if a worker is certified, s/he will move for better opportunity which will lessen the problem of unionism (**HAN**). There are already skilled workers, becoming such through work experience. There are no positions available in the industries; however, the workers become senior by experience. There is professional mobility in big industries and corporate offices, but not so much in small industries. Industries under the CNI umbrella have provisions to integrate the career of professionals (**CNI**). Job placement and career counseling services linking to business and industries will promote integration mechanism. The training graduates are made mandatory for having skills tests and seeking skills certificate (**EVENT II**). There was a plan for skills tests for the training graduates, but it could not be materialized (**VSDTA**). There is a mixed picture of skills tests among the business and industries and training providers. A massive awareness program is needed to educate people for the significance of skills tests and integration and mobility within the TVET sector.

#### **13.4.3 Skill Standard Development/Revision Process**

By now there are 299 national Occupational skills standards developed. Demands are collected from institutions and business and industries before developing the national occupation standards. Once demands are collected, DACUM workshops are conducted by involving experts according to the norms of the DACUM procedure. Once the profile of job analysis is prepared, verification workshops are conducted. With the input of workshops, a team of experts develop the national occupational standards. The technical committee or Sector Skills Committee further provides the input in the standard. The sector committees are led by business and industries. The final version of the competency is taken to the Board where 50% representation is from business and industries. The revision process is also the same as the process of new standard development (**NSTB/CTEVT**). NATHM experts involve in skills standard development and revision process (**NATHM**). The lead role of business and industry through the sector skills committee is in limited sectors. Although the experts from business and industry are involved in standard development and revision process, their involvement is at individual level which needs to be institutionalized to make business and industries responsible for the outcome.

#### 13.4.4 Credit Transfer in TVET Programs

There is no practice yet to transfer credit in TVET programs (**NSTB/CTEVT**). There is no such provision of credit transfer or credit accumulation by its title itself (**R&I/CTEVT**). **NSTB/NVQS** is preparing guidelines for credit accumulation. Once the NVQF is made effective, credit transfer and credit banking will be functional in the future (**NVQS/ NSTB/ Swisscontact/CTEVT**).

#### 13.4.5 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 occupations which affect life-long learning, skills upgrading and demand forecasts (**FNCCI**). Five professional organizations such as FNCCI, FNCSI, FCAN, CNI and HAN are working on Industrial Classification of Occupational Skills Standards (ICOSS) with the assistance of Dakchyata project (**HAN, CNI, FNCCI and FCAN**). The available NSCO is not up to the standard which needs to be improved together with the participation of employers (business and industry). The recent effort of the Dakchyata supported project in collaboration with employers will bring a new milestone. CTEVT from supply side and leading associations from demand side need to take lead role to develop a complete industry owned NSCO.

### 13.5 TVET Policy Implementation

#### 13.5.1 Situation of TVET Strategy and Road map

CTEVT strategic plan 2020-24 has been prepared in a draft form and is not published yet. The TVET policy 2012 has been superseded by the integrated National Education Policy 2019 (**R&I/CTEVT**). There was initiation to develop TVET strategies and road map supported by ADB, but this did not appear in circulation (**NSTB/CTEVT**). The support for developing a strategic plan 2020-24 of CTVEVT has been provided. Piloting to develop Center of Excellence in tourism, agriculture and construction in Pokhara, Lahan and Tikapur has been conducted (**Sakchyamta**). The Cabinet has instructed MoEST to develop the legal structure and governance of NVQS through CTEVT and the work is being done (**NVQS/NSTB/Swisscontact/CTEVT**). There are CTEVT Act, rules and byelaws functional, and National Integrated Education Policy 2019 is approved and published. Government policy and programs 2019/20 are in operation (**MoEST**). There is no information about TVET policy and strategic road map (**NATHM, VSDTA, and CSSIPC**). Now there is an urgent need of advocacy, dissemination, policy dialogues and developing further strategic plan in line with Integrated National Education Policy 2019.

#### 13.5.2 TVET Implementation Plan

Strategic plan 2020-24 has been prepared and is in a draft form. It needs to be approved and brought into circulation (**R&I/CTEVT**). Three Center of Excellence in Pokhara, Lahan and Tikapur are being developed through Sakchyamta Project. Twenty-five E-learning classes are built in CTEVT constituent schools. E-learning materials are being developed. Thirty vocational curricula are being developed and revised (**Sakchyamta**). All preparatory tasks have been completed for RPL assessments. Guidelines for

national occupational competency development, assessment package development, credit transfer system and accreditation and licensing to assessors have been developed. The consultant is hired to develop the legal provisions and structure of the National Vocational Qualification Authority. Separate skills testing units will be established in all provincial offices of CTEVT (**NVQF/ NSTB/ Swisscontact/CTEVT**). TITI has made a request to establish units in all provincial offices of CTEVT for instructors' training purpose (**TITI**). There is a plan to implement 50-days training of life useful skills to ultra-poor unemployed youths. The plan is to train 59,500 targeted people through assistance from the World Bank. For the training, separate modules in different occupations will be developed. 753 employment coordinators (Sub-overseers' level) in each Palika have been appointed. Orientation training has been provided to 2,229 Chief Administrative Officers and Employment coordinators (**PMEP**). Business and industries together with Dakchyata project are working to develop labour market information system and National Standards of Occupation Classifications (**FNCCI**). Integrated National Education Policy 2019 has been approved and published. National Periodic Plan (15<sup>th</sup>) which is having many TVET development provisions has been planned and soon will be implemented. MoEST is drafting a 10-year strategic plan among TVET offering ministries. Technical Division within the MoEST has been established to manage the TVET programs. Eight different projects have been working to enhance the TVET system. There are more than 15 different programs related to TVET under Technical Division, MoEST, which are being implemented (**MoEST**). There are many more plans to enhance the TVET programs. However, in absence of the coordinated mechanism, the complete picture of the plan of TVET development and consolidation is not observed through a single window.

### **13.5.3 Major Initiatives of TVET Policy Implementation**

The main change brought in TVET is the new national integrated education policy 2019, which has superseded the TVET policy 2012. There are initiatives taken regarding TVET access, relevance, quality, and integration but there is still no initiative 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 1,557 formal TVET institutions. Similarly, there are more than 1,100 institutions which offer demand-based vocational training programs. For quality and relevance, demand driven curricula are developed, effective monitoring and supervision and certification is being exercised. Various types of scholarships are provided to promote access and inclusion in TVET. NVQF has been developed for facilitating inclusion (**R&I/CTEVT**). 9-12 technical education streams have been implemented and expansion of technical schools and polytechnics even to Palika level has been initiated (**MoEST**). However, there is a huge task ahead to disseminate the new policy to the bottom level stakeholders. Pre-diploma health related programs have been closed due to the policy of National Medical Commission (**ACC/CTEVT**). The Dakchyata Project has provided support for developing Policy



Guidelines, Materials and Tools on TVET Practical Partnership approaches so that TVET Policy is implemented in a perfect level. The Project has also been conducting “Annual Review Study of TVET Policy Implementation-Reform from 2017. This report is the outcome of Review Study of 2020. The Review Study identifies the issues of TVET implementation in a comparative approach of each year and provides suggestions for necessary implementation reform (**Dakchyata Project**).

#### **13.5.4 Human Resource Development in TVET**

All trainers under CTEVT system have been provided instructional training. Leadership training and skills upgrading training are being conducted according to the need of the system. Scholarships for further studies such as B.Tech Ed and M. TVET are being continued to the professionals within CTEVT (**R&I/CTEVT**). 6,615 person/week training to 1,400 individual instructors is conducted. Skills upgrading trainings placing instructors in business and industry are delivered. Instructors and leadership trainings are conducted, having MOU with Sakchyamta project, Dakchyata, ENSSURE, NVQS and EVENT II projects (**TITI**). NVQS trained 15 experts for national competency development, 14 experts in RPL, 5 skills assessment, 8 process managers, 34 master assessors and 500 assessors. Up to now more than 6,700 assessors have been trained. The experts were trained both within the country and abroad (**NVQF/ NSTB/ Swiss contact/CTEVT**). There is a committee formulated to overview the need of human resources. Teachers are trained within the campus by hiring the external master trainers. There is a plan to train teachers through TITI. The teachers were trained to carry out research and studies (**NATHM**). There is a plan to establish the training institute to develop human resources needed to the industry. The association can offer even scholarship to the potential workers if requests are received. There is also a plan to have collaboration with CTEVT. The MOU is already made with Advanced Engineering College for internship of Engineering courses (**FCAN**). There was a committee to project the need of human resource development and the report is submitted. The initiation is made to open up three colleges in the field of railway, mining tunnel and hydropower. The colleges will produce teachers needed for the sectors. There is also a plan to develop curricula for dairy science and printing press. Scholarships to potential individuals are being administered within the country and abroad (**MoEST**). Big hotels and big industries have their own human resource department scheme. Small and medium level hotels and industries send their workers to the big hotels and industries for exposure. There is no such support from government side. There is even not any attraction such as tax exemption or other ways of support to encourage the private sector to develop human resources (**HAN**). Leadership, management, TOTS and Assessors training have been conducted in coordination with TITI (**EVENT II**). There is no system for positive recognition of skills upgrading and testing within industry. There are training wings in some big industries, but industries are reluctant to develop human resources with the fear of salary bargain and high rate of turnover (**CNI**). There are a lot of efforts being made in human resource development at

individual level. However, there is no such university to prepare highly skilled TVET professionals. The initiation made by MoEST to open up the specialized colleges, may fulfill the need of such human resources in the future.

### 13.5.5 Capacity Development in the TVET Sector

Capacity development can be considered at three levels: individual, institutional and organizational. In line with this notion, there is no such plan to develop capacity at all three levels. However, there are efforts in a scattered way. Individuals are being trained as discussed in the previous section.. Capacity development of institutions and organizations need much more efforts and investment. Capacity development needs of TVET professionals and trainers are not systematically addressed but initiations have been started (**MoEST**). There is no higher education institution to prepare TVET professionals, managers & leaders except MTVET program of KUSOED. Industry and business are interested to develop human resources, but they have constraints to release their professionals for further human development. TITI has been pleading to start to train B. Tech. and M. TVET. Kathmandu University has begun to train M. TVET, but the number is very small to cater the needs of TVET in Nepal (**TITI**). It has been realized that TITI's capacity needs to be developed so that it will be trust-worthy as a human resource development institution. However, on the collaboration with TITI and Dakchyata, please see the below. Tourism sector needs skilled workers for both front desk and back desk services (**HAN**). Institutional improvement in terms of its capacity is always incomplete and is receiving less attention. Individual trainers are trained and refreshed, but their professional development is always left in the shadow. 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 TVET development and governance (**VSDTA**). Donor support is heavily provided in all levels of capacity development such as scholarships are provided to individuals of vocational training to Pre-diploma, Diploma, B.Tech. Ed. and Master's degree in TVET level students. There are study tours, observations and different exposures to the TVET professionals in an individual level. Organizations are supported for policy formation, developing exams, accreditation and curriculum development. Projects such as EVENT II, ENSSURE, NVQS, Sakchyamta and Dakchyata are providing support for all levels of capacity development. Capacity Development Framework of TVET Personnel has been developed by Dakchyata in 2020 and approved by MoEST. Two events of training cum workshop for 39 TVET personnel from different government and private sector have been trained. The competency development framework will be published and disseminated widely in 2021. (**Dakchyata Project**).

### 13.5.6 TVET Structure under Federalism

Pre-diploma level examinations are administered, examined the answer sheets and prepared the results by the provincial level offices (**ECO/CTEVT**). CTEVT branches are established in each Province with roles and responsibilities. The provincial offices are running with sanctioned posts and staffs assigned by

CTEVT. A CTEVT restructuring report has been prepared, in which four Divisions are proposed. The divisions are: Curriculum, Human Resource and Planning, Quality Assurance and Technical. In addition, there will be National Vocational Qualification Authority and Technical Institute for Technical Instruction (TITI) at the center. This structural reform will be implemented once the revision of the CTEVT Act is approved (**ACC/CTEVT**). NSTB has expanded its units within the provincial CTEVT offices (**NSTB/CTEVT**). TITI has been requesting CTEVT for office facilities within the CTEVT provincial offices for its unit expansion. A focal person in each Province has been appointed with TOR and activities are being performed (**TITI**). Seven model polytechnic institutions are being developed at least one in each Province. TITI has the concept to develop facilities for skills upgrading in some selected institutions (subject wise). Such facilities might be useful even for B. Tec. Ed and M TVET (**TITI**). CTEVT provincial offices in all Provinces are in operation. The report of CTVET restructuring is prepared to make the system effective in a decentralized mechanism (**R&I/CTVET**). Guidelines, laws and rules have been developed and Technical Division has been made functional within MoEST and Sections for Technical Education has been opened up in each Directorate level (**MoEST**). 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 (**AITC/MoA**). Thirteen skills training centers under DoL were handed over to the provincial government. Three autonomous academies are developed in Bhainsepati, Butwal, and Itahari (**VSDTA**). The programs are conducted in all provinces in a proportionate manner (**EVENT II**). Though there are initiatives made in federalism, Acts, laws, rules and regulations are yet to be developed for clear divisions of roles and responsibility of all levels in terms of TVET development. Federalism does not mean expansion only. It should include Provincial autonomy as well.

### **13. 6. TVET Implementation Management**

#### **13.6.1 Effective Coordination Mechanism in TVET**

Each sector ministry has been working on their own way due to the absence of effective coordination mechanism (**R&I/CTEVT**). For an effective coordination mechanism in TVET, there should be timely Act and regulation of the establishment of a coordinating body, regular monitoring and supervision, coordination regulation and one door TVET funding, but a big gap is there for such provisions (**NSTB/CTEVT**). Coordination is always an issue. There is MOU in place with EVENT II project to train the Instructors. The agreement was to train both lead and assistant trainer on a compulsorily basis, but now they are flexible to train only the lead trainer. As a result, TITI plans and programs are affected (**TITI**). There are coordinated efforts being made through expansion of activities in the provinces, plans for workshops developed and awareness programs and public information campaigns (**Sakchyamta**). For effective coordination, legal provisions are to be made, but such have not come out yet (**NVQF/ NSTB/**

**Swisscontact/ CTEVT**). There is no coordination among business and industries in this respect. However, attempts are made to enhance coordination with business and industries through sector skills committees and also representation of business and industries in the council board, curriculum board, skill testing board and apprenticeship programs (**VSDTA**). Although there is coordination on fundamental policy related issues, there is not a mechanism to have effective coordination between training providers and business and industries. Now ENSSURE project is coordinating between training providers and business and industries through apprenticeship programs. OJT programs are presently the only means to build partnership between training providers and business and industries (**CNI**). Trained workers fly for overseas employment, business and industries are not getting trained workers as per their need. (**FCAN**). There is a coordination committee in place, and the committee holds meeting each month. Strategic plan is developed for 10 years and 16 ministries are on board. The plan comprises of advisory committee at the center, involving private sector, working committee and the roaster of TVET experts (**MoEST**) but this coordination committee do not have legal mandate. HAN is leading the sector skills committee of NSTB and is represented even in the policy level of NATHM. The coordination needs to be inbuilt in each program. The system should work and be institutionalized (**HAN**).

### **13.6.2 Assurance of progress of Policy Implementation**

There is no separate TVET policy once the Integrated National Education Policy 2019 has been enforced. In the past, there were more than 60 policy dialogue workshops throughout the country. However, the effect of such efforts was limited among the participants of the workshops. Most of the TVET stakeholders were found unaware about the TVET policy 2012. Now there is a new policy which needs effective strategies and plans to disseminate up to the grass root level (**R&I, CTEVT**). A Functional Regulatory Body is needed for regular monitoring and supervision and wider circulation of policy provisions, which can help achieve progress of policy implementation (**NSTB/CTEVT**). These stakeholders know nothing about TVET policy, the progress of TVET policy implementation is beyond question (**CSSIPC**). The progress of TVET policy implementation is good in projects such as EVENT because more requests of training recipients increased, more TPs are entertained, 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**). There is a 10-year common strategic plan among 6 ministries and private sector is also integral part of the plan. Therefore, the strategic plan and annual plans for its implementation along with monitoring progress will serve the purpose and help achieve the target of the TVET sector.

### **13.6.3 Coordinated Funding and Financing for sustainable TVET**

There were no efforts made for coordinated funding as provisioned by TVET policy 2012. The budget allocated for TVET programs are not sufficient, however, projects have budget but are hampered to spend the budget due to COVID 19 (**NSTB, ACC /CTEVT, TITI**). Guidelines for income generation in

schools have been developed. There are income generation units for raising the funds in schools. Students' fees for examination and budget to support vocational short courses by donors are some of the sources of sustainable financing, however, such efforts are small scale. There is huge amount of money allocated for the TVET sub-sector, but CTEVT as a mandated organization receives less budget for entire TVET development due to the absence of one door funding system (**R&I/CTVET**). COVID 19 taught the lesson to develop infrastructure and software for alternative instruction. The large-scale investment is required for such shifts. The forthcoming projects and budgets should consider the investment in the new dimension (**Sakchyamta**). There are enough budgets, but a challenge to spend in time (**VSDTA**). The new integrated National Education Policy 2019 has been introduced. Based on the policy, there is the joint 10-year strategic plan among TVET offering ministries. Now the budget allocated to TVET is not enough. However, the joint strategic plan for ten years will work on coordinated and sustainable funding (**MoEST**). There is restricted authority to spend the budget. Problems arise due to the exchange rate and roughly estimated budget, though targets are achieved but budget remains unspent (**EVENT II**).

### 13.7. The Effects of COVID 19 Pandemic

#### 13.7.1 Challenges of COVID 19

Entrance examinations and regular examinations could not be conducted physically. Alternative approaches were applied. Trainees applied through online and selection was done based on the merit of the grades they obtained in SEE. The academic calendar has been affected and examinations were postponed (**ECO/CTEVT**). Every program and sector faced hard times due to pandemic. Only theoretical classes were conducted through online. The nominal participation of students raised the question of effectiveness of online classes. Many students could not join the classes because of effective online service. COVID 19 caused delay in implementation of academic calendar (**ACC/CTEVT**). Online classes are not effective for work-based learning. There is a need of psychological counseling after a long gap. Academic batches have been overlapping, which demanded more facilities and human resources. Health related safety raised the cost in instruction (**R&I/CTEVT**). Due to the difficulty in conducting meeting physically, job analysis process of curriculum development has been hindered (**CDED/CTEVT**). Despite COVID 19, targets have been achieved. However, plans could not be followed and there was difficulty in conducting skills upgrading training. While conducting online classes, technological problems were faced (**TITI**). Field level programs could not be conducted. Procurement related activities have not materialized. Research related activities could not be done, due to mobility to collect primary information. Programs and plans could not be implemented as scheduled. Exposure visits and studies have to be revised, as a result, approved budget remained unspent (**Sakchyamta**). Training programs were postponed and target could not be achieved (**VSDTA**). Huge number of returning migrants was rescued by special flights. Regular programs were hampered. More than 30% staff was infected by

COVID 19. More than 200,000 people were to be trained, but up to now only 2,000 people have actually been trained. Allocated budget is not spent, milestones are not achieved, no physical meetings are conducted, and coordination is hampered (**PMEP**). Implementation of schedule activities was hindered. Practical classes could not be implemented and there is delay in achieving targets (**NATHM**). The situation from April till now is not normal. Tourism industry is badly affected (**FNCCI**). More than 40% industries and companies remained closed almost for six months. New monetary policy gave some light of hope and slowly industries began their operation. There was no mobility of workers, no supply of raw materials, no production and no distribution of the products (**CNI**). There was absolutely no work for four months. Everything is pushed back for one year. Preparatory works at the construction sites were destroyed, which caused 65,000 million rupees loss and there is 341, 000 million rupees loan given, which has to be repaid (**FCAN**). Whole programs and offices were closed for four months. There is loss of an academic year and the number of dropout of students has increased. Access and efficacy of net services caused problem for online classes. There is loss of employment, mostly in private sector. Many people became victims of depression. There is also irreparable loss, that is loss of human lives. Plans and management became failures (**MoEST**). Tourism is in a red zone. Such will be in effects until 2022 if vaccination will be ineffective and industries are in recession (**HAN**). There are problems even to implement the plans of the last year, participants are irregular and there are problems to conduct third party evaluation (**EVENT II**).

### 13.7.2 Opportunities Created by COVID 19

Working procedure for online learning as an alternative approach has been developed (**ACC/CTEVT**). Rapport building with students after a long gap is being done through online and offline classes. It has been realized that work-based learning is useful in a pandemic situation, because workers remained within the business and industry (**R&I/CTEVT**). Courses for virtual learning have been designed. Instructors became habituated to use the new technology; Participants got new excitement and became enthusiastic using technology in virtual classes. E-mails were used for instructions (**TITI**). E-learning through digitally supported technology has been promoted. It taught the lesson to develop infrastructure and software for alternative approaches in a similar pandemic situation. There is a realization to develop a center for e-learning facilities and TITI needs to be developed as a center hub of e-learning facilities (**Sakchyamta**). Capacity development in information technology and compatible infrastructure development together with friendly use of technology were promoted (**PMEP**). During the peak of the pandemic, beautification of the institution was made. Labs and workshops were updated and online classes were conducted by using the different means of alternative approaches (**NATHM**). Certain industries related to food supply grew well during the pandemic (**FCCNI**). Certain industries such as food production, mask production and items related to health and hygiene boomed. Masks of 50 million

rupees' worth were exported to the US. Online practices were increased through improved software and technology. Health sector got priority to develop infrastructure and there is direction given by Rastra Bank to lower the interest rate of loans (**CNI**). It taught the lesson to promote national contracting professionals to replace the foreign companies, generate employment within the country and develop health protocols to follow in working conditions (**FCAN**). Awareness of health and hygiene has increased. People became habituated to use new technology and industries related to food and health is promoted (**MoEST**). It made it possible to move to virtual gainful employment verification. It opened for thinking on alternative access and developing of infrastructure (software and hardware) for the sustainable use of alternative approaches (**EVENTII**). These are some opportunities of COVID 19. However, the opportunities are less than the loss caused by the pandemic.

### 13.7.3 Initiatives Taken to Assimilate Returning Migrant Workers

There is a discussion on utilizing returning migrant workers by involving them in agriculture by providing them short-term vocational training and help them involve in self-employment. NSTB has asked for data collection to determine available skills and skills gap for skilling, re-skilling and up-skilling of the returning migrant workers (**R&I/CTEVT**). Information of 30,000 workers have been collected to bring them in RPL scheme (**NVQS/NSTB/ Swisscontact/ CTEVT**). There is the program to train 59,500 unemployed people from ultra-poor economic strata for ensuring minimum 100 days employment (**PMEP**). A plan needs to be developed jointly with Government. A forum for foreign employment and returning migrant workers management has been constituted. The chairman has developed a vision document to create employment for 400,000 youths each year (**FNCCI**). The portfolio of such workers is to be prepared. The discussion is being done to utilize resources of the returning migrant workers. TVET policy needs to be reviewed to address the newly emerged challenges (**CNI**). There is a committee within the MoLESS to develop alternative approaches to assimilate the returning migrant workers. Local authorities will be activated to collect, manage and feed the information through Employment Information Service Centers (**MoEST**). Government service centers are not effective for information and roaster management. Domestic tourism needs to be made effective through the “Desh Darshan” program. National policy should focus to attract foreign tourists by promoting yoga, herbal processing and maintaining the nature beauty. “Honesty is the best policy” is to be maintained by all to assimilate the workers into the community (**HAN**). No cost extension of the project is requested. There is a migrant workers window in the project in which there is a target to train 5,500 returning migrant workers. The project is facing difficulty to gather individual information since they are scattered throughout the country. Coordination support is needed from Ministry level for information (**EVENT II**).

## **14. Progress made in TVET Implementation in 2020**

In this section, information on the progress and achievements with respect to TVET issues obtained during the annual review of 2020 is documented and presented. The information of achievements of the annual review of TVET implementation by January 2021 has been presented in seven different clusters of the TVET issues identified in the study report.

### **14.1 Equitable Access in TVET**

#### **14.1.1 Basis of TVET institution establishment or skills training selection**

The basis of institution establishment and training selection has been made with the information derived from rapid market assessments, training needs assessment, labour market studies and tracer and follow up studies. In many cases, government plans and projections are followed. Individual requests, requests from business and industry are entertained. In some situations, academies have been established after the names of national heroes, who have contributed to the nation and political reform. There has been massive expansion of TVET institutions in 2020. The establishment of technical education stream in 484 government community schools was the plan of Nepal Government to increase access of recipients. CTEVT has approved 16 additional formal programs in its constituent and TECs this year. CTEVT had plans to provide vocational training to 42,000 people last year and has executed this year in all provinces, funded by Nepal Government. EVENT provided vocational training to more than 25,000 people this year. CTEVT started the Dual VET program for 100 recipients and now they are providing apprenticeship training to 500 people this year. In addition to having intake capacity in formal courses 72743 trainees, CTEVT offers formal programs to 560 DAG, poor and marginalized people and enrolled the students accordingly. Similarly, VSDTA, NATHM and CSSPC also offered vocational courses to thousands of needy people. PMEP has planned to train 59,500 people to ensure minimum employment to ultra-poor unemployed people. CTEVT-affiliated institutions have been offering vocational training courses to hundreds of thousands of individuals, but the problem lies in coordination and information management as a result, there is duplication in efforts and resources.

#### **14.1.2 Scholarship Provisions in TVET**

Ten percent of trainees receive classified and intelligent scholarship in each academic program of CTEVT and the system is continued. CTEVT provided vocational training in various occupations to 42,000 people in all provinces this year, as additional funds provided by the Government. These vocational training programs offered by CTEVT are free of charge. CTEVT has been providing apprenticeship training to 500 people supported by ENSSURE projects. EVENT II introduced voucher-based funding for vocational training with approved criteria to 25,000 people in 2020. Total 1,200 students of Diploma and pre-diploma programs received voucher-based scholarship in 2020. VSDTA and CSSPC offer vocational training courses at free of cost. PMEP is offering free of charge vocational training to 59,500 unemployed and ultra-poor youths in 2020.



### **14.1.3 Type of TVET Institutions in Operation**

CTEVT constituent, affiliated, affiliated vocational training institutions, CTEVT supported technical education at community schools, MoEST run 9-12 technical education as a separate stream at community schools. Affiliated undergraduate professional education and institutions with partnership with Palikas are the type of institutions in operation. CTEVT also runs apprenticeship program for 500 youths supported by ENSSURE project. Kathmandu University has been offering M. TVET to TVET professionals. The types of institutions are the same as of last year.

### **14.1.4 Type of TVET Programs in Operation**

There are programs of different natures being offered by TVET institutions. Universities offer Bachelor and Master level technical and professional education programs. CTEVT and its affiliated institutions offer diploma, pre-diploma and vocational short courses with the duration of 390 hours to three years. CTEVT has also operating Dual VET in association with business and industries. Instructor training and recognition of prior learning and skills assessment are other modalities to certify the level of skills or qualifications. The projects supported training programs and trainings offered by other government agencies are of short-term in nature. The types of programs are the same as last year, except the programs being offered by PMEP. They are designing the modules of terminating nature to address the livelihood skills to ensure minimum 100 days employment program in 2020.

## **14.2 TVET Relevance**

### **14.2.1 LMIS Current Situation in Nepal**

There are information portals being operated for employment opportunities, which are under the jurisdiction of Province Government. MoLESS has planned to operate Information Service Centers at Palika level. MoEST and CTEVT also have LMI systems, but the systems are not effective. MoEST and CTEVT have TMIS in operation. There is ELMS project supported by Dakchyata led by five professional organizations (FNCCI, CNI, FNCSI, FCAN and HAN), which are working to develop demand-side LMI system. CTEVT conducts research and studies for identifying demands of skilled workers in the country and abroad. NATHM also conducts similar studies for its own development. There are scattered efforts in the field of labour market information system, however, such efforts are not consolidated and managed by one particular authority. There is a strong mechanism of monitoring and supervision being implemented by EVENT II project, but the experience and information of the system has not been widely shared. More or less the situation of the LMIS and TMIS is the same, but now ELMS project supported by Dakchyata is in existence and MoLESS has initiated to establish employment service center in all Palikas. They have already appointed the coordinators for the functional centers. ELMS project supported by Dakchyata, operated by business and industries for LMIS can be a good forum to coordinating all TVET actors and develop a national level LMIS having both demand and supply information at their disposal.

### **14.2.2 Tracer Study of TVET Graduates**

Every entity offering vocational courses have realized the significance of tracer studies. There are plans in some of the institutions for conducting tracer studies, but such are not executed due to COVID 19 effects. CTEVT has made it mandatory to conduct tracer studies at institutional level, but the information of such studies have not been linked to its LMI system controlled by the center. Impact and tracer studies are crucial for the effectiveness of TVET programs; however, impact studies have rarely been conducted. The situation of tracer studies is the same as it was last year.

### **14.2.3 Demand Forecast**

A demand forecast system is not institutionalized. Individual organizations and industries forecast demands through advertisement. Some institutions conduct TNAs and RMAs to identify the training needs. National Planning Commission is supposed to project the need of human resources,. Dakchyata has developed Occupational Demand Tools (ODT) along with an operational manual for Research and Information Division of CTEVT and Sakchyamta to analyze the demand for the occupations. The tools have been piloted in 3 sectors: construction, agriculture and tourism. Sakchyamta, supported by Dakchyata, has plans to replicate and expand the application of tools at province level starting from 3 Centre of Excellence schools of CTEVT. The ELMS project supported by Dakchyata can work in this line in the future. There is also a vision document prepared by FNCCI to create 400,000 employment opportunities each year. The vision document may push TVET programs toward increased relevance.

### **14.2.4 Private Sector Involvement in Selecting and Prioritizing TVET Programs**

Private sector is strongly involved in the policy level of all entities. Experts are being involved in curriculum and national competency development. CTEVT sector skills committees are led by the private sector. Similarly, the private sector has a pertinent role in the “Strengthening Employer Engagement in the CTEVT Schools (SEECs) project, supported by Dakchyata.. In this model, business and industries have a crucial role while conducting RMAs, TNAs and other studies for selecting and prioritizing TVET programs. ELMS project supported by Dakchyata is being implemented by national level employer associations. SEP project works with business and industries through its challenge fund.

### **14.2.5 Experiential Learning with Business and Industry**

Engineering polytechnic institutions have been practicing apprenticeship models with business and industry. Tourism and health related programs have work based learning inbuilt in curricula. Similarly, OJT and internship programs were the prerequisite of some of the training programs in the past, which is still on-going in 2020. Work-based learning is made mandatory to the programs supported by the ENSSURE Project. There is a big step taken by CTEVT with financial assistance of the ENSSURE project, offering 500 people VET training in a dual mode. Vocational Skills Development Academy had plans to promote apprenticeship training courses, but these could not materialize, due to pandemic. NATHM places the students of BHM program in hotels within Nepal and abroad for experiential

learning. TITI provides skills upgrading training to instructors together with business and industries. Similarly, TITI has developed six occupational skills upgrading curricula and trainings have been conducted in six events in 2020.

#### **14.2.6 Training Modality**

In-house training, On-the-Job Training, internship and apprenticeship are some of the TVET training modalities. Similarly, outreach, mobile and satellite training modalities are also in practice while conducting TVET programs. Some training programs such as those related to adventure (rafting, bungee, paragliding and expedition) are conducted at the site itself. There is TVET-PPP models being piloted by Dakchyata project by selecting 10 viable private training providers and employer associations this year. These institutions are piloting different innovative TVET-PPP models within vocational training and capturing the lessons learnt.

#### **14.2.7 Curriculum development and revision process**

CTEVT applies DACUM and Functional Analysis tools for developing and revising vocational short term and pre-diploma level curricula and national occupational skills standards, but different approach is applied for developing diploma level curricula. CTEVT has also developed the guide lines to develop common curricula and also offers equivalency services to the graduates of overseas institutions. Other agencies such as VSDTA, NATHM and CSSPC involve instructors to develop their respective curriculum. The Sakchyamta project has provided support to develop 15 new vocational short-term curricula and revised 15 existing curricula this year. Manuals are being developed by selecting instructors and assisted by the procured consultant. TITI has developed 6 OSU curricula, 6 skills cards and e-learning materials this year. A manual to develop Competency and Credit Based Curriculum developed by Dakchyata in 2019 is still with Sakchyamta for application.

### **14.3. TVET Quality**

#### **14.3.1 Assurance of Quality Input/Learning in TVET**

CTEVT has guidelines and tools for monitoring and supervision to ensure well-equipped facilities and instructors before they provide affiliation. Similarly, there are attempts being made to design market driven curricula. NSTB has different guidelines for skills testing procedures. TITI has conducted massive professional training, totaling 6,615 person/weeks this year. 1,400 individual instructors were trained with the assistance of EVENT II and Sakchyamta projects. Similarly, they have also been training instructors with skills upgrading as to ensure the quality input in TVET programs. Instructor licensing was debated in the past, however, such initiation has not materialized yet. EVENT project has six rounds of monitoring and supervision mechanism during each cycle of the training. E-learning materials are in process of development this year. Similarly, the tools for accreditation are also being developed. A quality assurance framework was prepared by Sakchyamta/CTVET but its proper implementation is yet to materialize.

### **14.3.2 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 input. However, such process inputs are yet to be systematized and regularized in Nepal's TVET system. 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. T U conducts evaluation and there is 100% result in academic programs of NATHM. More than 89% graduates of academic programs of NATHM are employed and there is more attraction in foreign employment. The process input to ensure the quality of TVET implementation is continued to be carried out in fragmented manner in 2020.

### **14.3.3 Assurance of Outcome of Learning in TVET**

Regular tracer studies linking such 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 applied to measure TVET outcomes. Impact study was conducted in some technical schools in the past. But impact studies and follow-up studies, which are powerful means of examining program outcomes, are not planned and conducted with a fixed interval. Minimum 70-80% employment is to be ensured by the training providers in the programs implemented by EVENT II. The actual employment of the project is more than 75%. More than 89% employment is there in formal courses offered by NATHM, but they do not have the information of graduates of short-term vocational courses.

### **14.3.4 Assurance of Effective Programs**

Quality training increase in employment demands, increased flow of training seekers, better results achieved and increment in the rate of employment of graduates, retention in the profession they are trained in will all together assure the effectiveness of TVET programs. The training is effective, but trained workers are not well represented in national employment. More than 75% graduates of EVENT II project are employed within the country, since they conduct income verification of the graduates six months after they complete the training program. More than 89% of formal graduates of tourism sector are in employment and mostly they are in foreign employment. Other entities do not have such information of the where about of their graduates. Some training graduates are also found unemployed in remote districts, but the reasons are not known. Although CTEVT has made tracer study mandatory at each TVET institution, program evaluation which measures the effectiveness of TVET programs is neither planned, nor prepared or implemented at central level.

#### **14.3.5 Switching TVET Programs**

CTEVT has closed all health-related pre-diploma level programs due to the policy of National Medical Commission. There are not any initiatives for switching TVET programs and utilizing the resources being used for health-related pre-diploma programs. Again, follow-up studies of the graduates and their employers are needed to find out whether the program should continue or should be switched to other programs. Since such research-based information is not available, the decision to stop a program or switching to other occupational area on demand cannot be made.

#### **14.4. Integration and mobility in TVET programs**

##### **14.4.1 Assurance of RPL in TVET**

Assessment and recognition of prior learning (RPL) leading to vocational qualifications within the framework National Vocational Qualifications (NVQ) facilitates the integration of various modes of learning and pathways. RPL pilot test has been conducted. RPL guidelines were developed. Assessors of RPL have been trained. The wing within CTEVT for RPL has been set up. Information of 30000 returning migrant workers has been collected. Individual portfolio of returning migrant workers is being prepared. NOSS development in various occupations is in process. RPL is fully institutionalized concept with qualification level L1- L8. There is the plan to conduct RPL for 5000 people this year.

##### **14.4.2 Functioning of NVQF in TVET**

The Cabinet has approved NQF and directed MoEST for developing legal provisions, structure and governance. Upon the instruction of MoEST, CTEVT has procured consultant and the consultant is working on to develop legal provisions, structure and governance mechanism of NVQA. The frame work comprises of L1-L8 including RPL and life-long learning. Various guidelines have been developed. 37935 successful candidates have been certified with skills test certificates this year. The number of successful candidates slightly decreased this year due to COVID effect. However, the process remains continued till the end of fiscal year 2077/078 which will add the number of skills test seeker significantly. The consultant has been working on developing legal provisions and structural governance of NVQA.

##### **14.4.3 Skill standard development/ revision process**

Sector Skills Committee members are involved in development and revision process of skills standards. Six new National Occupational skills standards have been added in the list and there are total 299 National Occupational skills Standards. However; the system of skills standard development and revision process has remained unchanged as it was in the last year.

##### **14.4.4 Credit Transfer in TVET programs**

There are some practices on credit transfer through incorporating in curriculum and endorsing it within its condition. There is no practice yet to transfer credit in TVET programs. Once NVQF is enforced, credit transfer system will be functional. The concept is still virgin within the TVET system. However the guidelines for credit accumulation and transfer are prepared by NVQ/NSTB.

#### **14.4.5 Nepali classification of occupations**

There are problems in identification of occupation which affects life-long learning, skills upgrading and demand forecasts. However, ELMS project is working on to develop National Standard of Occupational classification at least 10 occupations in agriculture, construction and tourism each from this year. This initiation is just a start off of the process and needs to be carried out in future for complete package of NCOS.

### **14.5 TVET Policy Implementation**

#### **14.5.1 Situation of TVET strategy and Road map**

There is still CTEVT Act formulated in 1989 but now new TVET Act is developed and is in a draft form. Similarly, the old TVET policy 2012 was superseded by new integrated National Education Policy 2019. CTEVT has developed strategic plan of 2020-2024 in a form of report. National Planning Commission is introducing 15<sup>th</sup> period plan in which there are many provisions in line with New Education Policy 2019 for TVET development. MoEST is in the process of the development of 10-year TVET Sector Plan and aims to complete by the end of this fiscal year 2077/2078.

#### **14.5.2 TVET implementation plan**

TVET implementation guidelines are developed. Guidelines for delivering vocational courses are also developed. Since the integrated National Education Policy 2019 has been introduced, TVET Policy 2012 became a history now. The events conducted 60 policy dialogue workshops assisted by SKILLS Project of UNDP also became the events of the past. Now there is CTEVT strategic plan of 2020-24 in a report form. There is a joint strategic plan of 6 TVTET offering ministries for ten years. It is hoped that the plan will coordinate the TVET stakeholders and initiate a coordinated funding mechanism.

#### **14.5.3 Major initiatives of TVET policy implementation**

There are remarkable achievements in the field of TVET expansion. There were five TVET institutions in 1980 but there are more than 1557 formal TVET institutions and more than 1100 TVET providers offering demand based vocational training programs. For quality and relevance, demand driven curricula are developed, effective monitoring and supervision, certification is exercised, and various types of scholarships are provided for access and inclusion. NVQF has been developed for inclusion. There is strategic plan of CTEVT for 2020-24 and MoEST has developed the common strategic plan of six ministries to coordinate TVET programs. Similarly, NPC is bringing the 15<sup>th</sup> periodic plan having provisions of TVET development. It is believed that the common strategic plan will work on sustainable TVET financing.

#### **14.5.4 Human Resource Development in TVET**

By now, 6698 Skills Test Assessors and 456 Skills Test Managers have been trained and certified, further education of B. Tech. Ed. has been provided to personnel, and 7 staffs have completed Master's Degree in TVET. Numerous professional trainings in and abroad are being provided. Professional visits, seminars, workshops and meetings are organized and conducted. Capacity building efforts for enriching TVET

professionals both in and outside the country are made effective. 6615 person/ week's trainings on various professional levels were conducted on which 1400 individuals received such trainings this year. Human resource development of TVET within the MoEST has been projected which is in a report form. A competency development framework (CD framework) has been developed and approved by MoEST in 2020 in the support from Dakchyata. Two event of piloting training and workshop on TVET Policy, Programs and Practices have been conducted with 39 participants in TITI. The replication at federal level and expansion at province level are planned for 2021 by Dakchyata.

#### **14.5.5 Capacity development in TVET**

Capacity development of all individuals, institutions and organizations is being done. Individual are groomed through TOTs, seminars, exposure visits, professional trainings and further studies in M. TVET and P. Hd. Degrees through scholarship provisions. Institutions are supported by equipping labs and workshops, additional infrastructure and e-learning facilities. Three polytechnic institutions are being developed as Center of Excellence in each agriculture, construction and tourism subjects. There are seven model polytechnic institutions being developed at least one in each Province. Capacity at the organization level is being developed through ACT revision, guidelines and regulations. Similarly, the report of CTEVT restructuring has been prepared. Legal provisions, office structure and governance mechanism of NVQA are being developed. All provincial offices are brought in operation with required staffing and facilities.

#### **14.5.6 TVET Structure under Federalism**

The province level offices of CTEVT are in operation. TITI and NSTB have also opened up their units within the CTEVT provincial offices. There is the report prepared for CTEVT restructuring. Legal provisions are being made for autonomous NVQA. 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. Thirteen skills training centers under MoLESS were handed over to the province government of respective province. MoEST has established Technical Division within the MoEST and technical sections have been opened up in each Directorate of MoEST. Every sector ministry is in process to develop policy, laws, rules and regulations at all levels from federal to Palika however, COVID 19 Pandemic caused delay in accomplishment of the plans and programs. Similarly, mechanism for coordinating functions and roles of three levels of governments need to be clarified in new TVET Act.

### **14. 6.TVET Implementation Management**

#### **14.6.1 Effective Coordination Mechanism in TVET**

For effective coordination mechanism in TVET, there should be timely Policy Review and revision, establishment of legally empowered coordinating body, regular monitoring and supervision, coordination regulation and one door TVET funding but a big gap is there for such initiations. There was Policy Coordinating Committee at MoEST to coordinate all Ministries and Departments involved in TVET

development but now scenario has been changed together with new integrated education policy. MoEST has developed a ten year TVET Sector plan together with six TVET offering ministries. MoLESS is going to establish employment service centers in all Palikas. Now, it can be hoped that there will be structured coordination mechanism backed by legal provision. Dakchyata has done all preparatory work for the development of Coordination Mechanism of TVET sector and planning to roll out in this year.

#### **14.6.2 Assurance of progress of policy implementation**

There is a new challenge of implementing the new policy even at the bottom level by disseminating and communicating to all stakeholders. More than 60 policy dialogue workshops were conducted as supported by UNDP and administered by MoEST to disseminate policy intents of TVET policy 2012. Similar effort is required to disseminate the integrated Education Policy 2019.

#### **14.6.3 Coordinated Budgeting/ Funding in TVET**

There is no new system developed yet and things remain unchanged. However, it has been claimed that the ten-year TVET Sector plan among ministries will have coordinated funding mechanism in future. Coordinated TVET fund is realized an urgent need in federalism.

### **14.7 Effects of COVID 19**

#### **14.7.1 Challenges of COVID 19**

There has been a global effect caused by VOVID 19 pandemic. Entrance examinations and regular examinations could not be conducted physically. Alternative approaches were applied. Every program and sector faced hard time. Only theoretical classes were conducted through online. The nominal participation of students raised the question of effectiveness of online classes. Many students could not join the classes because of effective online service. COVID 19 caused delay in implementation of academic calendar. Academic batches have been overlapped which demanded more facilities and human resources. Health related safety raised additional cost in instruction. There was difficulty in conducting skills upgrading trainings. While conducting online classes technological problems were faced. Field level programs could not be conducted. Procurement related activities were not materialized. Research related activities could not be done due to mobility to collect primary information. Exposure visits and studies have to be revised. As a result, approved budget remained unspent. Huge number of returning migrants was rescued by special flights. Tourism industry is badly affected. More than 40% industries and companies remained closed almost for six months. New monetary policy gave some light of hope and slowly industries began their operation. There was no mobility of workers, no supply of raw materials, no production and no distribution of the products. Everything is pushed back for one year.

#### **14.7.2 Opportunities created by COVID 19**

Working procedure for online learning as alternative approach has been developed. Rapport building with students after a long gap is being done through online and offline classes. It has been realized that work based learning is useful in a pandemic situation because workers remained within the business and



industry. Courses for virtual learning have been designed. Instructors became habituated to use the new technology; Participants got new excitement and became enthusiastic using technology in virtual classes. E-mails were used for instructions. E-learning through digitally supported technology has been promoted. It taught the lesson to develop infrastructure and software for alternative approaches for similar pandemic situation. There is a realization to develop a center for e-learning facilities and TITI needs to be developed for such purpose.

#### **14.7.3 Initiatives taken to assimilate returning migrant workers**

There is discussion on utilizing returning migrant workers by involving them in agriculture providing them short term vocational trainings and helping them involve in self-employment. NSTB has asked for data collection to determine available skills and skills gap for skilling, re-skilling and up-skilling the returning migrant workers. Information of 30, 000 workers have been collected to bring them in RPL scheme. There is the program to train 59500 unemployed people from ultra-poor economic strata for ensuring minimum 100 days employment. A forum for foreign employment and returning migrant workers management has been constituted. The FNCCI has developed a vision document to create employments for 400,000 youths each year.

### **15. Conclusion**

The expansion of TVET programs and institutions has happened in a rapid pace in terms of quantitative access and geographical coverage. The equity, access and inclusion in TVET programs are in improved condition, however, the efforts made in these issues are not taking place in a planned manner and in a coordinated form. There is LMI system in isolated form such as in CTEVT, MoEST and MoLESS, but they are operating the system separately and without coordination. CTEVT and MoEST also have TMIS in operation. The systems are uploaded with supply side information and are not linked to the demand side needs. MoLESS has planned to establish Employment Service Centers in all Palikas, which need to be linked to the nationally established LMI system. The LMIS being developed, led by professional organizations of business and industries through ELMS project supported by Dakchyata may fulfill the need of consolidated LMIS in the country. Training programs are selected through the information of TNA and RMA reports with limited scope and have databases, which do not reflect the national needs. Very few institutions conduct tracer studies, but the information of such studies is not included in training design and delivery.

Nepali standard classification of occupation exists in an incomplete form prepared by ILO and CBS which has no say by business and industry. Now ELMS project is operated by business and industry and supported by Dakchyata and will be developing Nepali Standard Classification of Occupations for at least 10 occupations each within construction, agriculture and tourism. This initiation is just a start and needs a lot of efforts in the future to become meaningful. There are national formats of occupational standards

which are poorly developed and have no connection with competence, skills and training standards, nor is the process of developing occupational standards well known to employer's community and other beneficiaries. Together with TVET expansion, quality is a challenge. Without quality output of the TVET, the desired outcome cannot be achieved. There are efforts to ensure quality delivery, however; national quality standards followed by all TVET actors are not in place. As a result, the quality of TVET output is questioned. The fragmented efforts of quality assurance need to be established through an integrated system. There is curriculum development system in place; however, there are a lot of lapses in its implementation. Recognizing Prior Learning is in practice, but recognition as qualification is still an issue 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 a big room for credit transfer and credit banking in the future. The private sector is still reluctant to participate in human resource development needed for their business and industry because of the fear of high salary bargain, unionism and high rate of turnover of staff. Big business houses have their own training facilities for training their professionals, but investment of private sector in TVET is not on the table. Capacity development at all levels such as individual, institutional, and organizational, is being done but not in a planned way and not given national priority.

Business and Industry still find TVET graduates not prepared according to their needs. They feel that there is mismatch between supply and demand in TVET. Private sector is involved in TVET from policy to the expertise level, but ownership of the decision made even in spite of their representation is often lacking. Business and industry are involved in the skills sector for the development process of National Occupation competency, curriculum development and assessment. Business and industry lead the skills sector committees, which have created space for ownership of decisions and engagement in human resource development process. Dual VET and apprenticeship models are jointly implemented. Wider efforts in this direction need to be undertaken. TVET policy 2012 has been superseded by the integrated Education Policy 2019. Many people were unaware of TVET policy 2012, though there was lot of effort made to disseminate and communicate the policy at grass root level. Now there is a big challenge to disseminate and communicate the new policy among TVET actors. The federalism in the country made the policy to bring in a new form necessary. The ministry level 10-year strategic plan and CTEVT strategic plan 2020-24 needs to play a vital role to develop a consolidated, effective and coordinated TVET system in the country.

COVID 19 has provided many negative effects on human life as well as on the overall economy. The challenges are like climbing Mt. Everest in the days to come. Together with other sectors, TVET was also badly affected by the pandemic. Things have not still returned to normality. Even this study has been conducted in an adverse situation. No entrance examinations were conducted physically for the first time

since the inception of TVET in Nepal. Alternative approaches were applied despite facing many difficulties. The academic calendar did not work and overlapping of classes and spacing requirements demanded more infrastructure and human resources. Health safety enforcement created an additional burden of cost. Industries remained closed and the tourism sector is still in the red zone. People lost employments and many people lost their valuable lives. Some industries faced billions in losses, since they left preparatory investment unattained, particularly in construction industries due to lockdown as season changed and their investment was swept away. It will take another two years to return to the normal situation, but only if vaccination will be effective. Despite of the challenges and setbacks, the pandemic has also created some opportunities. Institutions started thinking about alternative approaches. Significance of technology became more important and outspoken. Infrastructure and software developments became an urgent need of alternative delivery to face such pandemic in the future. Monetary policy lowered the interest rate and some industries such as food, medicine, mask and other goods of daily needs production got the opportunity to boom. The health sector got top priority to develop infrastructure, equipment and human resources. Large number of Nepali youths was in foreign employment, but because of the pandemic, they were to be rescued. The rescued youths are now jobless. There is the challenge to assimilate the rescued worker into the communities and make them productive, for themselves and for the country. The government and private sector are having plans to collect information of returning migrant workers. NSTB has collected information of 30,000 individuals and individual portfolios are being prepared. CTEVT is in the discussion level on how to skill them and involve them massively in agriculture for self-employment. NSTB will conduct RPL of 5,000 people and certify them. EVENT II project has a plan to train 5,500 returning migrant workers this year. Similarly, PMEP has plans to train 59,500 ultra-poor and unemployed youths in 2020, ensuring them at least 100 days of employment.

#### 16. Issues and Suggestions/Recommendations for Future Improvement

This section deals with the main broader TVET policy issues and ways to resolve the issues in the overall TVET reform process. Based on the information on review of the existing situation and reform accomplished in 2020 in TVET, the following broader TVET policy issues are identified:

Issue 1: How can equitable access in TVET for all be made effective?

Issue 2: How can TVET be made labor market responsive in terms of relevance?

Issue 3: How can the quality of TVET programs be ensured in terms of input, learning process, output and effective outcomes?

Issue 4: What provisions should be made for effective integration among formal, non-formal and informal learning and facilitate mobility and permeability in TVET?

Issue 5: How can TVET policy implementation be made more effective?

Issue 6: How can TVET implementation management be made more effective and result-oriented?

Issue 7: How can the effects of COVID-19 be mitigated?

Through information generated and feedback received from the stakeholders, the review team explored the ways and means of moving towards suggesting ways to resolve the above issues. The following section provides suggestions or recommendations with respect to each of the above issue. These recommendations are useful in the TVET reform process enhancing quality and effectiveness of TVET programs and services and provide ways of policy implementation and monitoring TVET progress.

### **1: How can Equitable Access in TVET be made effective?**

- TVET programs should be selected and prioritized, based on demand information in consultation with employers of the respective sector. Local government should be consulted, selecting TVET program for local economy, enterprise development and promotion of self-employment. Employers' needs and requirements should be met by all TVET programs and they should have a say in the selection of programs and expansion of TVET institutions.
- Fair and transparent system of registering and recognizing new institutions should be in place, based on nationally established quality criteria and standards. National body should develop standards, requirements and procedures and provincial government implement them.
- Employers' active involvement is being realized as vital and it should be further promoted by formulating relevant policy guidelines and legal authorization of industry-based skills development and opportunity of work-based learning for TVET students. The paradigm shifts from institution-based training to industry led training should be promoted. Apprenticeship model should have full emphasis and should be expanded in a systematic manner by bridging institutions with business and industry.
- Local government should develop the capacity to effectively managing vocational skills training programs in response to improving individual income and promoting local economy. TVET scholarships distribution should be governed by well versed guidelines and criteria in order to reach to the needy people with the input from the local government within municipalities.
- The unemployed population should be addressed with concrete interventions through various types and levels of TVET programs, organizing TVET programs of various qualifications from post literacy to secondary education level. TVET for enterprise development, job creation and for self-employment should be emphasized.

### **2: How can TVET be made labor market responsive in terms of relevance?**

- NPC or CTEVT should have a mainframe to collect and process both skilled workers' supply and demand information by developing functional labor market information system. Data flow from VDC/Municipalities, province, and center should be managed with the help of private sector (business and industries) and TVET providers.
- Based on labor market information, VET programs of all levels and types from livelihood to bachelor level should address the changing demands of the labor market. Coordination among Ministries, CTEVT, employer organizations and CBS should be made effective, backed by legal mandate.
- Employment Information and Support Centre under the MoLESS should be strengthened to facilitate employment of trained graduates. Unemployed youths should be assisted by providing information on relevant TVET opportunity that support their employment.
- Comprehensive survey of program effectiveness and graduate's employment and earning status should be carried out periodically, fed to LMIS and information about employed and semi-employed and unemployed population should be collected. TVET institutions should be capacitated to conduct tracer studies, utilizing procedural manual provided by mandated entity. Tracer studies should be made mandatory in all TVET institutions and information collected from all TVET providers should be fed in LMIS system. Annual occupational outlook should be published, based on the data of LMIS for general public.
- In every three years, graduates' follow up studies should be carried out at provincial and national level by making it mandatory to carry out such. Resources should be allocated each year to carry out follow-up studies on a regular basis at the central level. The information received from follow-up study of graduates and employers and their feedback should be linked to LMIS, and made the basis for program change or program selection, curriculum revision and switching training programs to newly emerged areas of employment
- Sector Skills Committees should be activated to increase employers' involvement in collecting information on growing skills demands, developing new or revising NSCO as per the reality of the labor market, facilitate placement for OJT or employment of graduates or students and assist in competency assessment. Capacity development of employers' community in assessing competencies, classifying and analyzing occupations and collection of information on labor market demands should be carried out continuously and in fixed intervals.
- In joint collaboration among CTEVT, CBS and business and industry (employers' community), occupational classification should be modified and corresponding standards of NSCO should be revised in line with the reality of labor market.
- There should be Sector skills committees with legal provisions for all sectors and the main responsibility should be given to the committees for entire process of occupational competency

development and revision. The development and endorsement process of NOSS should be institutionalized through active initiative by CTEVT and substantial participation of business and industry. Experiential learning for TVET trainees should be an integral part of TVET curricula to experience the real work situation in the world of work. Frequent dialogues between the employers and TVET providers should occur for the involvement of business and industry and it should be backed up by legal provisions.

- An Apprenticeship Act in consultation with business and industry should be developed with the provision to provide work-space, machine/equipment and 50% salary by industry and 50% by government or government-related projects to TVET trainees under WBL
- Gaps of needs of private sector involvement in TVET implementation should be identified and addressed accordingly. CTEVT should have capability to develop partnerships with business and industry and be assertive to convince and inspire them for promoting work-based learning and involving them in the entire process from demand collection to evaluation in TVET development.
- More input in the functional analysis approach to TVET curriculum development is needed in order to make curriculum developers capable and confident in mastering the functional analysis approach and theory/practical ratio provisioned by curricula should strictly be translated into classrooms/workshops/labs, which should be ensured through regular monitoring.
- Curriculum development expertise both at the central level and provincial level should be developed and established practice should be revived to design and revise the competency based TVET curricula by all TVET providers. Validation of such curricula should be done, based on the outcome of the training graduates.

### **3: How can the quality of TVET programs be ensured in terms of input, learning/ process, output and effective outcome?**

- Well-equipped training facilities and trained instructors with industrial experienced instructors and participating business and industries in work-based learning should be the pre-requisite of TVET quality.
- The curricula for experiential learning should be developed in consultation with sector skills councils. TVET policy including Acts and regulation should address a favorable environment, motivating business and industry by offering benefits to them to have ownership in TVET programs
- Emphasis should be given in institutional practice supplemented by OJT, apprenticeship or some kind of work-based learning opportunity by building partnership with relevant business and industries, professional associations, municipalities, and boards.
- A quality assurance system should be developed and implemented in an integrated manner through approved quality standards. Capacity development support and training to personnel of TVET should

be provided through TITI to use relevant tools and instruments for the assessment of 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.

- Program evaluation including an accreditation system in TVET should be made regular and effective as a means of quality assurance. Accreditation system at the province and TVET institutional level should be designed and implemented to ensure input and process quality.
- Competency assessment system should be focused to assess curricular outcomes through a reliable system of assessing learners' outcomes. Follow-up studies should be carried out at least in every three years to ensure persistency in outcome quality
- Teacher licensing should be enforced and theory as well as practical delivery should be made effective for promoting 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.
- Retention of skilled workers in the trained occupations in business and industry is a big issue. Economic and social life should be improved through TVET programs; impact studies have to be conducted at least in every 5 years to ensure positive impact in people's life through TVET.
- Policy support to offer incentives for skills training programs including work-based learning under partnership with business and industry should be developed and joint monitoring of business and industry and regulating authority should be in place for TVET implementation.

**4: What provisions are to be made for effective integration among formal, non-formal and informal learning and facilitate mobility and permeability in TVET programs?**

- Wider recognition and horizontal and vertical mobility through RPL should be ensured, based on NVQF empowered with a legal mandate. Competency Assessment and awarding qualification in line with NVQF should be materialized by an independent body. Legal provision should be made to institutionalize NVQA as a national authority for effective RPL and integrating vocational qualifications. Commodity associations together with government agencies should be convinced for promoting wider recognition of RPL
- There should be the 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 the newly developed National Vocational Qualification Framework. The recently developed and pilot-tested RPL should be enforced massively by creating a conducive environment to developing necessary infrastructure and trained human resources.
- A system of earning credit for informal and non-formal learning should be in place, once the NVQA and NVQS are in place. NVQF/ NQF, which facilitates horizontal and vertical mobility and the credit

transfer system, should receive a legal mandate. Mobility between TVET and general education should be made possible, utilizing recently developed NVQF. Moreover, non-formal, informal learning should be assessed, recognized and validated to earn national vocational qualification within NVQ framework. 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.

**5: How can the TVET Policy implementation be made more effective?**

- Policy coordination committees (PCC) should be made active with legal provision. Rules, regulations and acts should be formulated with clear functional division and funding provision within the framework of federalism. 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 national TVET road map and implementation plan should be developed and implemented in the changed context. A TVET policy implementation plan should be prepared and circulated through authorized channels and reach to the bottom of the TVET implementing agencies. The new integrated National Education Policy should have a strategic plan together with an action plan with clear roles and responsibility demarcation, stating who should do what in each level of government and among TVET actors. A strong monitoring mechanism should be developed at all levels of government to ensure proper implementation of planned activities in time.
- Attempts are being made to develop TVET HRD, but HRD plans should be prepared to produce TVET professional upgrade massively according to the plan in order to implement TVET policy effectively. TITI should build partnership with both business and industry and provide for developing trainers with industrial experience.
- Provincial TVET Council in each Province should be established to materialize TVET implementation at the provincial level and local government's level. Provincial Councils for TVET planning, expansion, quality assurance and monitoring in the province level should be made responsible in this regard. Emphasis should be given in employers' involvement in TVET policy implementation process at the provincial level as well.
- Central Government should provide TVET implementation authority to provincial and local level bodies, along with capacitating and educating them. Existing local TVET institutions should be mobilized to implement programs as envisioned by TVET policy through provincial council and local units. Development partners should support provincial TVET councils through projects and programs to build their capacities and promote equitable access to quality TVET.
- TVET being offered by all line Ministries should come under the umbrella of provincial government. Such provision should be backed up by Act, laws, rules and regulations in line with the federal



Constitution. Networking and collaboration should be established for information sharing and identification of needs of HRD of business and industry at the provincial and local levels.

- Donor support in HRD should be institutionalized through program approach rather than supporting on a pure project basis. Human resource development within the system is taking place, but it should be planned and coordinated among TVET implementers and implemented on the basis of an overall HRD plan. A comprehensive HRD plan should be developed at all levels of government, from center to Palika.
- Government of Nepal and Development partners supporting TVET should support Universities to run Bachelor and Master degrees in occupational education. Organizational capacity of education and Training Institutions should be enhanced to produce quality human resources, capable of delivering quality skills training and prepare skills workers acceptable to business and industry.
- Capacity of TITI should be enhanced to prepare quality instructors and TVET professionals capable of planning, delivering and evaluating training program to prepare skilled human resources
- There should be strong mechanisms to share success stories of increase in productivity, due to trained and qualified human resources in business and industry. Such a system should be operated by the registration form 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 and the scattered efforts of capacity development of individuals, institutions and organizations should be consolidated and published/shared, for the benefit of TVET stakeholders.

#### **6: How can the TVET implementation management be made effective and result-oriented?**

- PCC provisioned by TVET Policy 2012 should be continued in the integrated National Education Policy 2019 and the Government should be proactive in formulating of laws, rules and regulations for the TVET development. Umbrella policy though strong decision with one door system for training programs and budget should be developed by the Government. Wider policy dissemination efforts are in urgent need. There should be policy disseminating workshops throughout the country, since the newly integrated education policy has been enforced.
- A system of accountability assessment of TVET institutions and providers should be endorsed with a legal mandate. Based on the accountability assessment results, funding decisions should be made by the mandated authority for financing. Provincial skills development fund should be established and flow of funds should be ensured from center to Palika level through legal provisions.
- The Government budget and donor's contribution and training levy or payroll levy should be collected in these funds. Such funds should be managed at all levels and the achievements of the projects such as Dakchyata, ENSSURE, EVENT and Skills which is the outcome of pilot testing

should be institutionalized and up-scaling and replicating mechanism should be developed through coordinated and sustainable financing. Similarly, industry and business should be convinced to contribute in the coordinated fund by paying levy - in return, they will get the quality skilled workers they need.

### **7: How can the effects of COVID 19 be mitigated?**

- An assessment should be conducted to identify the sector-wise loss caused by COVID 19 and relief package for short-term, midterm and long-term should be developed and provided to rescue the business and industries that have been threatened by COVID-19.
- Alternative approaches of teaching-learning should be developed and adjusted, in light of the obstructed academic year(s). The projects' support in TVET should be diverted for the development of software, facilities, ICT based infrastructure and human resources for effective implementation of digitally supported TVET programs
- There should be a strong mechanism to collect individual information of returning migrant workers for identifying their skills level so that skilling, re-skilling and up-skilling training can be provided as part of their assimilation into employment at community level.
- There should be plans in all Federal, Province and Local levels to assimilate returning migrant workers into the community and a joint forum of government and private sector at all levels should be created to utilize the skills of the returned work force, turning the matter into a big opportunity for the country as a whole to benefit from.

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### **Annexures:**

- I. Annex 1: General Policy Implementation Review or Monitoring Framework

- II. Annex 2: Guiding semi structured Questions to MOEST, CTEVT and GAs
- III. Annex 3: Guiding semi structured Questions to Private Sector
- IV. Annex 4 List of participants of KII and organizations represented
- V. Annex 5 Review Matrix 2020